

Exploring The Effect of Technological Factors and Competitive Capacity on The Performance of The Clothing Exports for Entering Foreign Markets

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ABSTRACT

In twenty first century companies are facing complicated environments and competitive situations and their survival is based on reflecting in due time and consistent with the situation and in the present situation in which the effort for expanding non petroleum export is a necessity, the clothing industry regarding its relative advantages has an especial importance. The present research has explored the relationship between the situational factors of the marketing and the capability for competition in the clothing export. The data has been collected from 72 questionnaires distributed among the Iranian manufacturing firms of export clothing, located in Tehran. The chi-square test has been used for analyzing the data. Results shows that there is a significant relationship between modern machinery and competitive capability. However, there isn't any significant relationship between computer software and competitive capability. In general, there is a positive relationship between the technological factors and competitive capability for clothing exports.

KEY WORDS: technological factors, modern machinery, competitive capability.

1- INTRODUCTION

Doubtlessly, one of the most basic purposes of the officials of every country is to increase the level of welfare and comfort of people and this significant issue can be reached when the society has acceptable level of economical growth and development. On the other hand, it can be stated that economical development has mutual relationship with exporting. That is, success in exporting causes increased economical growth and development and this expands the exporting [1]. According to the published statistics of the United Nations, the value of goods exporting, on average, has grown 8% annually in 1980s and 1990s, mean while, the global revenue has grown less than 6% in this period. This trend, especially from the mid 1980s, has caused the increased openness in the international economy. Among the 225 groups of products in the world trading, some products have grown 3 times more than the growth of global revenue, but the value of some of the other products, mostly primary products have decreased. Generally, the products of manufacturing industries have had the highest growth in the world trading. Many of these products such as electric and electronic products which collectively constitute nearly 40% of the tradable goods are using technology and mostly have the high content of (R&D) [2]. The focus of marketing has changed from the satisfaction of customer's needs and presenting desired products to the external environment and also complete awareness of the customer is not enough any more. To be successful, the marketing managers must get the essential awareness about customer and consider the external environment consisted of competition between governmental rules and regulations and the economic, social, political and technological factors and etc [3]. The relative advantage indicates the ability for producing cheaper goods or at least, having the competitive price compared to other countries [4]. At the end, it must be regarded that manufacturing of products proportional to needs, preferences and tastes of consumers of the foreign countries is the basis for surviving in the global markets. In other words, in today world, the consumers are dominating on the markets and playing a determining role in global demand [5].

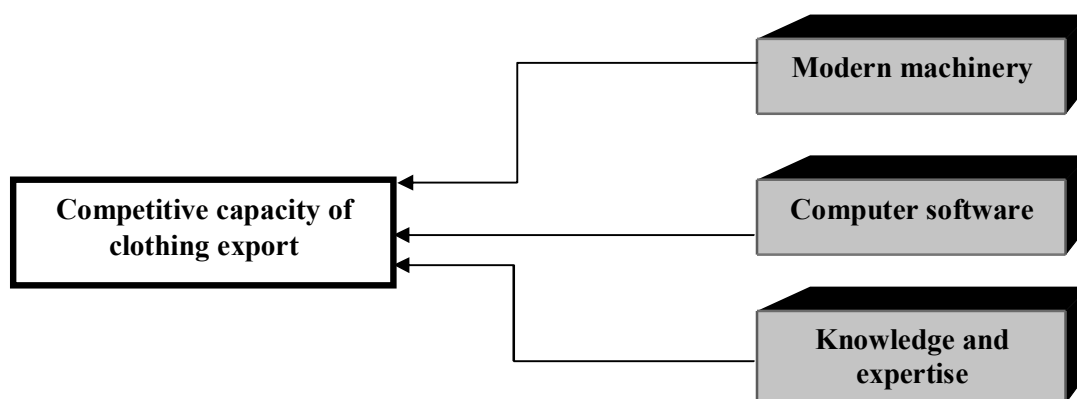
2- Literature review and theoretical background

Many of the conducted researches about export have been focused on the export barriers into three groups. The first group is internal domestic export barriers which points to the operations in the local borders indicating the internal environment of the firm. The second group is external domestic export barriers, these barriers are in the external environment of the firm but are placed in the geographical limits of the local environment. The third group is the external foreign export barriers which are in the external environment of the firm and are related to the international environment of the countries of the target market [6]. The other research

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divides the export barriers into four groups. The first group points to the external problems cover expansive scale that from among them, fluctuation of the foreign currency rate, and high cost of export financing and high supervision by government can be indicated. Second group, includes operational problems which are related to the micro level of the export activities, some cases such as complications and problems in the process of offering documents in goods export and delayed payment by distributors in the export market are in this group. The third groups are problems hidden in the firm and they are regularly controlled by it. Cases related to the marketing of organizing the export sector are in this group. The fourth group of barriers is shortage of relevant, suitable and timely information. Inaccessibility to such information increases lack of awareness about the subject and high extent of uncertainty [7]. One of the most important patterns is the Bound's pattern which has been considered in the developing countries and it has a view beyond a country or region [8]. The Bound's pattern, especially in the supply part, is more comprehensive than Goldstein –Khan Pattern and considering the shock of supply in the region and the variable of trend in this model has given it a special importance. In this model also existing the ratio of export goods price to internal price, especially in the case of a special good or a group of a special good, has more theoretical importance and is more acceptable than Goldstein-khan model, because the internal buying power for export goods has been considered in this model and thus by entering the foreign currency rate in the model and considering the indirect effect of it on export supply, it considers the replacement of the internal demand with export and shows the strength points of this model compared to the Goldstein – Khan model. The other conducted research about export is in the research of Haniotis (1990). This research uses the Armington model to explore the effect of the expansion of Europe Society on the export of grains and soybeans of the United States and uses estimation of the concurrent system to estimate and analyze the elasticity of export supply in four regions other than the United States. There are various international researches about exploring and recognizing effective variables of foreign trading such as Hataker and Magi; Schuh (1974) Stern et al; Haniotis (1990) and Koy (1994). In the period of 1980s, the scholars of the strategic management found that technology is one of the important elements in defining trade and business and also competitive strategy. Technology is a key factor for stable and sustained economy and it is expected in 21st century that the competition be on technology basis [9].

Figure1) conceptual model of the research



3- The Hypotheses of the research

Table 1) the hypotheses of the research

Hypotheses	Explanation of the Hypotheses
Hypothesis (1)	There is a significant relationship between modern machinery and competitive capability of clothing export.
Hypothesis (2)	There is a significant relationship between computer software and competitive capability of clothing export.
Hypothesis (3)	There is a significant relationship between knowledge and expertise and competitive capability of clothing export.

4- METHODOLOGY

In this research our purpose is to find the relationship between technological factors and competitive capability of clothing export. The present research according to its propose is an empirical one. The method used in this research for gathering information is descriptive and correlation test is used [10]. This method, in general sometimes is stated descriptive, because in this method the statistics of data are described and analyzed [11].

5) Data collection

In this research the field study was used for collecting needed information. Also the library methods such as books, articles, magazines, research projects and internet databases were used. For collecting data, questionnaires were used in this research.

6) Sample

The population of this research is consisted of the exporters of the clothing products in Tehran province. G= precision of the estimation

$$N=360 \quad p=0/5 \quad z_{\alpha/2} = \pm 1/96 \quad G=0/08$$

$$x \geq \frac{N z_{\alpha/2} \cdot P (1-P)}{G^2(N-1) + z_{\alpha/2} \cdot P(1-P)}$$

$$x \geq \frac{360.(1/96) \cdot 0/5.(0/5)}{359(0/08)^2 + 1/96.0/5(0/5)} \geq 63$$

Since the population is divided into four groups and because there is 36 firms that export clothing products, so we used nonproportional stratified sampling [12].

Table 2) Classification of the activities

Kind of Activity	number	Number of people in the sample
Men's clothing	15	30
Women's clothing	8	16
Child clothing	5	10
Knitted clothing	8	16

7- Questionnaire

The questionnaire used in this research is composed of two parts. In the first part, personal questions about age, gender, education and job are asked. In this research 13% were 26-30 years old, 15% 31-35, 26% 36-40 and 29% 41-45, 10% 46-50 and 7% 51 years old or above, but the second part itself is composed of questions about independent and dependent variables. It is worth to mention that five-point Likert scale was used. The questionnaire had 23 questions, which 8 questions were about machinery, 5 questions were about computer software, 8 questions were about knowledge and expertise of human recourses and 1 question was related to the variable of competitive capability and the last one was an open ended question.

8- Validity and Reliability

The concept of validity answers to this question that the measuring tool to what extent measures the considered trait [10]. To assure that the questions of the questionnaire would collect the needed data for testing the research hypotheses the views of some experts of research methodology and statistics have been used. Before final distribution a primary study was conducted by distributing the questionnaires between 10 manufactures of export clothing in order to determine the stability of the questionnaire, then Cronbach's alpha coefficient was calculated using (S.P.S.S) software and the examination result of this study showed that Cronbach's alpha value in each variable was higher than 80%, so it can be stated that the questionnaire has high reliability.

Table 3) Reliability of the questionnaire

Reliability Statistics		Case Processing Summary	
Cronbach's Alpha	N of Items	N	%
.806	23		
		Cases	
		Valid	10 100.0
		Excluded ^a	0 .0
		Total	10 100.0

9) ANALYSIS AND RESULT

For inferential analysis (S.P.S.S) software was used. The parametrical methods are used for analyzing the data. The chi-square test is used to explore the significance or independence of both variables so that at least one of them will be qualitative.

Table 4) chi-square test

variables	Test Statistics		
	modern machinery	knowledge and expertise	computer software
Chi-Square	9.791	31.218	1.812

The calculation of chi-square is as follows:

$$D_f = (2-1) \cdot (2-1) = 1$$

chi-square from table with 1 degree of freedom and significance level of 0/05 equals to 3/847.

In the **first hypothesis**, the amount of calculated chi-square equals to 9/797 while the obtained chi-square from the table is 3/847. It can be concluded that at 5% significance level, there is a significant relationship between modern machinery and competitive capability of clothing export in the clothing exporter firms located in Tehran. Therefore H1 is supported.

In the **second hypothesis**, the amount of calculated chi-square equals to 1/812 while the obtained chi-square from the table is 3/841. It can be concluded that at 5% significance level, there is a significant relationship between computer software and competitive capacity of clothing export in the clothing exporter firms located in Tehran. Therefore H2 is not supported.

In the **third hypothesis**, the amount of calculated chi-square equals to 31/218 while the obtained chi-square from the table equals to 3/841. Thus it can be concluded that at 5% significance level, there is a significant relationship between knowledge and expertise and competitive capacity of clothing export in the clothing exporter firms located in Tehran. Therefore H3 is supported.

Table 5) hypothesis test

H0	H1	variables
	☑	modern machinery
☑		computer software
	☑	knowledge and expertise

Table 6)Variables correlation

Variables	Pearson Correlation	V1	V2	V3	V4	V5
competitive capacity on the performance of the Exports	Pearson Correlation Sig. (2-tailed)	1				
modern machinery	Pearson Correlation Sig. (2-tailed)	.36	1			
knowledge and expertise	Pearson Correlation Sig. (2-tailed)	.64	.376*	1		
computer software	Pearson Correlation Sig. (2-tailed)	.15	.401*	.250*	1	

Based on table(6), for independent variable of machinery, the rate of Pearson coefficient is 36% and it shows that 36% changes in competitive capability of clothing exports arise from the kind of manufacture machinery.

For independent variable, knowledge and expertise, the rate of Pearson coefficient is 64% and it shows that 64% changes in competitive capability of clothing exports arise from knowledge and expertise.

For independent variable, computer software, the rate of Pearson coefficient is 15% and it shows that 15% changes in competitive capability of clothing exports arise from computer software.

Conclusion and Suggestions

In clothing exporter firms there must be defined marketing guidelines. Exporters must pay attention to not only marketing mix but also to technological and situational factors of marketing in order to recognize the strength and weak points and try to change threats into opportunities. Clothing exporters must be very careful for choosing the market, because correct choice will cause their success and before entering every market it is better they examine its various aspects so that they enter a markets in which they have competition capability. At the end of this research some recommendations are given:

1. All of the firms going to export, at the first step, must have gained experience in the domestic markets.
2. Exporters must know their purpose for exporting and when their purpose is gaining more profit and market development it will not be possible unless with satisfying customer needs and it is better they do extensive planning in this field.
3. It is better exporter firms employ professional experts and marketers and use their consultative services.
4. Exporter firms must pay attention to training issues and also essential trainings about export legal issues such as inability to accomplish the commitments and, in general, the claimed issues between buyer and seller and essential trainings related to marketing and advertising and packaging and preparing goods for exporting and every training needed for exporting industrial goods must be considered.
5. Increasing the quality of export clothing according to international standards
6. Using high quality and standard primary materials for producing clothing products
7. Organizing the role of government institutes and organizations and decreasing the decision making centers and the methods of supervision and control in exporting.

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