

Identifying and prioritizing export barriers to small and medium enterprises (SMEs) regarding food Industry based on national competition diamond Cole Porter model

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ABSTRACT

Diamond model Cole Porter and approaches after that have been used in several investigations in most countries and the credit behind the model has been repeatedly confirmed. But any theory is contended with regard to the conditions and time scope of their own; and gets corrected with the emergence of new features and based on the environment of reform. Current study has tried to identify and prioritize export barriers to small and medium enterprises (SMEs) regarding food industry based on national competition diamond Cole Porter model in Iran (East Azerbaijan) province and its subject pool were 266 people who were given the questionnaires. The method used to analyze and get information from research was exploratory confirmation factor, particularly from the equations structural theories for examination. With regard to the results achieved all hypotheses were confirmed.

Keyword: export, Porter model, market.

Introduction

Success and competition in the contemporary world and in every nation depends on understanding and recognition of the existing facilities and optimal use of them. In order to achieve higher rate of growth and development in all aspects especially in our country it seems vital and important where it has long relied on oil revenues.

Any society that wants to stand on its own feet and be independence in the world today needs to protect sources of income and should introduce new resources in order to gain growth and development. Moreover, it should plan, invest and take effective measures and use the income which is created from personal and individual minds of the people in the society. Firstly, this important issue should be recognized through research on resources, the facilities and the obstacles. Secondly, a plan for access to higher productivity and more rapid action to bring in these programs is needed (Binshan,1998, p 43). One of the most important and susceptible non-oil exports, especially during recent ten years, has been food industry. But despite many talents in producing food industry in the country, the rate of production and export of this product in comparison with the countries that do not own such things is very low. This indicates competitiveness in small and medium food industries industries in international markets. In these conditions, almost all companies disregard to their size and their activities or nationality, are facing this reality. They have found out that the choice of not being active in the global markets will not exist anymore. In this regard and for the development of trade, economies throughout the world are eliminating complexity to gain access to the international markets and build trade (Binshan, 1998, 43). To enter to the global market companies have employed different approaches one of which is Export Development approach.

As far as exports are known to employ the least sources, and have got the lowest risk and also hold the least commitment in the organization, therefore, this approach, is the most famous and easiest approach adopted by companies which are trying to enter and influence the foreign markets (Leonidou, 2007, p. 736).

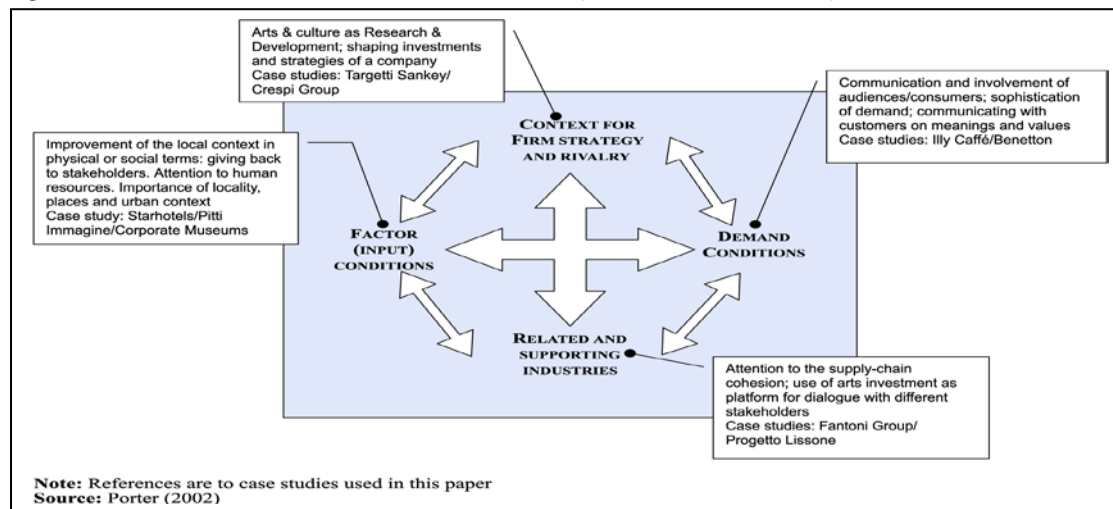
But a vast collection of the export development factors are effective. Factors like incitement, experience, growth, the kind of Export behavior of the Companies effect on the export performance (Fillis's claim, 2002, p. 224). In addition, some foreign phenomenon such as environmental changes can also indirectly effect on the exports (charpie, 1997, p.70). There a many factors like structural, procedural, operational, and treatment . . . which causes the exporting companies to remain weak regarding development and maintenances of the export enterprise. If these factors and obstacles are identified it can help the organizations and governments with appropriate measures to facilitate exports. Studies have been carried out in different countries in the world, including Iran, to identify export barriers. But no has been done to investigate the specific obstacles for the export of small and medium in a particular area of a specific industry. This is especially seen in the food industry in Iran where the proper growth has been observed during recent years particularly regarding the number of small and medium active companies. Therefore the goal of the research is to identify the most important obstacles for export of the small and medium company's active in food industry in East Azerbaijan province and to rank the obstacles in order to help to create a proper understanding of the most important obstacles on the way for investors decision-makers in the companies. Furthermore in this article, after a review of the literature, the questions and assumptions will be presented and and the methodology will be described. Finally, the most important findings of the study will be briefly reported in the conclusion.

Literature review

Business environment in the economy consists of four corresponding areas which are known as diamond. Diamond model is presented as a framework for the analysis of the strengths and weaknesses of business environment and also to determine the classification of the priorities of the policy.

Conditions of production and quality of the ability to access the manufacturing refers to government services and public infrastructures. Competition and strategy Institute point out the laws and the encouragements that the nature of competitions in the country hinges upon. Related industries and nurturing ones, distributors, are providing the services and computer programmer who deals with the conditions for the professional activities. Conditions demand pressures and the needs of customers for domestic product design, display productivity and innovation in agencies. The Government standards and laws that support customers can affect demand conditions.(Porter, 1990)

Figure 1. In the microeconomic the business environment (Porter and Schwab, 2008)



Strengths and weaknesses in each section of the diamond, the system of reciprocally and are not independent from each other. As an example, if domestic competition and local customers demanded for new products and unique services, the access to the educated human forces would provide more competitive advantage.

Since very long ago, conditions of production have been known as important element affecting the productivity of the companies. The physical infrastructure regardless of lots of dispute about them, are supposed as an important role in productivity (Krueger Lindahl in 2001). As a consequence of the globalization, fluidity of trade and demand for communication infrastructures and transportation in all countries has had an increase at any level.

Effective access to funding for companies to establish a long-term investment which will ultimately will increase the level of productivity is important. Lots of researches have been analyzed the field of development of financial markets of the economic prosperity (Ang, 2008). Some have paid to the role of the investment markets and some the access to credit. Although there is no evidence as to which one of the financial systems based on the capital or banks are preferable, developed financial markets are distinguished more favorable.

Both quality and higher education has a positive effect on the level of economic prosperity (Krueger and Lindahl, 2001). But a simple relationship between the cost for education and productivity does not exist: in recent decades in some countries it has been observed in spite of the contribution of higher education to the economy, the rate of productivity remained low (Easterly, 2001).

Infrastructure of science and technology is crucial for productivity growth. In advanced economies progression of knowledge is stimulus for a source of new ideas. Countries in the more absorption capacity need to prepare to produce knowledge to improve (Griffith et al., 2004). But innovative capacity only is important for the research and development; economy competition in many aspects of the quality of environment and advanced business of the company's operations payed for research and development to produce inventions and other output of innovation has been high enough (Furman, Porter and Stern, 2002).

The effect of redundant regulations and the costs affiliated with the method of execution has caught attention of many researchers very recently especially in the field of competitiveness. Time spent in the public generally decreases the productivity of the company through reducing output and investment restrictions on entry of the new companies –which in turn is considered one of the important drives of productivity growth.

Legal constraints and encouragements dominant on the company strategy and competition influences greatly the way the companies face conditions of production. The high levels of competition which are created in local markets are really important especially for high performance (Porter and Sakakibara, 2004). Competition, entry of the new and exit of active companies put the performance at different levels in all the existing companies under the influence. Because of Pivotal competition effect of the government-through competition laws, quota and tax incentives, and the conditions governing the state ownership or companies affiliated to the government-for productivity is vital. Ownership structure of the companies (private, state, or Farraginous) is another factor that kind of important interactive competitive on (Megginson and Netter, 2001).

One of the main aspects of the realm of strategy and competition is the openness of the country for trade and foreign investment. In such a way that countries would be able to use the advantage of their relative, in the direction of progress in productivity of the whole economy.

Access to the thoughts and more advanced technology from abroad puts native companies under competitive pressures. Experimental literature in connection with openness influence on the long-term growth and productivity has been varying. Some of the research results imply relationship between openness and economic prosperitygrowth (Baldwin, R. 2003) or have been reviewed the role of trade with advanced economies (Coe and Helpman, 1995). Some other claimed that there is possibly, mutual positive effects between openness and other factors like strong institutions (Dollar and Kraay, 2002). While some other claimed that trade has a positive independent effect (Alcala, Ciccone. 2004).

Demand conditions have received less attention in the economic literature. Environmental regulations and supporting the consumers especially naturally from the viewpoint of the company; if environment-friendly products creates higher prices or leads to lower production costs lower, companies will feel committed to

produce them without the need to legislate. Commercial literature contends that it is so simplistic to predict, with much uncertainty, the future technology, consumer needs, and regulations, the exact investment and future changes that other markets can lead to profitable technology. And strange as it may seem, that this new technology of direct productivity of benefits would be provided which the companies otherwise ignored (Porter and Linde, 1995). Management in literature also offers a focus on the importance of demand that views customers innovation partners in the process.

Research assumptions

With a comprehensive review of literature, Cole Porter model and reformed Cole Porter models and opinion poll from experts in this regard five most important barriers have been identified: laws and regulations to prevent exports, banking system, gaining sanitary certificates, lack of education in the field of exports, the culture of the society to export category, the lack of marketing programs to export category and based on this theory the assumptions of the study were designed in the following way.

1. Export laws and regulations, the banking system of export are barriers in small and medium (SMEs) food industry companies in East Azerbaijan.
2. Gaining sanitary certificates obstacles the small and medium (SMEs) food industry companies in East Azerbaijan.
3. Lack of training in the field of export makes a barrier in small and medium (SMEs) food industry companies in East Azerbaijan.
4. The culture of the society compared to the category of export factors prevents exports in small and medium (SMEs) food industry companies in East Azerbaijan.
5. Lack of marketing programs compared to the category of exports is a barrier in small and medium (SMEs) food industry compies in Eastan Azerbaijan.

Subject pool and the setting

In this research, the participants included senior managers, financial and exporting managers and the senior experts of food industry in East Azerbaijan province. These groups of people were selected using randomization techniques. According to the companies' abstract class were elected. 302 persons were appointed as the statistical *sample* and in accordance with Cochran formula. In order to increase the validity of the questionnaires of the research, it was distributed among of 340 people. From among which 271 questionnaires were returned, and the 266 questionnaires were used at the analysis procedure of the study.

Methodology

Since the purpose of the study is to determine the causal relationship among the following variables: export laws and regulations, banking system, gaining sanitary certificates, lack of professional training, the culture of the society to export category, the lack of marketing programs in relation to exports and development of exports; the research applicable from the point of view of purpose and descriptive from the viewpoint of collecting information. It is correlational based on structural models. To study the relations between variables in recent decades, many methods have been submitted. One of these methods is structural equation model analysis or regression model with Maknon variables (Hox & Bechger, 1998).

Structural equations model is a comprehensive approach to test the hypotheses which are about relationships between the observed variables and Maknon variables. Through this approach the acceptability of the theoretical models in particular communities can be tested, and inas much as most of the existing managerial researches are in hidden and covered mood i.e Maknon, the need for using this model is increasing day by day. However, in the analytic model of the research, export laws and regulations, banking system, gaining sanitary certificates, lack of education in the field of exports, the culture of the society to export category and the lack of marketing programs to export are considered as the independent variables.

Through this approach the acceptability of the teoretical models can be verified in particular communities and since most of the existing management researches are hidden or covered (called Maknon), the need for using the model is increasing day by day in research. From among export laws and regulations, banking system, continued to health care, lack of education in the field of exports, the culture of the society to export category, the lack of marketing programs to export seems much more outstanding.

The main instruments of information collected, which is 40 questionnaire question in terms of obstacles for export development from different aspects which were analyzed for communities less than 0.5 and eighteen questions were removed because of the joint element with a amount higher than 0. 4 and the rest 22 questions, on this basis for the variables to study the 5 questions to export laws and regulations banking system, 4 questions for gaining sanitary certificates, 4 questions lack of professional training, 5 questions lack of marketing programs to export and 4 questions for the culture of the society to export category, with five scale Likert style questionnaire was taken into account.

In order to examine the reliability, 45 questions were pilot studied and then using the obtained data to the questionnaire, the amount of the correlation coefficient of was 72 percent (Cronbach's alpha). It was calculated to each question individually: laws and regulations banking system (69 percent), gaining sanitary certificate (71 percent), the lack of professional training (70 percent), the lack of marketing programs to export (72 percent), the culture of the society to export (69 percent). The figures show that the questionnaire favors high reliability and in order to establish validity factor analysis formula was used (Hoyle, 1995).

Factor analysis is a statistical technique which has lots of usage in human sciences. In fact the use of factor analysis in some branches in which the questionnaire and test are used and where the variables are of Maknon type, is indispensable (Churchil Jr., G.A. 1979).

Since all the items in questionnaire used for measuring workforce, are based on previous studies and the questionnaire in hand has been examined and verified by a number of university professors, managers and based on their feedback and to reduce ambiguities, initial one was edited and a final version questionnaire has been compiled, to assure the fluidity of its contents. Validity of the workforce was done through the factor analysis based on the Lisrel software. The results which are shown in table 1.

Research findings

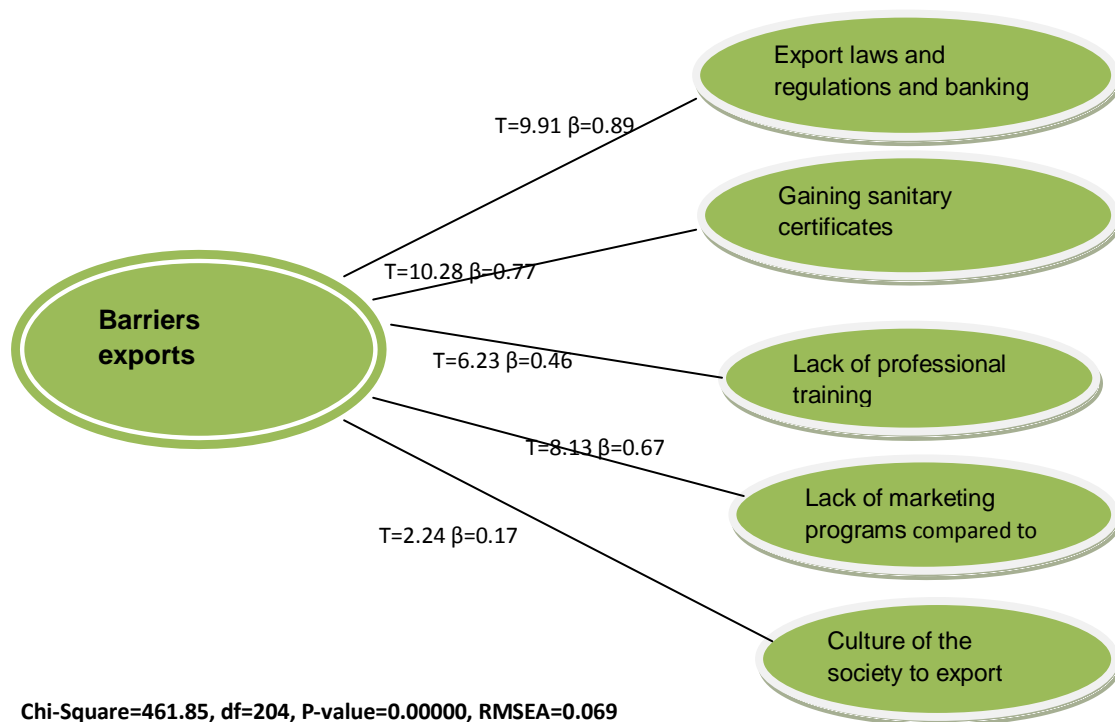
The study employed a two-phase procedure to test the model. At first the model was measured by the use of a exploratory factor analysis test and then structural model was examined. In order to determine validity and and appropriateness of the pattern the Confirmatory factor analysis and to determine the final fitting model structural equation model (SEM) was used. Lisrel software was used for processing the information.

Table 1 Exploratory factor analysis

EFA Loadings (after varimax rotation)a					
factor	Export laws and regulations	banking system of export and gaining sanitary certificates	lack of professional training	Lack of marketing programs compared to the category	culture of the society to export category
A1	.100	.353	.263	.594	.048
A2	.124	.315	.267	.653	.092
A3	.190	.096	.342	.744	.121
A4	.148	.105	.080	.753	.013
A5	.226	.047	.188	.807	.024
B1	.168	.088	.709	.325	.042
B2	.207	.128	.795	.300	.064
B3	.067	.037	.762	.112	.099
B4	.156	.095	.832	.181	.137
C1	.129	.762	.107	.246	.033
C2	.057	.868	.083	.091	-.019
C3	.058	.727	-.002	.045	.063
C4	.072	.837	.129	.180	-.037
D1	.583	.181	.376	.138	.011
D2	.740	.166	.242	.161	.085
D3	.845	.065	.099	.110	-.007
D4	.742	-.006	.022	.262	.001
F1	.027	.014	-.014	-.023	.765
F2	-.027	.059	.137	-.042	.819
F3	-.077	.003	.062	.108	.778
F4	.077	.026	-.007	.094	.832
F5	.092	-.034	.166	.078	.784

NOTE: CFA = confirmatory factor analysis; EFA = exploratory factor analysis; CFI = Comparative Fit Index; NFI = Normed Fit Index; RFI = Relative Fit Index; TLI = Tucker-Lewis Index; RMSEA = root mean square error of approximation.

Table 1 presents the model resultant from the **Exploratory factor** analysis. This form depicts the 5 effective barriers to the development of exports i.e. the export laws and regulations, banking system, gaining sanitary certificates, lack of professional training, the culture of the society to export category, the lack of marketing programs to export. This is done in a way that for provinces where the situation of the above factors is suitable for them, they can be more successful compared to the provinces in which factors have a better condition. Therefore, these five factors could complement successful Development of Exports of food.



As a confirmation to the model presented, it can be pointed out that the amount of RMSEA is 0.069 which is less than 0.08 and also the two indexes, GFI and AGI respectively achieved 0.86 and 0.83 which in turn proves the fittingness of the model. The ratio of the amount K2 and the degree of freedom is 2.26 which is less than 3, therefore it can be concluded that the model has had enough fitting and is appropriate. As the diagram shows, from among the factors that have been identified, factors of laws and regulations, banking system and gaining sanitary certificate are the most important of those and have the highest regression ratios among obstacles on the development of exports. As the other factor, the lack of marketing programs compared to the category of exports and then the education of the professional expertise and the culture of the Society for the issue of exports can be introduced.

Prioritizing obstacles based on the average points

Freedman's test was used to study equality specifics every one of the obstacles related with the development of exports to identify strengths and weaknesses of food industry in East Azerbaijan province. The SPSS output comprised of two tables.

In the table first, the average ranks of each variable has been presented and also the second specifications and statistics has been presented. SPSS output, the amount of meaningful number (sig) is less than 0.05 and is zero (Analysis of research findings with regards to Freedman Analysis of Variance). So we assume that null hypothesis is rejected at 95 percent confidence interval. So, it can be said obstacles connected with the development of exports of food in Eastern Azerbaijan province do not have the same ranks. And the scores achieved show obstacles can be ordered in the following way: export laws and regulations and banking system, gaining sanitary certificate, lack of marketing programs, the lack of professional training, the culture of the Society for exports.

Conclusions

In 21st century, challenges and pressures can be spotted in the field of competition and increase the production capacity, the price, the speed, services, etc. With regard to the above-mentioned the need for different countries

and industries to compete with foreign and domestic industries in the development of its export barriers should be identified and overcome so that it will be able to improve suitable export performance and organization and have proper functional indicators.

With regard to the investigation results it can be concluded that to improve the index level for export and functional role of the companies in East Azerbaijan, some reforms are needed in terms of laws and regulations and the banking system. Although this is one of the environmental factors of the companies the companies can propose their solutions to the respective organizations to prevent or correct the predictable problems. Also this compared with the process of exporting in other countries and Iran was confirmed to stand at the same level as Turkey. Other factors are prioritized as the following: gaining sanitary certificate, lack of marketing programs, the lack of professional training, the culture of the society to export category. Also some other results can be achieved from the investigations above. Firstly, the existing problems between different industries and export companies are different based on the company itself and the exporting stage in which the export is in process (Crick and Chaundhry, 1997, p.15). In addition to the nature and the severity of export obstacles, not only in different stages of export but different companies in the same stage of the export sometimes experience different problems, or with different severity (Leonidou, 1995, p 13).

Secondly, it seems that perception and conception of managers about the export obstacles seems to be under the influence of industry type, size, the company, experience and export destination and export goal (Da Silva and DaRocha, 2001, p.605). Thirdly, that environmental factors existing in each country influence the perception of the main export barriers.

And finally, obstacles on the part of exporting and non-exporting companies can be different. The non-exporting companies put more emphasis on obstacles related to the beginning stage of the export enterprise, but the exporting Companies focus more on operational problems, a procedure and a market (Leonidou, 1995, p. 17)

The present study has its own limitations and some weaknesses. For example, the proposed scale in the early stages and should have been designed in future studies in the organization for several measurements to test the weaknesses. Also the present study introduces a scale for all the organizations and variables such as size or type of industry have not been taken into account.

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