Reviews of Targeted Subsidies Influences on Reforming The Pattern of Electricity Consumption in Kahnooj Province

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INTRODUCTION

Subsidy is one of important government economical implements for protecting delicate stratusms and special productive sectors. In many economical systems, social security and welfare is of the special importance and this special attention, has caused a sector of government current expenses allocates to delicate stratusms by transitional payment [7]. The important subsidizing feature, is its timed and meaningfulness. If these payments go to the target groups, government aim has been achieved and social welfare and prosperity will be improved, otherwise beside disruption in price systems, just income distribution also will be destroyed. Experimental evidences show that in most cases, not only social and meaningless payments, have not affected on improving delicate stratum s income, but also have had more benefits for the groups with high incomes.

This matter is tangible, especially about energy carriers in which people enjoyment rate from subsidy is in direct relation with consumption. It's clear that if expense payment by the government contrasts with the aims, it is not explainable. Therefore targeted subsidies (gradual increase in high income groups proportion and decreasing low income group proportion) is a deniable necessity. [9]

Solutions for decreasing energy consumption and expenses are divided in to three groups: without any expenses, with low expenses and high expenses. Decreasing in electricity consumption expenses is just a small part of the outcomes resulted from energy consumption optimization. Its other considerable outcomes are: increasing electrical accessories lifetime, decreasing impairment sittings and finally decreasing production line pause expenses. High expense energy solutions also have acceptable capital return from 1 to 3 years. These solutions mostly relate to technology and energy production and will result in tangible saving electrical energy consumption. With gradual decrease in consumption optimization equipment price, energy price increase and decreasing sensibilities about electricity supply continuous, solution performance gets cheaper every year. In another classification, these solutions are classified in 4 main groups: technical and engineering, economical, law and cultural solutions [8].
Undoubtedly, energy unit experts’ important responsibility in country, design and introducing energy consumption optimization solutions is a kind that without welfare decrease and service consumption, wasting energy will decrease. This aim comes true when the energy is assumed as national capital and see it as a scientific matter than taste. In another classification, performing solutions for optimizing and energy consumption improvement can be divided in two: rating and non-rating.

Targeted subsidy program can be called as 10th government’s program and economic policies kingpin. Because according to government economical authorities sayings, most of 10th government economic policy and programs, including budget of 1389 and 5th economy improvement program has joined with this project. In an abstract, the terms of any program success, include exact understanding and presenting a complete picture of the situation, a correct definition of the issue, exact and realistic definition of actual facilities, presenting a clear and achievable picture of desirable (aimed) situation in future, choosing applicable programs with evaluated programs by scientific ways and finally, program expenses evaluation and defining the issues of the final vote for program acceptance or disapproval. Subsidizing can create new economic opportunities and also face challenges. Therefore we will study electricity industry challenges, and in continue we will go to introduce this issue [10]. In such conditions and according to targeted subsidies program and decrease in energy prices, reviewing electricity industry economic situation in Iran is of special importance as it can play an important role in country improvement in future [4].

Now that targeted subsidies’ program and its cash payment have been performed, it should be evaluated if the program has been successful in getting its main target that is reforming consumption pattern? In this regard, we decided to review the amount of targeted subsidies effect on electricity consumption pattern in kahnooj province. Therefore the main question in this research is that: Has targeted subsidies affected on electricity consumption pattern in kahnooj province?

Research approach:

This research has been conducted by descriptive-geodesic approach and is of applied approaches in target and has gathered data by Square studies.

Approach statistical community includes all citizens, home owners, shop keepers, farmers, workshop owners and factory owners in kahnooj province in 1392. In this research, sampling method has been simple accidental. For obtaining sample quantity, Kokaran formulation has been used. According to the formula, number of sample is 384 individuals that mean maximum possible number of samples when we do not have the number in the society with 5% of inaccuracy. A 32 question questionnaire has been used for reforming consumption pattern variable. Each question has 5 alternatives from 1:never to 5: Too high For questionnaire validity determination, exterior validity method has been used in a way that the questionnaire delivered to 5 of university professors and they were asked to express their ideas about the questionnaire and their proportion with research theories using these alternatives: Complete appropriate, Appropriate, Average, In appropriate, Completely inappropriate.

In this way, the questionnaire validity was calculated as 0/88. For the questionnaire final definition, Koronbakh alphabet method was used and the questionnaire last validity calculated 0/89.

For data analyzing, Descriptive statistic that includes table preparation and formulation (average, standard bias, affluence, affluence percentage) and chart drawing, discursiveness indicator and perceptive statistics including one sample T test and Khi two will be used. For different stages of statistic calculations in this research and its analyzing, SPSS software will be used. Meaningful level for research assumption confirmation will be Alpha= 0/05.

Research findings:

Table 1: One sample T test statistics

<table>
<thead>
<tr>
<th>Meaning fullness</th>
<th>Freedom percentage</th>
<th>T statistic</th>
<th>Average difference</th>
<th>Test quantity</th>
<th>Standard average</th>
<th>Quantity</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>384 22/59 0/80 2/5 0/09 2/35 384 0/019</td>
<td>Electricity consumption pattern reforming</td>
<td></td>
<td></td>
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<tr>
<td>384 2/83 1/05 2/5 0/32 6/07 383 0/000</td>
<td>Household electricity decrease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>384 2/59 1/52 2/5 0/09 1/21 383 0/224</td>
<td>Industrial electricity decrease</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>384 2/9 1/03 2/5 0/4 7/6 383 0/000</td>
<td>Using economic</td>
<td></td>
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</table>
Targeted subsidies has influenced on reforming electricity consumption pattern in Kahnooj province.

Data analyzing by one sample T test show that – p amount (meaningfulness) equals 0/019 and less than meaningfulness level of Alpha-0/05 so in this level the assumption of 0 is denied. It means there is a meaningful difference between resulted and natural Test amount average and as the amount of t statistic and the averages difference is positive, resulted average is bigger than natural average( test amount) so it can be said that targeted subsidies had affected on reforming electricity consumption pattern in Kahnooj province.

**Targeted subsidies influenced on household electricity consumption decrease in Kahnooj province:**

In order to see if targeted subsidies influenced on household electricity consumption decrease in Kahnooj province, we have used one sample t test. According to test statistic (t-6/07) because – p amount (meaningfulness) is 0/000 and less smaller than meaningfulness level alpha-0/05, so in this level, 0 assumption is denied. It means that between resulting average and natural average (test amount) there is a meaningful difference and as the t statistic amount and averages difference is positive, resulted average is bigger than natural average( test amount) so it can be said that targeted subsidies has influenced on electricity consumption decrease in Kahnooj province.

**Targeted subsidies influenced on decreasing industrial electricity consumption in Kahnooj province:**

In order to see if targeted subsidies influenced on decreasing industrial electricity consumption in Kahnooj province, we have used one sample t test. According to test statistic (t-1/21) because – p amount (meaningfulness) is 0/224 and less smaller than meaningfulness level alpha-0/05, so in this level, 0 assumption is not denied. It means that between resulting average and natural average (test amount) there is not any meaningful difference. So it can be said that targeted subsidies has not influenced on industrial electricity consumption decrease in Kahnooj province.

**Targeted subsidies influenced on increase in using economic electrical items in Kahnooj province:**

In order to see if targeted subsidies influenced on increase in using economic electrical items in Kahnooj province, we have used one sample t test. According to test statistic (t-7/6) because – p amount (meaningfulness) is 0/000 and less smaller than meaningfulness level alpha-0/05, so in this level, 0 assumption is denied. It means that between resulting average and natural average (test amount) there is a meaningful difference. So it can be said that targeted subsidies has influenced on increase in using economic electrical items in Kahnooj province.

**Targeted subsidies influenced on increase in using electricity without electricity meter in Kahnooj province:**

In order to see if targeted subsidies influenced on increase in using electricity without electricity meter in Kahnooj province, we have used one sample t test. According to test statistic (t-9/07) because – p amount (meaningfulness) is 0/000 and less smaller than meaningfulness level alpha-0/05, so in this level, 0 assumption is denied. It means that between resulting average and natural average (test amount) there is a meaningful difference. So it can be said that targeted subsidies has influenced on increase in using electricity without electricity meter in Kahnooj province.

**Targeted subsidies influenced on increase in using electricity before getting in to meter in Kahnooj province:**

In order to see if targeted subsidies influenced on increase in using electricity before getting in to meter in Kahnooj province, we have used one sample t test. According to test statistic (t-1/6) because – p amount (meaningfulness) is 0/11 and less smaller than meaningfulness level alpha-0/05, so in this level, 0 assumption is not denied. It means that between resulting average and natural average (test amount) there is not a meaningful difference and as the t statistic amount and averages difference is positive, resulted average is bigger than natural average( test amount) so it can be said that targeted subsidies has influenced on increase in using electricity before getting in to meter in Kahnooj province.

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<td>2/5</td>
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<td>0/11</td>
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<td>1/63</td>
<td>2/5</td>
<td>0/11</td>
<td>1/26</td>
<td>383</td>
<td>0/206</td>
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<tr>
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<td>1/54</td>
<td>2/5</td>
<td>0/11</td>
<td>1/43</td>
<td>383</td>
<td>0/151</td>
<td>Using mutual meter</td>
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<td>2/5</td>
<td>0/41</td>
<td>8/38</td>
<td>383</td>
<td>0/000</td>
<td>Using meters with low resistance</td>
</tr>
<tr>
<td>383</td>
<td>2/92</td>
<td>1/36</td>
<td>2/5</td>
<td>0/42</td>
<td>8/25</td>
<td>384</td>
<td>0/000</td>
<td>Using resistant constructing materials</td>
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</tbody>
</table>
difference. So it can be said that targeted subsidies has influenced on increase in using electricity before getting in to meter in Kahnooj province.

**Targeted subsidies influenced on increasing meter s manipulation by people in kahnooj province:**

In order to see if targeted subsidies influenced on increasing electricity meter s manipulation by people in Kahnooj province, we have used one sample t test. According to test statistic (t=1/26) because – p amount (meaningfulness) is 0/206 and bigger than meaningfulness level alpha-0/05, so in this level, 0 assumption is not denied. It means that between resulting average and natural average (test amount) there is not a meaningful difference. So it can be said that targeted subsidies has influenced on increasing electricity meter s manipulation by people in kahnooj province.

**Targeted subsidies influenced on increase in electricity meter mutual use by people in kahnooj province:**

In order to see if targeted subsidies influenced on increase in electricity meter mutual use by people in kahnooj province, we have used one sample t test. According to test statistic (t=1/43) because – p amount (meaningfulness) is 0/151 and bigger than meaningfulness level alpha-0/05, so in this level, 0 assumption is not denied. It means that between resulting average and natural average (test amount) there is not a meaningful difference. So it can be said that targeted subsidies has influenced on increase in electricity meter mutual use by people in kahnooj province.

**Targeted subsidies influenced on increase in using electricity meter with low tariffs in kahnooj province:**

In order to see if targeted subsidies influenced on increase in using electricity meter with low tariffs in kahnooj province, we have used one sample t test. According to test statistic (t=6/83) because – p amount (meaningfulness) is 0/000 and smaller than meaningfulness level alpha-0/05, so in this level, 0 assumption is denied. It means that between resulting average and natural average (test amount) there is a meaningful difference. So it can be said that targeted subsidies has influenced on increase in using electricity meter with low tariffs in kahnooj province.

**Targeted subsidies influenced on increase in using more Non-conductor construction materials in Kahnooj province:**

In order to see if targeted subsidies influenced on increase in using more non-conductor construction materials in kahnooj province, we have used one sample t test. According to test statistic (t=8/25) because – p amount (meaningfulness) is 0/000 and smaller than meaningfulness level alpha-0/05, so in this level, 0 assumption is denied. It means that between resulting average and natural average (test amount) there is a meaningful difference and as t amount and the average s difference is positive ,resulted average is bigger than natural average,so it can be said that targeted subsidies has influenced on increase in using more non-conductor construction materials in kahnooj province.

**Electricity consumption differs in kahnooj province according to people s income:**

Data analyzing by Kai Dopierston test shows that test statistic is 36/71 with –p amount (meaningfulness) is 0/047. As test meaningfulness is smaller than Alpha-0/05 so in this level, H0 assumption that means there is no relations is denied and as the result there is a meaningful relation between used electricity with people s income.

**Conclusion:**

Every year a great portion of our country energy sources dissolves because of some reasons like unreasonable technology, energy cheapness and inaccuracy in energy consumption. This matter has decreased energy sources, increased pollution and made high expenses for seeking to acquires, energy production, transmission and its contribution and the result will be impossibility of acquiring defined targets in 20 year country improvement program. Of solutions which Islamic republic of Iran government has performed for decreasing energy consumption and reforming consumption pattern, economical and price procedures that means cash subsidization to people and increasing energy price like electricity as targeted subsidies program. Targeted subsidy program can be called as 10th government s programs and economic policies kingpin. Because according to government economical authorities sayings, most of government 10th economic policy and programs, including budget of 1389 and 5th economy improvement program has joined with this project. On the other hand increasing daily consumption of electrical items in all parts of life, energy consumption is increasing so fast in a way that despite of hard works for decreasing electrical energy consumption in the country, the requests for it increases day by day. As electrical energy plays an important role in countries economical, social and cultural improvement and as its improvement engine, and electricity has different and wide usage especially in industrial session, a country which aims to speed up its economical improvement should be able to produce more electrical energy or at least let it go through a better consumption. There for increasing electrical energy production will influence on economical improvement and growth. The results from this research in main and
subsidiary assumptions 1,3,8 and 9 show that targeted subsidies has influenced on reforming electricity consumption pattern, household electricity consumption decrease, increase in using economic electrical items, increasing low tariff meters use and non-conductor construction materials consumption increase in kahnooj province. And these results correspond with the results from Ashiyan and Jolooli [3] findings showing that with targeted subsidies performance, family electricity consumption had a decrease of 3/5 percent and also with the findings of Hoori Jafari and Farhamandpoor showing that energy subsidization with the previous pattern, causes unreasonable exploitation of economical system advantage in making added value in different units, decreasing energy request and consumption, shortage in financial possibilities in energy proportion sector and unfair sources distribution in the society and targeted subsidies decreases energy consumption in the country.

Also the results from this research, correspond with the ones from Ahmadi and Nasiri’s research [1]. In their study with the name of (Consumption pattern reforming: occasional study in industry and energy sector) they came to conclusion that energy consumption reforming does not mean decreasing energy consumption and saving but better, planned and satisfying exploitation of resource and facilities in different sectors. Consumption pattern reforming is placement of correct using method of the country sources in a way that increases life standards and decreases expenses and improves social justice. Also with people’s persuasion to increase national savings, the country can be moved toward economical improvement. The saving can be other than money and just by reasonable consumption of goods and services they have. Though people, besides saving in energyconsumption, can be effective in national sources conservation in other fields and play roles as the government hand. Iran’s economy needs investment in order to get to its planned targets. Right now, foreign investment has been issued which implies facilities inefficiency internals. Therefore because of shortage in facility and sources, consumption pattern reforming and review, is deniable. By consumption pattern reforming, achieving improvement targets will be speed up, as the society consumption pattern, effects on all social, economic and cultural life dimensions and in fact this is the consumption sector which orders the other economical sectors what and how much to produce.

As we see, energy consumption is increasing so fast in a way that despite of hard works for decreasing electrical energy consumption in the country, the requests for it increases day by day. As electrical energy plays an important role in countries economical, social and cultural improvement and its improvement engine, and electricity has different and wide usage especially in industrial session, a country which aims to speed up its economical improvement, should be able to produce more electrical energy or at least let it go through a better usage. There for increasing electrical energy production will influence on economical improvement and growth [5]. Targeted subsidies is the most important and challenging part in economical improvement program that has been remarked by government experts and policy making assemblies more than the other sections. Also, in this section, increasing energy carriers’ price has been turned to one of the most important and challengeable economical issues in the country. Deleting direct subsidization for the electricity industry is the first challenge forward. In time of direct electricity subsidization, subsidy calculations were a calculating function and inter organization and electricity industry received its subsidy by delivery the amount of produced and distributed electricity. If the subsidy is paid by cash to the users, electricity industry should receive expenses that were paid directly by the government from people now and this needs more attention in electricity consumption calculation. In other word electricity industry should receive its expenses according to used electricity not the produced or distributed electricity. Regarding to the results from this research, concerning all challenges in field of targeted subsidies program and its inflation effects, has effected on decreasing energy consumption specially electricity as after targeted subsidies, people have decreased their electricity consumption, used electricity meters with lower tariff and have applied suitable construction materials instead of using electricity for houses heating and cooling. And other results show that despite of some pretentions; targeted subsidy did not increase infractions like illegal usage of electricity, using shared electricity meters, meters manipulation and ........ But according to results, electricity consumption by people with high income has been more than people with low income and targeted subsidies didn’t have much effect on electricity saving by people with high income.

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