



## Identifying and Prioritizing the Effective Factors on Export Development (Textile Industry)

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### ABSTRACT

Textile industry as one of the mother industries has been studied in this paper and through analytical hierarchy process method the main factors in its export development are identified and classified. Ten main factors on export development, (6 internal and 4 external) are recognized and the indexes for each factor were found respectively. Then, by use of analytical hierarchy process method, we have weighted and ranked the indexes and strategies of each factor. The resulted findings indicate that the internal factors affecting on export are: Responsibility of organization to export, Export marketing, Proficiency and concrete characteristics of company, Abilities and management understanding, Advantages and technical features of products, Efficiency and abstract characteristics of company. The external factors include: Market conditions (first priority), Government role, Laws, Standard

**KEYWORDS:** export, export development, textile industry, analytical hierarchy method.

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### 1. INTRODUCTION

Export development describes tendencies to freedom in international trade. This policy shows that how much a nation concerns about foreign markets and follows its requirements. The policy of export development causes improvement in free foreign trade. The free foreign trade also leads to directing production and resources allocation to the way that according to Classics the state succeeded over outside partially.

The resources allocation in most efficient production chains causes such an increase in internal production and export incomes that it seems except foreign trade it is impossible to provide (Akhavi, 1994). The growing process of global trade has been accelerated through use of active commercial strategies, information and commercial technology revolution and removing commercial barriers in international level. Therefore, being active in global trade needs no explanation. The scientific studies have proved that there is a relationship between economic growth of countries, export and its development. For instance, based on studies in U.S., every \$1 billion increase in export, leads to \$2 billion income, \$400 million tax income and about 50 to 70 thousand new jobs (Maleki, 2006).

Today, the amount of goods export is not one of crucial indexes of development in developed countries. Iran as a developing country cannot play a significant role by relying only on one-production and vulnerable economy of oil in global trade and economy scenes. Thus, due to achieve economic development and making a reasonable and organic relationship with foreign trade and development of non-petroleum export, it should quickly coordinate its economy with global changes.

Exportation as the economic motor engine and the secret how countries survive in global markets has an important role on economic scenes, since improving production abilities and creating new capacities not only facilitates the way of exporting, but also maximizes the role of government as the guarantee of present investments and decreasing exclusivity.

On the other hand, export produces the setting for use of global markets for growing local production and enables production institutions to get rid of local market limitations and with developing export aims to global markets and exploits more economic advantages resulted from higher production.

One of the most significant difficulties of the country is minimizing of relying on oil incomes. Therefore, government has to make policies in order to support services and production sector, especially those parts in which it has absolute or relative interests and try to improve them.

Textile industry as a productive industry, with establishing conditions in industry and with the aim of use of existing potentials has arisen its ability due to share a proportion with purpose markets.

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## 2. Theoretical background:

What has been appeared during last decades is internationalization of trade and attention to global markets (Binshan, 1998). An increasing number of firms have found a good opportunity for expanding their international activities to access purposes such as growth, earning interest and selling, making diversity in commercial risks or compensating the presence of foreigners in local markets (Balabanis 2004). Under these conditions, almost all companies regardless of their size, industry or nationality have realized the fact that choosing to be inactive in international markets will exist no longer. To achieve this and for developing trade, the economies all over the world are going to be less complex for achieving the international markets and making free trade (Johnston, 2008). To enter these international markets companies have applied different approaches that one of them is export development approach. Since export needs least resources to be used contains least risk and organization responsibility. Therefore, this approach is the most well-known and easiest selected approach by companies in an attempt to enter outside markets (Leonidou, 2007).

What seems crucial is this basic point that doing export and selling goods in foreign markets involves special sensitivity which ignoring them may lead to wasting financial and human resources (Rashedi Ashrafi, 2003).

It could be said that a broad set of factors affect export. Factors like motivation, experience, growth, type of company, and export behaviors are effective on export function (Sian Fillis, 2002). In addition, foreign phenomena such as environmental changes can indirectly affect export either (Morgan, 1997). Many of structural, procedural, operational and behavioral factors cause producers remain disable in exporting, development and its maintenance. On the other hand, according to many export studies, limitation in access to information about foreign markets can be considered as one of the most important factors in uncertainty towards export activities (Leonidou, 1995). Thus, for improving export function and development, their significance and degree of importance have to be known. Doubtless, these factors in different industries are different.

## 3. Development of export and economic development:

Export is one of common ways in entering international markets. Export and export behaviors create an introductory area in the field of international marketing and focusing on theoretical basics of marketing broadly. Export approach minimizes the resource responsibility. Hypothetically, it's possible that a company possesses sufficient capacity for production and export and no need to new production machines, if it enters foreign markets with export approach can establish a factory in destinations country whenever the conditions are proper and otherwise, it may exit with less cost (Akhavi et al, 1991).

Exportation happens in two direct and indirect ways. In indirect export, the company through international marketing agents such as businessmen and internal agreements, cooperative institutes and specialized companies sells its product. In direct export, sellers themselves do the whole export affairs and consequently investment risk increases up to a level.

Direct export occurs through making export circles, selling branch, selling to foreign distributors and foreign agents. Export development or economic outward looking strategy or in other words, economic development policy is based on the development of export sector due to export encouragement in the country that acts in direction of export enhancements with an emphasis on development of industries which have a relative advantage over others or they possess production facilities (Katler, Armstrong, 1993). According to Cateora and Graham, global economic development is unique in matters of movement towards efficiency, randheman, and non-governmental markets all around the world in history of modern economy.

They consider the first stage of entering foreign markets in carrying out practical export development (Darling & seristo, 2004). Based on the other countries experiences it can be concluded that export is the best method in development and progress of country. The necessity for choosing this approach is agreement on market rules, restricting government interference in economy and quick merging into global markets that includes the free exit/entrance of foreign invests, taking loans from international banks and some other actions in this way (Akhavi et al 1991).

## 4. Research background:

According to Read (1985) there is a positive relationship between export development programs and companies functions,

Sering foose and Rasoum (1990) concluded that one of most important instruments in developing export is providing information such as getting informed about export markets, studies on foreign markets, holding seminars on export marketing and news bulletins.

Kousgal (1990) found out that the aims of export development programs change according to internationalization of companies and firms are classified based on it.

Young et al (2003) studied 20 export barriers and found 5 factors among them that were significant. Factors such as relative marketing differences, information related to export and market, lack of internal resources, shortage of personal resources and environmental obstacles.

Based on yaprack (2005), in his study confirmed that there is a difference between exporters and non-exporters in barriers for export. The outstanding obstacles face to non-exporters are their worries about lack of information about export , and limited contact with foreign markets and personal and individual problems.

Testform ( 2006) has classified barriers to export into 5 major groups include public policy making, technical and procedural complexity , background differences, strategic limitations and the competition between local companies.

As Alrandrider ( 2006) sited, the most important hinder factors of companies at the beginning of export activities involve the availability of sever contest , lack of knowledge and sufficient information , insufficient understanding of export payment procedures and problems related to finding export markets.

Vikius and Baret ( 2007) identified the most outstanding obstacles for companies export as disability of firms in accessing to comptitative prices against foreign companies and also the high costs of transportation for selling products to foreign markets.

According to Axinn (2008), the most important barriers to export are as follows: Lack of knowledge and information about foreign markets, limited commercial knowledge among personnel, unsuitable price and quality for these markets demands.

Johnston (2008) described export obstacles have a changing and dynamic nature and more companies get involved in exportation, more they consider their problems to lack of suitable foreign commercial activities.

Gumus and Alev Taskin (2008) have classified 34 big companies of informatics and software services export in an study named “study and comparison of applying ordinary and fuzzy methods of AHP, TOPSIS and ELECTERE (case study of software services export companies) by the 3 mentioned methods.

As Seringhause ( 2009) said, the export development programs have indirect effects on export purchase.

## 5. AHP Method

$$W = \begin{matrix} & w_1 & \cdots & w_j & \cdots & w_n \\ \begin{matrix} w_1 \\ \vdots \\ w_i \\ \vdots \\ w_n \end{matrix} & \begin{bmatrix} w_1/w_1 & \cdots & w_1/w_j & \cdots & w_1/w_n \\ \vdots & & \vdots & & \vdots \\ w_i/w_1 & \cdots & w_i/w_j & \cdots & w_i/w_n \\ \vdots & & \vdots & & \vdots \\ w_n/w_1 & \cdots & w_n/w_j & \cdots & w_n/w_n \end{bmatrix} \end{matrix} \begin{bmatrix} w_1 \\ \vdots \\ w_j \\ \vdots \\ w_n \end{bmatrix} = n \begin{bmatrix} w_1 \\ \vdots \\ w_i \\ \vdots \\ w_n \end{bmatrix}$$

$$Ww = nw \Rightarrow (W - nI)w = 0$$

In real situations,  $w_i/w_j$  is unknown, but  $a_{ij} \cong w_i/w_j$  and  $a_{ij} = 1/a_{ji}$  (positive reciprocal), and let

$$A = [a_{ij}]_{n \times n} .$$

a.  $Aw \cong nw \Rightarrow (A - \lambda_{\max} I)w = 0$ , find  $\lambda_{\max}$  and find  $w$  with  $\lambda_{\max}$ , and calculate

$$C.I. = (\lambda_{\max} - n)/(n-1)$$

$$\Rightarrow w = (w_1, w_2, \dots, w_n)$$

b.  $\min \sum_{i=1}^n \sum_{j=1}^n (a_{ij} - \frac{w_i}{w_j})^2$

$$\text{s.t. } \sum_{i=1}^n w_i = 1$$

$$\text{c. } r_i = \left( \prod_{j=1}^n a_{ij} \right)^{1/n} \Rightarrow w_i = r_i / \sum_{i=1}^n r_i \text{ (normalization)} \Rightarrow \mathbf{w} = (w_1, w_2, \dots, w_n)$$

$$\text{d. When } \mathbf{A}\mathbf{w} = \lambda_{\max} \mathbf{w}, \text{ then } \lambda_{\max} \text{ can be estimated by } \lambda_{\max} = \frac{1}{n} \sum_{i=1}^n \frac{(\mathbf{A}\mathbf{w})_i}{w_i}$$

## 6. Conceptual Model:

According to the literature and theoretical model of trade and export, using the previous studies and articles, interviews and asking industrial and academic experts opinions, the analytical model of study based on main model of research, i.e. analytical hierarchical process in 3 levels has been created:

### Level 1:

The purpose of model and research that is to say the prioritizing the effective factors on textile export and the indexes associated to each factor.

### Level 2:

- a. Applying the scientific methods of export marketing
- b. Commercial and trade laws and degree of government support
- c. Providing price and competitive international quality
- d. Environmental conditions (political, cultural, economical stability) of country and amount of tendency to make commercial relationship with destination countries.

### Level 3:

Choices have to be classified.

#### Internal factors include:

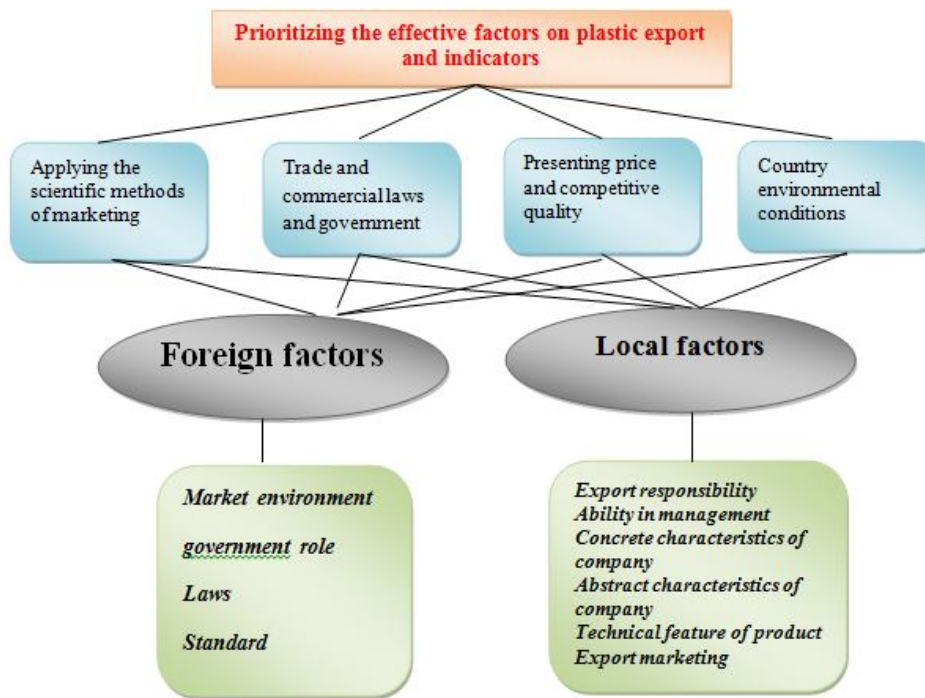
- Export responsibility of organization
- Abilities and understanding of management
- Concrete characteristics of company
- Abstract characteristics of company
- Advantages and technical features of products
- Export marketing

#### External factors:

- Market environment
- Government role
- Laws
- Standard

The conceptual framework has been shown as bellow

Figure 1: conceptual framework



**7. Findings analysis:**

**the ranking of effective factors on export development by use of AHP:**

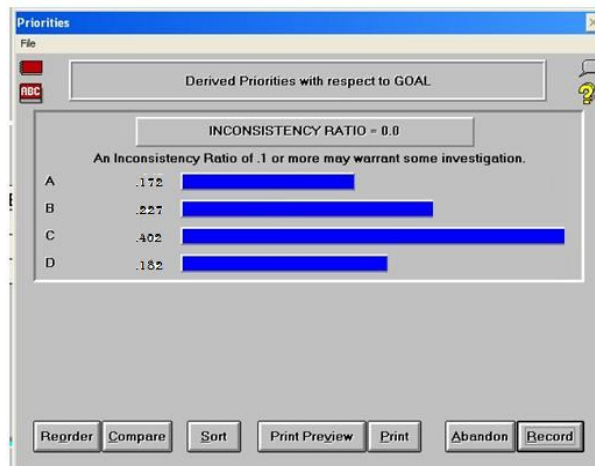
The followings show basic stages of analyzing AHP model according to questionnaire data andwith Expert Choice software. Of course for ranking factors, first the ranking criteria of choices have to be prioritized. Then,based on significance and rankingcoefficient of each criterion, factors will be prioritized.

**1-7 : Ranking of 4 factors for prioritizing factors and indexes with AHP:**

According to evaluation of total sample and software results it was concluded that the rank and weight of 4 factor criteria finally are as follows:

- a. Presenting competitive price and quality with weight0.402
- b. Commercial laws and government support with weight 0.277
- c. Environmental conditions of country and tendency of other countries to import with weight 0.182
- d. Implementing scientific methods in export marketing withweight 0.172

Figure 2: final outcome of Expert Choice software about ranking of criteria



**2-7: prioritizing effective internal factor on export development with AHP method:**

After determining weight of each criterion, in this stage, according to each criterion, first the 6 internal factors and then 4 main external factors will be compared and ranked in pairs.

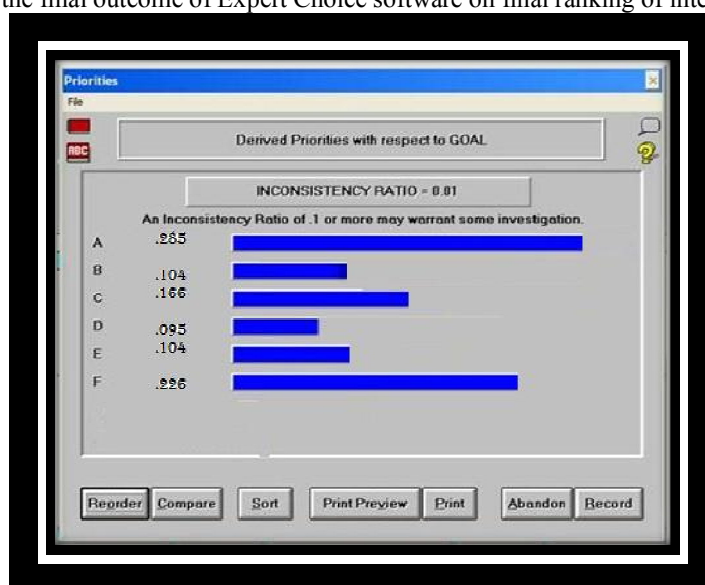
In order to prioritize factors, the 6 internal factors have to be ranked based on every one of 4 factors separately and after that a final matrix will be resulted from.

Now with combination and multiplying the matrix by the final matrix of prioritizing factors the ultimate weight of 6 factors based on the mentioned 4 criterion will be achieved. At last, final score and weight of effective internal factors on export development of textile are as:

Table 1: prioritizing the effective internal factors on export development based on each 4 criteria

Criterion Internafactorl	Scientific methods of marketingexport	Laws and government support	Competitive price and quality	Environmental conditions of country
Responsibility to organization	0/351	0/295	0/285	0/242
Abilities and understanding of management	0/100	0/270	0/040	0/055
Concrete characteristics of company	0/071	0/223	0/190	0/148
Abstract characteristics of company	0/040	0/150	0/100	0/080
Advantages and technical features of products	0/058	0/044	0/133	0/169
Export marketing	0/380	0/018	0/252	0/306

Figure 3: the final outcome of Expert Choice software on final ranking of internal factors



Therefore the priority and coefficient of effective internal factors on development of textile export according to the total sample and from all of criterion will be as follows:

- First priority Responsibility to organization 0.285
- Second priority Export marketing 0.226
- Third priority Concrete characteristics of company 0.166
- Fourth priority Abilities and understanding of management 0.104
- Fifth priority Advantages and technical features of products 0.104
- Sixth priority Abstract characteristics of company 0.095

The rate of incompatibility index (I.R.) that is equal to 0.01 indicates the meaningfulness of total model and confirming the correctness of computation procedure.

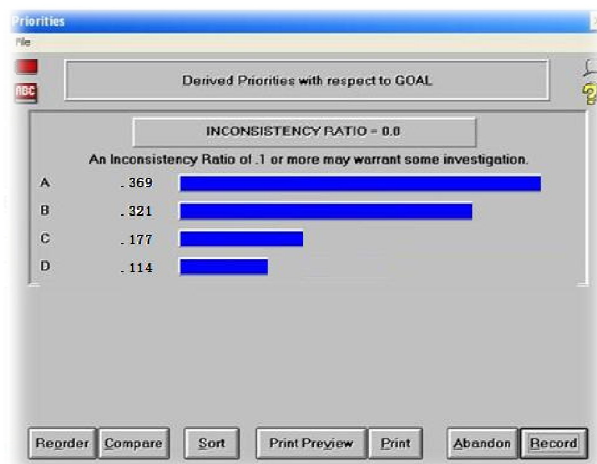
**3-7: prioritizing effective external factors on export development with AHP method:**

After estimating the rank of each effective external factor or export development based on each 4 criterion, the final table of factors weight will be shown as bellow:

Table 2: prioritizing the effective external factors on export development based on each of 4 criteria

Internal factor	Scientific methods of export marketing	Laws and government support	Competitive price and quality	environmental conditions of country
Market environment	0/414	0/293	0/371	0/453
Government role	0/330	0/290	0/414	0/176
laws	0/195	0/255	0/115	0/220
standard	0/061	0/162	0/100	0/151

Figure 4: the final outcome of Expert Choice software on final ranking of external factors



Therefore, the priority and coefficient of effective external factors on textile export development according to the total sample and from all criteria will be as follows:

- First priority market condition 0.369
- Second priority government role 0.321
- Third priority laws 0.177
- Fourth priority standard 0.114

The calculated incompatibility rate index which is equal to 0.00 explains the meaningfulness of total model and confirmation of calculation process.

**8. Conclusion:**

It's recommended that for developing export in textile industry, first the active organization and companies culture in this area tends toward export –oriented culture and production with the aim of export and not providing the internal markets and therefore ,strategies , purposes and organization mission get revised and the strategies based on export development priority recreated. The reengineering of activities with an export view and planning occurs and the personnel training especially in the field of exportemphasized.

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