Priority Processing of Effective Packing Elements on Increasing Greenhouse Products Exports in Viewpoint of Russian Reporters (Case Study of Greenhouse Cucumber)

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Abstract

This research analyzed Priority processing of effective packing elements on increasing greenhouse products exports in viewpoint of Russian reporters. Statistics society of the research includes 44 people. Provided questionnaire was distributed among them which 30 questionnaire were returned. This is a questionnaire research in which questionnaire comprises two sections. To process the priority of packing elements from greenhouse products average index was used. To answer the main question of research, “Weather packing elements of goods influences increasing greenhouse products exports to Russia in viewpoint of Russian reports?” We examined five equations which are explained in the form of five hypotheses. In this research we try to determine that in view point of Russia reporter which elements of packing greenhouse cucumber has a meaningful relation to increasing exports and in other words, between which element and increasing exports to Russia there is no special relation. After doing some studies, interviews and distributing questionnaires, results showed that elements of package color, package weight and facility of opening the package influence increasing exports and in other side, two elements of package quality and package compatibility with environment don’t influence increasing exports.
Keywords: Goods, marketing, packing, exports, marketing mix, greenhouse, greenhouse products, greenhouse cucumber.

Introduction

In one hand necessity of non-oil exports and on other hand necessity of considering agricultural section despite all potentials available in this section, make agricultural industry as an important and profitable exports resource for low-income class of farmers. To achieve a world success in agriculture we have to use industrial agriculture instead of traditional agriculture in agricultural method. Regarding that greenhouse cultivation forms a big part of industrial agriculture, so agricultural method in Iran should move to greenhouse agriculture regarding special ecological conditions. Regarding that Iranian agriculture is still so traditional, it is necessary to move to industrial agriculture. The result of this movement is studied in several dimensions. First, the rate of produced products aren’t comparable to each other from quantity point of view, second, greenhouse products will satisfy worldwide customers from apparent and qualitative point of view and third industrial agriculture relies on agricultural machinery more than human forces, in which saving time and money and doing fast and exactly are resulted. Finally high quality and worldwide competitive products will be produced by which exports, importation of foreign exchange to home market and profitability, general employment and welfare for farmers, and people involved in agricultural industry are resulted. Meanwhile portion of greenhouse products because of having higher portion of technology and possibility of producing in four seasons is definitely more. But it is worth to note that in our country we don’t face to considerable problems until producing the products and more problems are appeared after production, although much work is necessary in production field. It should be ever considered that producing more and high quality products never guarantees increasing sale and exports of productions and disregarding some problems related to marketing and market mix and environmental conditions often are appeared as hindrances against product sale and export. The most important cases in marketing mix of agricultural products, specially greenhouse products should be considered seriously, are packing method, transportation and sale and exports programs of greenhouse products (cucumber, tomato and strawberry) in world markets. Other important cases include regarding demand and supply rate of greenhouse products seriously and recognizing needs and tastes of customers in target markets. But an important case which is considered in this research is paying attention to proper packing of greenhouse products to export to several countries regarding cultural, economic and political conditions of reporter countries. South of Kerman is one of the most susceptible areas for agriculture in Iran to cultivate greenhouse products which isn’t regarded and supported by government and related companies. According to high potentials and large under cultivation area and there have been ever big problems for farmers in this area. The aim of this research is to study present problems of greenhouse products packing in order to export to Russia and finally tries to present an operational and functional strategy for it.
Problem Explanation

In one hand development of non-oil exports in Iran is very important. Because sale of oil and crude oil materials and its earned income is ever changed and inconstant and underground resources are strongly definite which doesn’t guarantee economic development of a country, and in other hand in past years agricultural section especially greenhouse products has been involved in high fluctuation which caused an irreparable effect in agricultural economy. But past several years’ trade of Iran shows that relying on oil economy and its earning is followed by inconstant exports income. In order to decrease dependence of Iran to crude oil exports and move exports policies to non-oil goods, using present potentials in agriculture which can be accounted as a competitive advantage for non-oil exports and change foreign exchange to target country and agricultural section is ever regarded. But unfortunately because of many potentials in agricultural industry of Iran such as favorable weather, fertile soil and four-season climate in Iran, we have observed that agricultural industry in Iran because of traditional methods of extensive cultivation and production instead of using industrial methods in one hand and because of weakness of marketing mix such as distribution channels, advertisement, promotions and packing in other hand, we haven’t received what we deserve and just present active workers of agricultural industry confront a long way which needs operational measures to improve it because of high importance of work. In addition because of lacking a proper commercial and marketing system, lacking of production support for active workers in agricultural industry, presence of many brokers and traditional packing method and transportation, we haven’t observed a considerable development of this industry (Roosta).

Regarding that there are many consumer and weak agricultural countries in the vicinity of Iran, as many agricultural products (such as greenhouse products) having high potential because of present improper gathering, packing and distributing systems, insufficient advertisement (in some cases no advertisement), lacking of proper substructures to fast development of agriculture by industrial method and so on. Until now we haven’t achieved a success suitable for home products quality in products exports to foreign countries. In other words because of entering brokers and people unfamiliar in marketing problems to agricultural industry and products (specially greenhouse products), we share a little in exports of agricultural products and it is also decreased more and ever faces to several changes and inconstancy. So, in order to reducing dependence of Iran to crude oil exports and export policies orientation to non-oil goods exports specially agricultural products, using available potentials in agriculture and specially paying attention to greenhouse products by the newest machinery and modern technology in order to increase competitive power in worldwide markets seems inevitable. In this regard we can reach a relative advantage in sale and exports field of agricultural products using available potentials in agriculture and greenhouse production properly. Also it should be noted that the most problems in supply field of agricultural products and specially greenhouse products in world markets and unsatisfying the customers of target markets refer to stages after producing agricultural products and lacking a suitable program in this important stage because greenhouse products in the country and specially in the south of Kerman which are located in a pole of greenhouse production (cucumber) and have high quality face to many
problems of in time gathering, packing, transportation and distributing in target market because of fast putrefying of agricultural products (Arbabi, 2002).

This research tries to emphasize on marketing mix of agricultural products and specially produced greenhouse products in the south of Kerman. Because of complexity of marketing mix and dimensions of work and need to consuming much time and money we don’t pay attention to all dimensions of marketing mix in greenhouse produced products in the south of Kerman (cucumber) and focus on the most important dimension in present time. Because Russian reporters are ever as the most important customers of greenhouse products in the south of Kerman (cucumber) and much of sold products are re-packed in the foreign frontiers of Iran and imported to Russia. In this research it is offered to study especially on proper packing methods of agricultural products and popular for Russian customers and to present practical strategies. Using these practical strategies we can pack greenhouse products and send to market according to Russian customer’s ideas and cultures and avoid resulted costs of greenhouse products re-packing. So, studying present packing, analyzing available problems of packing, studying the best projects performed in this regard and proper packing which there is for these products, we suggest the best packing. All these cases were performed regarding the culture of Russia and determining important dimensions of consumption culture of customers in target Russian markets.

Theoretical Bases Of The Research

One of the most important problems in the field of marketing mix of agricultural products and specially greenhouse products (cucumber) is fast putrefying and its importance in packing sale and exports and proper packing method. In other words studying packing greenhouse products for its special conditions is important: As if there isn’t a suitable packing for agricultural products, in one hand because of fast putrefying of these products and in other hand for covering role of packing and ability of creating a competitive advantage for agricultural products in the field of exports, all effort in this regard will be useless and certainly irreparable losses will be resulted. If produced greenhouse products aren’t sold in the world markets and they are damaged seriously, so customers will be never satisfied and all effort is vanished. But a suitable and culture-based packing of importer country avoids damages so much and satisfies customers in target market, in addition guarantees increasing sale and income and prevents probable re-packing.

Stephen Grove and colleagues (2003) presented a research as “Role of marketing services in exports development”. According to this research two factors of marketing elements are involved in exports which have a direct effect on export services. In many methods, an acceptable development method is resulted from marketing, in other words development of exports starts from marketing. This research tries to present a complete report of real analysis about effective marketing elements in exports. This research aims to recognize the effective elements on exports and determine their involvement. This research has determined that about ten elements are effective in exports which some of the most important include price, product, distribution and communication. So the results of this research show that exports
development is under the development of marketing and marketing mixes and paying attention to kind of exports with marketing elements.

Arvind & colleagues (1989) studied a research as “Developing systems of marketing for exports”. Export system is supported by marketing and as explained experiences and researches in marketing show, developing exports is under the development of marketing and its elements. Marketing system is designed in order to support exports and to do negotiations and progress the purposes of exports. In this study exports system is considered as an active computerized program which becomes inactivated without marketing and its important elements. Several prosperities of exports are resulted based on marketing program. So this research concludes that marketing program for updating like computerized program which needs to change and develop, should be based on exports developing program. However every element which causes to grow and develop exports of a country resulted from marketing.

Dawn & Bartel (1979) studied a research as “Some theories in developing marketing development for exports”. In this research some suggestion for developing marketing system in exports was examined. Compiled program can bring some priorities for all kinds of firms. But many firms have some exports problems related to marketing program. Some suggestions are offered for several firms about developing exports which are regarded as based on marketing program and marketing mixes. But some advantages associated with prior strategic program are very important. So developing international marketing is presented along with developing offices. These ideas should be studied and located in a special field which causes to develop exports. Of course determining problems, recognizing limitations of exports system and planning in interior level is necessary. The results of this research show that studies about developing exports are different based on several conditions. What is important and is regarded in this research is presence of a designed marketing program in order to determine the effective elements on marketing according to kinds of exports system. This research is performed manager’s level of exports programming and marketing.

Jamshidi (2011) studied a research as “analyzing the constancy of greenhouse cultivation system”. This research aims to study the economic, social and environmental constancy condition of greenhouse cultivation system in Alborz. This research is performed in measuring method and 155 people as a sample were selected from 366 active greenhouse units using Kookran formula from different towns of Alborz equally and related data was collected. By used indexes in every dimension and and general combined indexes it was determined that in economic dimension, 48 percent were inconstant, 30 percent average constancy, and just 24 percent constant. In environmental dimension, 62 percent were inconstant, 28 percent average constancy, and just 9 percent constant. In social dimension 60 percent were inconstant, 31 percent average constancy, and just 9 percent completely constant. From the viewpoint of total constancy also 57/4 percent were inconstant, 32/9 percent average constancy and 9/7 percent in constant condition. The results of (F) test showed that there is a statistical meaningful difference in one percent level among several levels of greenhouse substructure. Results of regression analysis showed that nine variables generally can explain 64 percent total changes of research dependent variable. Results of factorial analysis showed that seven
determined factors explain 80 percent of total variance. The results of direction analysis also showed that totally 16 variables affect on constancy directly and indirectly.

Fizbakhsh (2009) studied a research as “studying and determining effective factors on increasing exports of petrochemical products emphasizing on marketing mix”. In this research increasing shares of Iran from world markets and recognition of marketing relating to this products and effective factors of marketing are examined. The results of this research in which hypotheses are marketing mixes show that from important and effective variables on increasing exports some elements such as price, cost-cutting, products quality based on customer needs, in time distribution and delivery, suitable packing and promoting proper advertisement tools have the most priority.

Noroozi (2009) studied the research as “Studying barriers and difficulties of hand-made carpet exports in Khorasan during five years ago (1996-2001) regarding government export policies”. According to desire of author to study hand-made carpet and relative acquaintance with Khorasan, this research was selected to study. In order to promote quality and use of Iranian hand-made carpet the effective factors such as manpower skill, machinery and equipment and tools, raw materials, environmental factors and governmental laws were studied. This research tries to analyze the effects of foreign exchange policies on non-oil materials generally and carpet exports specially and as a result it should be found that foreign exchange policies had positive effects on carpet exports in 1995 to 1999 or caused to some problems for it. This research in which foreign exchange policies are regarded as independent variable and carpet exports as dependent variables, aims to study the role of foreign exchange policies in carpet exports. Selected statistical sample comprised 220 importers and export experts and manufacturers which were sampled by Moorgan method.

Keshavarzi (2006) examined a research as “Fruit designing and packing and field researches about Iranian and Japanese traditional packing”. In this research total structure of project includes to sections. First is recognizing and studying traditional Iranian and Japanese packing and also comparing them to each other based on historical analysis, field researches; and second choosing a subject to perform practical part of project. Designing subject (the reason for studying Japanese packing in the first section was that most of packs considering several centuries age of their designing are ever according to needs of today life along with constant development. In the first section (historical analysis) keywords and signs of common connection between both Japanese and Iranian art cultures are presented in general. Then presenting several styles of Japanese packs and similar Iranian models will try to make a space in which connecting old and new designs can give a modern view to packing. It is clear that in addition to cultural coordination between Iran and Japan, high ability of Japanese packing and high connection of this art from past to present in that country is the second reason of this choice. In the second section according to special importance of fruit packing in Iran, apples which are so many putrefied every year because of improper packing are selected as a subject of packing. Japanese packing and studying connections between this kind of packing and Iranian packing present general strategies which can suggest a method to design packing, subject of this research. To present some principles such as minimalist designing, fruit is used as a gift in visits.
Making the culture of replacing fruit instead of sweet in visits is one of the general strategies in green design and ability of displaying packs.

Saeedi (2005) presented a research as “Supplying agricultural products along with developing non-oil exports of Iran”. This research aims to recognize and analyze effective factors on agricultural products. So, after studying previous performed studies in and out of the country, a proper model was presented to supply agricultural products. Then selected model was estimated using obtained data from 2002 to 2005. For this purpose software was used. Results showed that consumption expenditures, Microsoft of personal section, gross domestic products, real exchange rate of exports are the most effective factors on agricultural products exports in which gross domestic products has shared more than others. As in a long time one percent increasing agricultural products exports becomes 56/1 percent.

Research Methodology

In this research to complete scientific literature and history of research laboratory studies and internet search were used. And in the field researches, information is collected by questionnaire and interviews. In order to analyze resulted data from gathered questionnaire, descriptive and deductive statistical methods were used. So to describe presented answers of questionnaires, tables of frequency distribution and percentage of answers to every question were used: to show some statistical data column curves were used and in deductive level for hypotheses test, binomial test was used. Used software to study and analyze hypotheses of research, are SPSS and excel.

Society And Statistical Sample

Statistical society of this research includes all 44 Russian merchants who are involved to export greenhouse cucumber from south of Kerman. Fulfilled questionnaires among was distributed from statistical society which 30 ones were returned.

Validity: To estimate the validity of questionnaire Kronbache alpha method was used in which resulted validity shows the number of 0/91. Used questionnaire of the research comprised 27 questions in which 9 questions relate to shopping corporate for the first time, 9 questions for re-shopping corporate and finally 9 questions related to a corporate of repeating shopping times.

Reliability: One of the instrument to measure reliability is using Kronbache alpha method by 0/87 extra coefficient method.

Research Hypotheses

This research studies priority processing of effective packing elements on increasing exports of greenhouse products in viewpoint of Russian importers. So hypotheses of research can be explained in the form of statistical hypotheses.
Hypothesis 1

H0: Color of goods packing isn’t effective on greenhouse products export to Russia from view point of Russian importers.
H1: Color of goods packing is effective on greenhouse products export to Russia from view point of Russian importers.

Hypothesis 2

H0: Weight of goods packing isn’t effective on greenhouse products export to Russia from view point of Russian importers.
H1: Weight of goods packing is effective on greenhouse products export to Russia from view point of Russian importers.

Hypothesis 3

H0: Facility of opening packs isn’t effective on greenhouse products export to Russia from view point of Russian importers.
H1: Facility of opening packs is effective on greenhouse products export to Russia from view point of Russian importers.

Hypothesis 4

H0: Quality and durability of goods packing isn’t effective on greenhouse products export to Russia from view point of Russian importers.
H1: Quality and durability of goods packing is effective on greenhouse products export to Russia from view point of Russian importers.

Hypothesis 5

H0: Compatibility of goods packing with environment isn’t effective on greenhouse products export to Russia from view point of Russian importers.
H1: Compatibility of goods packing with environment is effective on greenhouse products export to Russia from view point of Russian importers.

Hypotheses Test And Results Commentary

Hypothesis 1 test

H0: Color of goods packing isn’t effective on greenhouse products export to Russia from view point of Russian importers.
H1: Color of goods packing is effective on greenhouse products export to Russia from view point of Russian importers.
Table 1: Hypothesis 1 test Binomial test of hypothesis 1

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Observed Prop.</th>
<th>Test Prop.</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
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<tbody>
<tr>
<td>Rang</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>&lt;= 4</td>
<td>9</td>
<td>.30</td>
<td>.50</td>
</tr>
<tr>
<td>Group 2</td>
<td>&gt; 4</td>
<td>21</td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For above hypothesis test binomial test was used which regarding obtained results (P=0.043 <0.05), zero assumption was rejected. In other words 70 percent of people, who regarded effective the color of packing on increasing exports, show the effect of packing color on exports of greenhouse products to Russia in viewpoint of Russian importers.

Hypothesis 2 test

H0: Weight of goods packing isn’t effective on greenhouse products export to Russia from viewpoint of Russian importers.

H1: Weight of goods packing is effective on greenhouse products export to Russia from viewpoint of Russian importers.

Table 2: Test of average hypothesis 1

| N          | Valid | Missing | Mean | Std. Deviation |
|------------|-------|---------|------|               |
|            | 30    | 0       | 4.2556 | .62320       |

Diagram 1: Color Package

Table 3: Binomial test of hypothesis 2
Weigh Group 1 <= 4 8 .27 .50 .016a
Group 2 > 4 22 .73
Total 30 1.00

Table4: Test of average hypothesis2

Diagram2: Weight of goods packing

For above hypothesis test binomial test was used which regarding the table (P=0.016<0.05), zero assumption was rejected. In other words 73 percent of people who regarded effective the size of packing on increasing exports, shows the effect of packing weight on exports of greenhouse products to Russia in viewpoint of Russian importer

Hypothesis3 test

H0: Facility of opening packs (consumption) isn’t effective on greenhouse products export to Russia from view point of Russian importers.
H1: Facility of opening packs (consumption) is effective on greenhouse products export to Russia from view point of Russian importers.

Table5: Binomial test of hypothesis3
Table 6: Test of average hypothesis

<table>
<thead>
<tr>
<th></th>
<th>Valid</th>
<th>Missing</th>
<th>Mean</th>
<th>Std. Deviation</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>30</td>
<td>0</td>
<td>4.2667</td>
<td>.89443</td>
</tr>
</tbody>
</table>

Diagram 3: Ease for opening (consume)

For above hypothesis test binomial test was used which regarding the table (P=0.016 <0.05), zero assumption was rejected. In other words 73 percent of people who regarded effective the size of packing on increasing exports, shows the effect of opening facility of pack on exports of greenhouse products to Russia in viewpoint of Russian importer

Hypothesis 4 test

H0: Quality and durability of goods packing isn’t effective on greenhouse products export to Russia from view point of Russian importers.
H1: Quality and durability of goods packing is effective on greenhouse products export to Russia from view point of Russian importers.

Table 7: Binomial test of hypothesis 4

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Observed Prop.</th>
<th>Test Prop.</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Group 1</td>
<td>&lt;= 4</td>
<td>15</td>
<td>.50</td>
<td>.50</td>
</tr>
<tr>
<td>Group 2</td>
<td>&gt; 4</td>
<td>15</td>
<td>.50</td>
<td>1.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>30</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

Diagram 4: Test of average hypothesis 4
For above hypothesis test binomial test was used that regarding the table (P=1.000>0.05), data doesn’t enough reason to reject zero hypothesis, so zero hypothesis isn’t rejected. 50% people who regarded effective the quality and durability of packing on increasing exports is equal to 50% people who didn’t regard effective the quality of packing on increasing exports. This shows that there is no relation between packing quality and increasing export of greenhouse products to Russia in viewpoint of Russian importers.

**Hypothesis5 test**

H0: Compatibility of goods packing with environment isn’t effective on greenhouse products export to Russia from view point of Russian importers.

H1: Compatibility of goods packing with environment is effective on greenhouse products export to Russia from view point of Russian importers.

Table 8: Binomial test of hypothesis5

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Observed Prop</th>
<th>Test Prop</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compatibility with environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1 &lt;= 4</td>
<td>16</td>
<td>.53</td>
<td>.50</td>
<td>.856a</td>
</tr>
<tr>
<td>Group 2 &gt; 4</td>
<td>14</td>
<td>.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N Valid 30
Missing 0
Mean 3.2444
Std. Deviation 1.19043
Table 9: Test of average hypothesis

Diagram 5: Compatibility with environment

For above hypothesis test binomial test was used that regarding the table (P=0.856>0.05), data doesn’t enough reason to reject zero hypothesis, so zero hypothesis isn’t rejected. 47% people who regarded effective the compatibility with the environment of packing on increasing exports is almost equal to 53% people who didn’t regard effective the compatibility with environment of packing on increasing exports. This shows that there is no relation between compatibility with environment of packing and increasing export of greenhouse products to Russia in viewpoint of Russian importers. According to increasingly importance of non-oil exports and especially export of agricultural products and regarding available high potentials in the country and particularly in the south of Kerman and considerable role in economy and special regards to present deficiencies in the field of packing it should be done basic and structural works and making a culture; also all aspects of marketing especially in the field of packing which plays an important role in modern marketing should be considered to export. Along with achievement of this goal, target markets should be studied and a suitable packing for every culture will be presented. This research was studied to present a suitable packing and priority process of important elements in packing for exports of greenhouse products in the south of Kerman to Russia and present priorities and meaningfulness rate of every factor were determined. To priority process of packing elements of greenhouse products average index was used which regarding averages of packing elements include weight of packing (4/3444), facility of opening (consumption) pack (4/2667), color of packing (4/2556), quality and durability (3/5444) and compatibility with environment (3/2444) respectively.

References


