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Evaluation the impact of 5Cs model factors on export development in oil and gas equipment/services companies to international markets

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Abstract

Today, an increasing number of businesses and industries are or are going to enter the import and export of goods and equipment with other countries. The process of globalization has reached such an extent that companies not involved yet in international trade, can clearly observe indirect effects of competitors and customers who are doing business on an international scale. In the present paper efforts have been made to evaluate impact of 5Cs model factors in development in oil and gas equipment and services companies to international markets. A questionnaire was used to collect data from all three methods. The population consisted of all the managers of companies and sub-sector industries involve in oil and gas. To simplify implementation of the research as well as to obtain a better conclusion, in this study domestic oil and gas industries were considered. According to the formula used to estimate the sample size and taking 0.05 errors for the required assessment, sample size was 277. Sampling was used in the survey. The results of the regression analysis showed that: human resources, organizational culture, legislative, economy, technology, market size, customer priorities and the competitive forces do not affect development of export but organization, strategy and political factors have influence on the development of export.

Keywords: export development, organizational culture, strategy of organization, merit

Introduction:

The High correlation growth through ongoing international transactions and global economies has caused small and large businesses looking for new markets for their products in developed countries are heavily (Fairlie 1, 2013: 364) oil and gas .oil and gas are amongst the most basic and most fundamental industries in the world, especially in the countries owned the reserves. Competition between countries possessing these resources as the original owners, for localizing the extraction and refine technology has been intensified. In addition, the traditional rivalry between the well-known powers of this industry increased more than in the past. These lead to a circumstance that the slightest delay and disorganization will cause to an irreparable damage to the country's future.

Although the presence and entry into the international arena for many organizations seem to be something simple and natural, but for many other companies is the biggest challenge. The challenge that we can name as entering to the market, including three fateful decisions: Where should we enter, when do we enter, and how and with what strategies to enter different markets? As organizations make a fateful decision for entering to the international arena, they will face many environmental forces that marketers and business managers will have no choice but to meet and to match. For example, the uncontrollable external environment includes: the legal / political, economic, competitive, social and cultural forces, technology as well as geophysical and physical conditions. It is possible that business managers and marketers are faced with controllable marketing factors such as the integrated marketing, and consider that national uncontrollable factors are a lot easier than the international uncontrollable factors. At the entrance to the world market the uncertainties should be reduced to an acceptable level. On these bases, carefully evaluated concepts have developed in the literature predictors of the future based on international business structure and an organization capacity as well as capability in connection to the others (Holm 1, 2013).

To log out of unwanted passivity, the downstream oil and gas companies, that have made significant moves in recent years to enter to a larger competitive global market and create credit for country's oil and gas industry, need to be informed and know the market entry strategy, objective and action plan for the strategy as well as develop prestigious brands. This requires knowledge of moving in new direction. An informed and appropriate entry will lead to glory for the country and the industry.

Iran, deserves competition and qualification to have several brand companies in the oil and gas industry and already should have the world's leading brands in all industries, especially in this industry. In addition, we must remember that brand strategy as well as brand strategy management should be able to begin and continue a continuous dialogue with customers to promote bilateral relations. (Srivastava 1, 2009: 26).

The main problem arises at this point is for entering to this field and to succeed we need to recognize and track the movement that would be the infrastructure. In this paper we tried to present a solution to create this basic knowledge for a better entering to global arena.

In this study despite all limitations it is assumed that by means of predetermined identified objectives and given the success on the domestic markets, to enter in competitive foreign markets with a clear vision.
The main objective is that the entry will be based on a comprehensive marketing research otherwise the entry will face a failure as well as financial and credit losses because a comprehensive marketing needs analysis of internal and external conditions. So the ultimate goal of this study was to develop a general understanding of important national terms and the conditions of the target market to establish the initial strategy to enter the world markets for oil and gas manufacturers.

Theoretical basis of research:

Export as well as the successful entry into global markets in recent years has reached to a critical point for many developing countries so that plays a distinct, important and effective role in economic growth. Export became as a catalyst in the state's economy. It increase the speed of growth and sharply reduce poverty and domestic unemployment. In fact we were in a period of history that business environments are highly changing and evolving, communication and globalization are on extraordinary growth path and all will be serve as creating new opportunities for enterprises. 1 In these circumstances, organizations and local companies in each country, Apart from its domestic and international conditions need to pay more attention to address the rapid expansion in global markets, as well as the diversification of products, and prepare themselves by software and hardware equipment suitable for intense competition in the international arena. In recent years, we have seen significant movements and changes in the global economy that will be ongoing for some time and requires attention for all organizations that are active in the international arena. Traditional international markets such as the United States of America and Europe are adjusting again the structure of their activities, to confront the emerging Asian economic powers and the Middle East. In the past few decades, a third of export growth, as well as the global economy has been from emerging economies such as Brazil, Russia, India and China and will continue in the future.
Organizations that plan to enter the field of exports should certainly to keep in mind the key points. The most important points include:
1. be able to show that there is global demand for our products.
2. There is a potential for higher prices for our products to justify entering the global market and accepting the risk.
3. Log into the international arena it is necessary when national competitive pressures narrowed the arena for our products to the extent that lead to lower prices as well as profit margins.
4. Internal strong competitors have found a high potential for foreign competition in the international arena and your company's competitive power is reducing in the domestic arena.
5. If you notice on entering the foreign market, you can bear lower investment costs compared with other competitors, to be required as soon as you think of entering foreign markets.
6. If the foreign market you want to enter is a market with different cultures but there is no problem in terms of cultural conflict.

In foreign markets and export as well as domestic markets, regardless of the activity, a successful export business at the first should identify entry barriers, because the barriers are an important part of the evaluation of the initial conditions, including evaluation the organization and external environment for exports. Identify the barriers including both the general challenges, which will be for every business in exports and foreign competition and also special cases that is specific to the business or organization. If you want to give an accurate assessment of the major barriers to exports, you should be more familiar with examples. Some sample barriers and challenges in competition at the international level any organization likely face to include:2

1. The cultural differences in the country of destination
2. Discipline in weak organizations in the country of destination
3. The infrastructure which lack the desirable standards in the country of destination
4. Political / economic turbulent in the country of destination

And some of challenges and obstacles that vary from organization to organization can be named as following:

1. Sources such as human resources that are familiar and perseverance in international activities
2. required Investment

Literature Review

Parente et al., in the paper published in 2013 examined the globalization strategies of a number of Brazilian multinational corporations. In this analysis, we have tried to study the strategies of several large companies before and after the recent economic crisis. Due to the success of the four companies, in addition to the recent strategies, this research has studied the history and entrance to global markets and the reasons for success. As the discussion on globalization strategy is general, including assessment and analysis of the situations at the heart of strategy, the research has shown an overview of entry, stability and success in global markets even in difficult economic conditions. Customer identification and organization related strategies are two main pillars discussed in this article (Parente, 2013). In a unique paper done by Teixeira et al., the relationship between trade and international business and making contact with appropriate international communications, especially from a political perspective has been examined. Poland and its domestic and international conditions were case study in this research, and the positive correlation between a number of issues such as global economy, geopolitics management and the impact of these cases to enter the global field have been analyzed (Teixeira, 2013). In another study conducted by Dreher et al., another case different from our study has been investigated, but knowledge about it will be certainly useful for entry into the international arenas. In this study, the role of local characteristics and conditions created in India following the internal reforms made for success of direct attracting the foreign investments has been examined.

Taken together the existing information from about 24500 technical exchanges and foreign investments in India between 1991 and 2004, the situation of this country before and after the domestic reforms was analyzed in the growth of foreign investments and technical exchanges.

Various factors such as market size, risk, and relative growth of the financial markets and the precedent experience of the particular are most important factors of entering foreign investment and entry to the market of a country (Dreher, 2012). Another good article should be referred to, is the study by Stevens on the decisive role of culture of the origin country in the timing of strategies to enter the global markets. In this study, Mr. Stevens noted the role of preliminary assessment factors on the international marketing strategy, that organizations decide in setting timing of strategies for entry into foreign markets by understanding and their initial assessment of the possible risks and benefits and leading to early or delayed arrival. In this study, the direct positive relationship between culture issues of the origin country in timing the strategy and the type of entry into target markets including foreign ones have been achieved as a result (Stevens, 2013).

An interesting study by Li et al., was conducted to examine the characteristics of the market and methods of entry of foreign banks. In this study, by identifying differences between the characteristics of the market in different regions, the researchers have been able to conclude that these factors and characteristics are the most decisive factors in the arrival of foreign banks. Factors such as development and non-development of target country, market size and the number of borrowers are considered as the most important factors in entering into markets of other countries which is initially analyzed by the foreign bank (Li, 2013). Another article which has examined the important issues such as market entry, investment, development and export and in particular the New Zealand market. In this paper, factors such as labor productivity, the investment to labor ratio, multi-agent employment and productivity were examined as the differences between successful organizations in exports and familiar with foreign markets, as well as organizations that plan to enter the export and the competition of other countries' market.

The paper noted that these factors have progressed and developed particularly in successful organizations that have been active for several years in exporting to foreign markets (Fibling, 2013). Prijker et al., studied the important effect of types of knowledge and integrating it to the success in globalization for organizations that are planning to invest in this area and tried to distinguish the variety of knowledge in a closer look. Tangible effect of tacit knowledge gained from practical experience and knowledge gathered from the past of organizations are knowledge that will help organization in the success, entry and assessment of the target country market (Prijkar, 2012).

Research methodology

The method of research is the most fundamental issue in any study. If a method fit the theme of the research is selected, the research will be done faster and safer. The basic objective of this study is to determine the relationships between phenomena, theory testing and adding to existing knowledge in a particular field.

The study is a fundamental one in terms of objective and descriptive in terms of data collection that the descriptive methods will be through a correlation method. The statistical population was 998 people, that the sample size was obtained 277 according to the Cochran formula and error level of 5%. The data collection tool is a close questionnaire in accordance with the five-point Likert scale. Multivariate regression analysis is used for analyzing the data.

The Analysis of Data

Descriptive statistics were revealed in terms of gender, men were much more than women (26.4% vs. 70.4%). Approximately 60% of respondents were married. In terms of education, bachelor degree was most frequent. Finally, more respondents were aged 20 to 40 years. Regression analysis is used for inferential statistics of this research. In the table below, results of the regression coefficient estimation is shown along with t-test statistics.

Table1: regression Test

structures	standard coefficient	t-statistic	significance level	VIF index
Organizational Resources	0.015	0.235	0.814	1.362
Organizational merits	0.187	2.871	0.004	1.350
Organizational strategies	0.247	3.864	0.000	1.301
Organizational Culture	0.013	-0.191	0.894	1.392
Political factors	0.104	1.762	0.079	1.106
Legal factors	0.033	0.554	0.580	1.146
Economic factors	0.040	0.651	0.515	1.232
Technological factors	0.033	0.495	0.621	1.398
Competitive forces	0.112	-1.723	0.086	1.355
Market size	0.103	1.562	0.119	1.374
Customer priorities	0.029	0.461	0.645	1.249
F statistical	4.869		coefficient of determination (R2)	0.168
F significance level	0.000		adjusted coefficient of determination (R2adj)	0.134

According to the results of the regression analysis, factors of 5Cs model are successful 16.8% in the statement of changes in export development as the dependent variable (R2 = 16.8%). On the other hand, according to F test statistic, the estimated model is statistically significant (F = 4.869, Sig. < 0.05) in the sense that there is a linear relationship between the explanatory variables (factors of 5Cs model) and export development.

Another way to check the collinearity between explanatory variables is to use variance inflation factors (VIF). A large VIF is a sign of a multicollinearity. Practical experiences suggest that if any of the VIFs exceed 5 or 10, it is a warning based on the fact that regression coefficients are poorly estimated due to multicollinearity (Mountgomery and Peck, 2003: 485). Based on VIF, it can be concluded that there is no colinearity between explanatory variables. This finding is consistent with the results obtained in previous section based on Pearson correlation coefficients.

The interpretation of estimated regression coefficients are separately presented in each of the hypotheses.

Hypothesis 1) organization impacts on export development.

Hypothesis 1-1) organizational resource impact on export development.

In this hypothesis, the relationship between organizational resources as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, a direct relationship exists between these two variables. Because the regression coefficient is estimated to be positive. But based on the t-test statistic, this association is not statistically significant ($t = 0.235$, $Sig > 0.05$). So there is no enough evidence to prove the hypotheses 1-1.

Hypothesis 1-2) competences of the organization (merits) impact on export development.

In this hypothesis, the relationship merits as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, a direct relationship exists between these two variables. Because the regression coefficient is estimated to be positive. Also based on the t-test statistic, this association is statistically significant ($t = 2.871$, $Sig, <0.05$). So hypothesis 1-2, is approved.

Hypothesis 1-3) organizational strategies impact on export development.

In this hypothesis, the relationship between organizational strategies as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, a direct relationship exists between these two variables. Because the regression coefficient is estimated to be positive. Also based on the t-test statistic, this association is statistically significant ($t=3.864$, $Sig, <0.05$.) So hypothesis 1-3, is approved.

Hypothesis 2) organizational culture has an impact on the development of exports.

In this hypothesis, the relationship between organizational culture as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, an inverse relationship exists between these two variables. Because the regression coefficient is

estimated to be negative. But based on the t-test statistic, this association is not statistically significant (t = -0.191, Sig.> 0.05). So there is no enough evidence to prove the hypotheses 2.

Hypothesis3) rules impact on export development.

Hypothesis 3-1) political factors affect the development of exports.

In this hypothesis, the relationship between political factors as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, a direct relationship exists between these two variables. Because the regression coefficient is estimated to be positive. On the other hand based on the t-test statistic, this association is statistically significant in error level 1.0 (t = 1.762, Sig. <0.1).So hypothesis 3-1, is confirmed.

Hypothesis 3- 2) legal factors impact on the development of exports.

In this hypothesis, the relationship between legal factors as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, a direct relationship exists between these two variables. Because the regression coefficient is estimated to be positive. Based on the t-test statistic, this association is not statistically significant (t = 0.554, Sig.> 0.05). So there is no enough evidence to prove the hypotheses3- 2.

Hypothesis 3- 3) economic factors impact on the development of exports.

In this hypothesis, the relationship between economic factors as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, a direct relationship exists between these two variables. Because the regression coefficient is estimated to be positive. Based on the t-test statistic, this association is not statistically significant (t = 0.651, Sig.> 0.05). So there is no enough evidence to prove the hypotheses3- 3.

Hypothesis 3- 4) technological factors impact on the development of exports.

In this hypothesis, the relationship between technological factors as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, a direct relationship exists between these two variables. Because the regression coefficient is estimated to be positive. Based on the t-test statistic, this association is not statistically significant in error level 1.0 (t = 0.495, Sig.> 0.05). So there is no enough evidence to prove the hypotheses3- 4.

Hypothesis 4) competitive conditions impact on export development.
Hypothesis 4-1) competitive forces influence on the development of exports.

In this hypothesis, the relationship between competitive conditions as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, an inverse relationship exists between these two variables. Because the regression coefficient is estimated to be negative. But based on the t-test statistic, this association is not statistically significant (t = -1.723, Sig<0.1). So there is no enough evidence to prove the hypotheses 4-1.

Hypothesis 4-2) Market size and growth rate impact on export development.

In this hypothesis, the relationship between Market size and growth rate as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, a direct relationship exists between these two variables. Because the regression coefficient is estimated to be positive. Based on the t-test statistic, this association is not statistically significant (t = 1.562, Sig.> 0.05). So there is no enough evidence to prove the hypotheses4- 2.

Hypothesis 5) customer's priorities impact on export development.

In this hypothesis, the relationship between Market size and growth rate as independent variables and export development as dependent variable is examined. Given the results obtained from regression analysis, a direct relationship exists between these two variables. Because the regression coefficient is estimated to be positive. Based on the t-test statistic, this association is not statistically significant (t = 0.461, Sig.> 0.05). So there is no enough evidence to prove the hypotheses5.

The following table summarizes the results of the research hypotheses:

Table 2: results of hypotheses test

5Cs model factors	independent variable	dependent variable	anticipated mark	Achieved mark	results
Organization	Organizational Resource	Export Development	+	+	Rejected
	Organizational merits	Export Development	+	+	Accepted
	Organizational strategies	Export Development	+	+	Accepted
Culture	Organizational culture	Export Development	+	+	Rejected
Law	Political factors	Export Development	+	+	Accepted
	Legal factors	Export Development	+	+	Rejected
	Economic factors	Export Development	+	+	Rejected

	Technological factors	Export Development			Rejected
Competition	Competitive forces	Export Development	+	–	Rejected
			+	+	
	market size	Export Development			Rejected
Customer	Customer priorities	Export Development	+	+	Rejected

Conclusion:

In the present study, we found that organization has a direct effect on export development, although organizational resources were not proved in this case, but organizational merits and organizational strategies, as expected, have obviously direct effect on export development and entry of the organization.

The result of the second hypothesis for oil, gas and petrochemical industries was predictable and survey results also showed the authenticity of this opinion that these industries, their development, research and investment and ultimately export of products are apart from the concerns and cultural differences between two countries.

Based on the proposed model, the relationship between export development and rules for precision is divided into four sub-divisions, which includes political, legal, economic and technological issues. In the present study, a direct relationship between political cases with the export development in oil, gas and petrochemical industries were confirmed but other subsets of the legal, economic and technological issues showed no relation to the export development in these industries. The experience in this industry also confirms the fact that, despite the widespread economic slowdown in Europe, the large oil companies, regardless of economic issues, kept on developing their oil and gas projects around the world, while many of these projects are started and are in progress in African countries with relative predictable political stability, unlike the countries without political equilibrium and tumultuous. The main point in this study is the lack of proof of export development in these industries with technological parameters because the oil and gas industries include high-tech industries that the capacity in it needs great investment and research, and progress in this area made it possible to provide more reasonable offers, at lower costs and higher technology in international tenders that in most cases, it is beneficial to the success of the organization. It should be noted that this study was conducted on domestic organizations that either lack international experiences and only think of it in their long-term programs, or, if entered this arena, they are novices and entered in very limited regions with no certain competitive environment and results should be strengthened in the future with the views of other foreign organizations experienced at the international level. Therefore, on the basis of respect to the results, only the political conditions of the two countries of origin and destination is considered with a direct effect on export development.

The competition condition showed no direct effect in this study. Although it is assumed that the condition prevailing the market is effective on export development and competition regardless of industry, but this study showed no positive factor for oil and gas industry. The only justification offered is that, despite multinational companies active in the international arena in the oil and gas industry, regardless of market conditions, organizations can enter the market and competition which are able to gain the development of

high-tech industries and spending lower cost. This strongly emphasizes that domestic organizations should well invest on their ability prior to enter the international arena.

The last hypothesis is customers that proved no direct effect on the export development of oil and gas industry. This case is justified because, as mentioned, the main factor of competition in this industry at international level is reputation and technological capabilities and the ability to perform quality projects at lower costs and if an organization has these competencies, the customers' tastes and priorities will be unaffected or less affected. For further research, the researchers are recommended to do this research with certain organizations in different provinces in certain areas of the downstream oil and gas industry.

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