

Full Length Research Paper

Influence world trade organization on Iran's carpet industry compatibility

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The article discusses about influence of accession to world trade organization (WTO) on Iran's carpet industry compatibility. Results of applying Pearson and regression tests show that by joining the world trade organization, carpet industry compatibility will be increased, domestic corporate resources will be improved, more international market segments will be captured and the industry's creativity strength will be promoted. Then the compatibility dimensions levels were calculated which compatibility and its dimensions apart from "creativity and innovation strength" had placed in the suitable situations. Then the dimensions weighs were been indicated by Friedman technique in direct order: industry's creativity and innovation strength; situation in the international market place; and domestic corporate resources. The most important strategies for improving current situation are: raising advertisement and marketing researches, production in terms of global customer needs, making exporters accustom to modern international marketing methods and e-commerce to maintain market segments.

Key words: World trade organization, Iran, carpet industry, compatibility.

INTRODUCTION

The 21st century seems to have begun with events indicative of the turbulence, challenges and opportunities ahead. Excesses during long economic boom in America surfaced with the dot-com crash. The attacks of September 2001 and the collapse of giants such as Enron and WorldCom have shaken confidence in business. With Japan passing through a decade-long painful transition, two biggest economies of the world are in poor shape (Ambastha and Momaya, 2004).

Survival and success in such turbulent days increasingly depend on competitiveness. Competitiveness has been described many by researchers as a multidimensional and relative concept. The significance of different criteria of competitiveness changes with time and context. Theories and frameworks must be flexible enough to integrate the change with key strategic management processes if their utility is sustained in practice (Barney et al., 2001).

The economy of Iran is in a condition where, on the one hand, trade liberalization is under severe international pressure and, on the other hand, in order to have sustainable development, Iran needs considerable development of non-oil exports and increasing its share of the total exports. Considering huge resources, capacities and potentials, it seems that, through proper support, direction and management, Iranian industries can achieve an acceptable level of competitiveness in the international market and have considerable effects in improving the economy of Iran. (Aghazadeh et al., 2007).

Iranian hand-made carpet industry influenced by remarkable cultural and artistic characteristics of the past centuries and decades, has always been a special production in the non-oil export basket; so that over the years it has had the first and highest rate of attracting currency and is responsible for 7% of all employment in Iran and is the source of income for several million Iranians (Almasi et al., 2010b).

During the recent years, exports of Iranian hand-made carpet has had a decreasing trend and lower prices of the carpets made by competitors from other countries as well

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as their compatibility with the taste of the international market are among reasons behind the development of some rival states in the international market. Besides, among reasons behind the failure of Iranian production and service companies in the international market, one can refer to their lack of competitiveness in the international markets.

This industry is one of most powerful ones in Iran (after petrochemical industry) and although the export rate was descending, but it was the top one all over the world until at 2008, which China and India could be replaced as the best hand-made carpet exporters. Not to applying new techniques like internet marketing, e-commerce and international marketing are the most reasons which make Iran to be situated in the third place (Almasi et al., 2010b).

Unfortunately, because of shortage in organizational, structural, managerial and especially commercial, Iran's carpet industry has situated in retrenchment period. In other side, ignoring the commercial and business fundamentals which include production process, its competitive advantages have been decreased (Hossaini et al., 2010). Therefore, in this paper we try to surveying Iran's carpet industry after joining to world trade organization.

Operational definition of variables

Compatibility: the strength of an organization or industry. Compatibility can empower them to do something which rivals are not able to do as well as them (Hossaini et al, 2010).

Iran carpet industry: one of the most powerful industries in Iran which have had descending rate in export in recent years and do not have a suitable situation in international markets (Hossaini et al, 2010).

World trade organization: an international organization which formulates the business global laws and is located in Genève, Switzerland (www.wto.org).

LITERATURE REVIEW

Compatibility

Compatibility can be considered as a multidimensional concept. It is looked at from three different levels: country, industry, and firm level. Competitiveness rooted from the Latin word, "competer", which means involvement in a business rivalry for achieving more market share. It can be described that economic strength of an entity with respect to its rivals in the international market economy in which goods, services, people, skills, and ideas move across geographical borders freely (Murths, 1998).

Compatibility can be defined as the ability to design, produce and/or market products superior to those offered by competitors, considering the price and non-price qualities (D'Cruz and Rugman, 1992). Compatibility processes are the processes which help identify the importance and current performance of core processes such as strategic management, human resources, operations management and technology management processes. The competitiveness process can be viewed as a balancing process which complements traditional functional processes such as operations management and human resources management. It increases the ability of an organization or industry to compete more effectively (Ambastha and Momaya, 2004).

When compatibility of industry is considered as the microenvironment of activity and competition of businesses, it assumes an underlying nature and approximates the national level; on the other hand, when it is considered as a collection of businesses active in a specialized field as compared with competitor industries, it is situated in the national as well as international competitive environment, it assumes a functional nature and becomes similar to the business level. Accordingly, in some cases, competitiveness of industry, conceptually and in regard to determinative factors of competitiveness, has commonalities with competitiveness of the country and businesses (Aghazadeh et al., 2007).

Buckley et al. (1988) view competitiveness of industry within a functional framework including aspects of competitive performance, competitive potential, and managerial process (Buckley et al., 1988). According to Michael Porter, there are two major factors affecting the profitability of a business in the market that include the structure of the industry in which the business is active and competitive locating of the business in that industry. These two factors are strategic factors that lead to formulation and implementation of business strategy (Hax and Wilde, 2001). Structure of the industry describes the value created by business activity of the members of the industry and also their capacity for contributing to the created wealth. In fact, an industry can be competitive and create more value compared with competitor industries in the competitive market only when it is in coordination with factors of national environment and enjoys cooperation among the forces of its internal structure (Dess and Lumpkin, 2003).

Michael Porter believes that the structure of industry typically has five forces: the intensity of competition among the rivals in the industry, threat of newcomers in the industry, threat of alternative products, bargaining ability of the buyers (customers), and bargaining ability of the suppliers. These five forces determine the attraction and competitiveness of industry in the competitive markets (Porter, 1979). Taking these forces into consideration, an active business in a specific industry can secure itself a suitable competitive position in the competitive markets (Aghazadeh et al., 2007).

Related views of compatibility

Resource-based view

In the 1970's and early 1980's, the industrial organization economics school had been a powerful approach to understand the sources of competitive advantage. The Five-Force model by Porter (1980) is a broadly known industry analysis framework, which is originated in industrial organization economics. By assuming resources are perfectly mobile, Industrial Organization scholars postulate that the structural features of industry, market-power and entry-deterrence, are the sources of sustainable competitive advantage (Porter, 1980).

In the middle 1980's, the resource school (resource-based view) emerged in strategic management field as a challenge to the Industrial organization economics thesis. The scholars of resource school theorize that firm resources, which are internal factors of the firms, are the main drivers of competitive advantage. It is well acknowledged that "Jay Barney developed the resource-based view into a full fledged theory" (Mintzberg et al., 1998).

The key concept of resource-based view developed by Jay Barney were published in 1991 under the title "Firm Resources and Sustained Competitive Advantage", and was further developed in to an analytical framework in the book "Gaining and Sustaining Competitive Advantage" published in 1996.

Overview of the articles "Firm Resources and Sustained Competitive Advantage": This theoretical paper is an attempt towards theory building in strategy literature for understanding sources of sustainable competitive advantage. This article is built on the notion that firm resources are the main driver of competitive advantage, which is the thrust of the resource school. Its major contribution to the development of resource school is that it proposes the characteristics or properties of resources that are associated with sustainable competitive advantage. Those properties are value, rareness, imitability, and substitutability. In short, the key argument of this article is that firm resources, in order to be the sources of sustainable competitive advantage, have to be simultaneously valuable, rare, imperfectly imitable, and non-substitutable. Overall, this article is well organized, has linkages from one section to another, and uses examples to illustrate the key argument at the end, which can help readers to better understand the author's argument (Barney, 1991).

Market oriented view

According to resource-advantage theory (Hunt and Morgan, 1996; Morgan and Hunt, 1995), market orientation is a very important resource of achieving competitive advantage. Market orientation or customer

orientation research can be traced back at least to 1950s (Deshpande et al., 1993). Among the first scholars to emphasize the marketing concept, Drucker (1954) states that: 'there is only one valid definition of business purpose: creating a customer ...'. The fact that market orientation has been intensively studied may also be due to its affective managerial relevance (Deshpande and Farley, 1998). There have been empirical measurements of market orientation developed by a number of scholars (Narver and Slater, 1990; Kohli and Jaworski, 1990; Kohli et al., 1993) from both perspectives of the organizational culture and a set of processes and activities. On that basis, a customer-oriented scale for measuring market orientation was proposed. Regardless whether the measurement is focusing on culture or processes/activities, a market orientation should include one value that all members of the organization commit to continuously create superior value for customers (Liu et al., 2003).

Creativity and innovation based view

In today's complex world that organizations and industries do their best to defeat their rivals, creativity and innovation in productions and services will be required more than before. This view can be considered as a part of resource-based view typically. If resources are classified into two, that is, tangible and intangible, so creativity and innovation strength will be a subset of intangibles assets (Dess and Lumpkin, 2003).

Creativity and innovation strength may relate to human resource or organizations' assets. Human resource creativity strength cause producing differentiate goods and services and innovation in organization assets decrease operational costs, producing and delivering time, product development and market penetration (Mehri, 2004). Some researchers believe that innovation is the base of competitive advantage because in the long run, competitiveness will be continued by innovation strength (Haghshenas et al., 2010).

This view includes research and development strength, IT applying strength and knowledge management (McGahan and Silverman, 2006). The importances of the view for carpet industry is because of decision makers and managers pay attention just internal resources and have ignored other facets of achieving competitive advantage like e-commerce, internet marketing and knowledge which leads to descending of export rate (Almasi et al., 2010a).

Conceptual framework and hypotheses

Figure 1, which is derived Mehregan et al (2008) model, presents the effect of joining to world trade organization on Iran's carpet industry consist of internal resources,

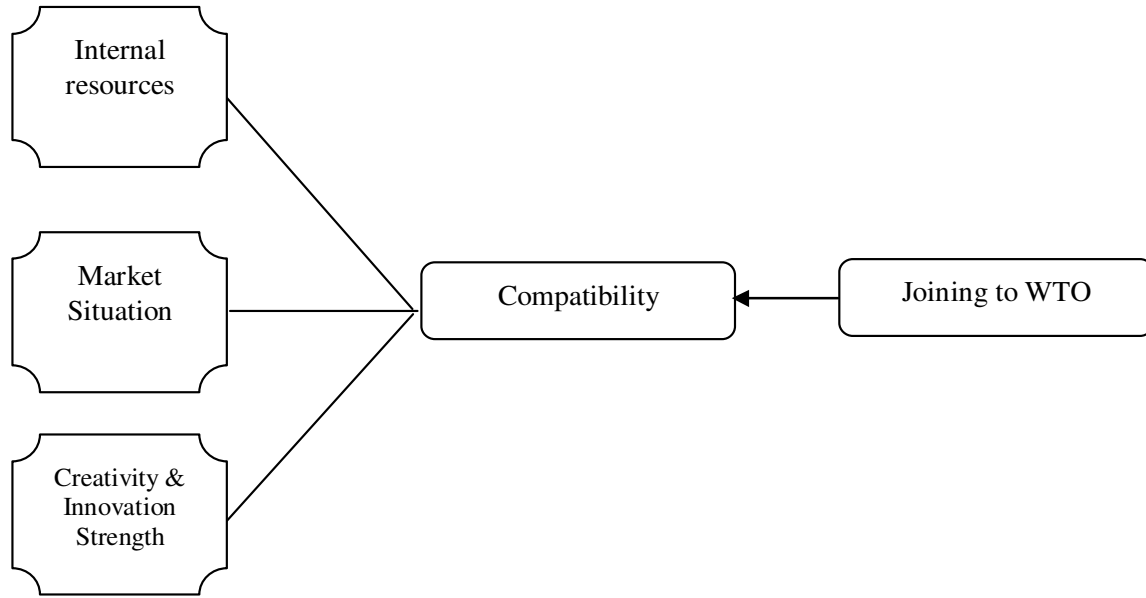


Figure 1. Conceptual framework of Research (Mehregan et al., 2008).

market situation and creativity and innovation strength. “Joining to WTO” has been considered as independent variable and “Iran’s carpet industry compatibility” which includes “internal resources”, “market situation” and “creativity and innovation strength” is the dependent variable.

1. By joining to world trade organization, Iran’s carpet industry compatibility will be increased.
2. By joining to world trade organization, domestic corporate resources will be improved.
3. By joining to world trade organization, more international market segments will be captured.
4. By joining to world trade organization, the industry’s creativity strength will be promoted.

METHODOLOGY

The study is carried out in a society involving 67 people from chairmen of Iran National Carpet Center (INCC) and business room of Qom province. Whereas this number seems to be inadequate, the sampling was done through an integral counting method.

The current study can be considered as a descriptive survey if to view from data collection aspect and as an applied research if to investigate the goals of the study. To collect the data, library method (to refer to books, articles, libraries, etc...) and fieldworks (questionnaire) was being used. The questionnaire was designed in three parts; 10 questions in internal resources, 19 questions in market situation, and 15 questions in creativity and innovation strength and then distributed within the samples (participants).

To analyze the data SPSS 17, Pearson, regression, average tests and AHP technique were utilized.

The management experts were being asked to evaluate the validity of questionnaires. For this mean, the questionnaires were given to some professors and experts in management, and after

their modifications were being applied and they confirmed it, the questionnaires were given to the participants.

To determine the questionnaires’ reliability, the ‘Cronbach alpha technique’ was applied. For this purpose, 35 persons were chosen by random (from the participants) and the questionnaires were given to them. The ‘Cronbach’s alpha’ values for all variables were calculated. These values support the reliability of questionnaires because the calculated results for cronbach’s alpha are more than 0.7 (Nunnally and Bernstein, 1994).

DATA ANALYSIS

Kolmogorov-Smirnov test

First of all for data analyzing, we used Kolmogorov-Smirnov test to identify the statistical society normality. The results are presented in Table 1. The results are presented in Table 2. As Table 2 shows, all calculated amounts are more than 0.05, so the normality of statistical society is proved. Therefore to analyzing data, we apply some parametric test.

Pearson test

Regarding the study of the effect of joining to WTO on Iran’s carpet industry compatibility, Pearson test was applied. Results are shown in Table 3. Table 3 has shown there are positive and meaningful correlations between joining to WTO and Iran’s carpet industry compatibility, internal resources, market situation and creativity and innovation strength.

Table 1. The results of reliability.

Variables	Cronbach alpha
Knowledge management variable	0.81
Intellectual capital variable	0.77
Competitive advantage variable	0.84

Table 2. Kolmogorov-Smirnov test result.

Variables	Compatibility	Resource based view	Market situation	Creativity and innovation strength
Sig	0.086	0.122	0.59	0.81

Table 3. Pearson result for hypotheses.

Hypotheses	R	Sig	Result
Main hypothesis	0.512	0.000	accepted
First secondary hypothesis (internal resources)	0.423	0.000	accepted
Second secondary hypothesis (market situation)	0.485	0.000	accepted
Third secondary hypothesis (innovation strength)	0.577	0.000	accepted

Table 4. Regression result for main hypothesis.

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. error	Beta		
(Constant)	0.512	0.433		0.595	0.000
Joining to WTO	0.473	0.076	0.616	5.461	0.007

Dependent variable: compatibility.

Table 5. Regression result for secondary hypotheses.

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. error	Beta		
(Constant)	0.437	0.459		10.236	0.000
Internal resources	0.395	0.035	0.513	5.422	0.017
Market situation	0.421	0.064	0.579	5.736	0.021
Innovation strength	0.481	0.071	0.633	6.152	0.009

Variable: Compatibility.

Regression test

The data was tested using the linear regression analysis to look at the influences of joining to WTO on compatibility of the respondent. The results are shown in Table 4. Table 4 indicates the positive and meaningful influence of joining to WTO on Iran's carpet industry compatibility and its indices.

Table 5 shows the outcome of regression analysis for compatibility as dependent variable. It means joining to

WTO have positive and meaningful impact on Iran's carpet industry compatibility and its facets.

Average test

Table 6 shows the levels of carpet industry compatibility and its dimensions. As Table 6 shows, compatibility and its dimensions apart from "creativity and innovation strength" are placed in the suitable situations.

Table 6. levels of compatibility and its dimensions.

Variables	Z _{0.05}	Z	result
Compatibility	1.645	4.22	Accepted
Internal resources	1.645	8.16	Accepted
Market situation	1.645	5.6	Accepted
Innovation strength	1.645	1.5	Rejected

Table 7. Final scores of compatibility indices.

Indices	Internal resources	Market situation	Creativity and innovation strength
Internal resources	1.00	-0.04	0.86
Market situation	-0.04	1.00	0.08
Creativity and innovation strength	0.86	0.08	1.00

Table 8. AHP test results to categorize compatibility indices.

Indices	Internal resources	Market situation	Creativity and innovation strength	Average
Internal resources	0.52	0.08	0.47	0.32
Market situation	0.04	0.96	-0.02	0.33
Creativity and innovation strength	0.44	-0.04	0.55	0.35

AHP technique

The data was tested using the AHP technique to classify the compatibility indices. The results are shown Tables 7 and 8. Inconsistent matrix and average of every dimension are presented in Table 8. It is clarified by joining to WTO the creativity and innovation (0.35) has definitely increased and then "market situation" (0.33), "internal resources" (0.32) were put in other steps in the direct order. So attending to Table 8, Iran's carpet industry compatibility is related to "creativity and innovation strength" more than other dimensions.

CONCLUSION AND SUGGESTIONS

In this paper, the situation of Iran's carpet industry in trend of joining to WTO was surveyed. After comprehensive definitions of compatibility and testing a model for it, the research hypotheses were proved by Pearson and regression analysis and the results are:

1. By joining to WTO, carpet industry compatibility will be increased.
2. By joining to WTO, domestic corporate resources will be improved.
3. By joining to WTO, more international market segments will be captured.
4. By joining to WTO, the industry's creativity strength will

be promoted.

The results of applying average test show that Iran's carpet industry compatibility, internal resources and market situation are placed in a favorite level. But creativity and innovation strength of Iran's carpet industry is not suitable.

Finally, by using Friedman test, the compatibility dimensions were categorized that "creativity and innovation strength" was the most important dimension and "internal resources" was placed in the last rank.

Regarding to aforementioned results and analyzing the strengths, weaknesses, opportunities and treatments, some strategies will be presented as:

1. Producing in base of international customers' needs (production and market development).
2. Increasing marketing activities, advertising and market research to compete with internet rivals (market penetration, market development).
3. Focus on market research to identify global customers (market development).
4. Make familiar exporters with new international marketing, export and e-commerce techniques to maintain market share.

With attention to categorizing compatibility indices, creativity and innovation strength was the most important index for carpet industry and should be invested properly

to have an affective existence in international markets after joining to WTO.

Finally we would have to say some investment should be done on research and development and organizational knowledge to be able to make carpet industry ready for existing in global markets.

REFERENCES

- Aghazadeh H, Estiry M, Osanloo B (2007). "Investigating effective factors on competitiveness in Iranian enterprise". *Economical Researches J.*, 12(46): 89-117.
- Alamsi H, Kashani FH, Saeedi N, Pazvari MH, Hosseini Z (2010a). Studying the effect of knowledge management on e-commerce. 1st conference on e-commerce. Booshehr Islamic Azad University. Booshehr. Iran.
- Almasi H, Hossaini Y, Saeedi N, Hasanpoor M, Gholipoor M (2010b). Designing a Model to gain competitive advantage for Iran's hand-made carpet industry. Fifth International Conference on Strategic Management. Tehran. Iran.
- Ambastha A, Momaya K (2004). *Competitiveness of Firms: Review of theory, frameworks and models*. Singap. Manage. Rev., 26(1): 45-61.
- Barney J, Wright M, Ketchen DJ (2001). The Resource-based View of the Firm: Ten Years After 1991. *J. Manage.*, 27: 625 – 641.
- Barney J (1991). Firm Resources and Sustained Competitive Advantage. *J. Manage.*, 17: 99-120.
- Buckley PJ, Pass CL, Prescott K (1988). Measures of International Competitiveness: A Critical Survey, *J. Market. Manage.*, 4(2): 175-200.
- D'Cruz J, Rugman A (1992). *New Concepts for Canadian Competitiveness*. Kodak. Canada.
- Deshpande J, Farley U (1998). Measuring market orientation: generalization and synthesis. *J. Mark. Focused Manage.*, 2: 213-32.
- Deshpande R, Farley JU, Webster FE (1993). Corporate culture, customer orientation, and innovativeness in Japanese firms: A quadrad analysis. *J. Mark.*, 57: 23– 27.
- Dess G, Lumpkin TG (2003). *Strategic Management*, Mc Graw-Hill.
- Haghshenas Kashani F, Saeedi N, Pazvari MH (2010). Strategic Planning for Persian Carpet Industry in Trend of Joining to WTO: A SWOT approach. *J. Bus. Surv.*, 8(46): 58-68.
- Hax AC, Wilde DL (2001). The Delta Model —Discovering New Sources of Profitability in a Networked Economy. *Eur. J Manage.*, 9(4): 379–391.
- Hossaini SY, Kashani FH, Saeedi N (2010). Designing a model for Iran's carpet industry compatibility in trend of joining to World Trade Organization. 4th international conference on strategic management. Tehran. Iran.
- Hunt SD, Morgan RM (1996). The resource-advantage theory of competition: dynamics, path dependencies, and evolutionary dimensions. *J. Mark.*, 60: 107– 114.
- Kohli AK, Jaworski BJ (1990). Market orientation: the construct, research propositions, and managerial implications. *J. Mark.*, 54: 1–18 (April).
- Kohli AK, Jaworski BJ, Kumar A (1993). MARKOR: a measure of market orientation. *J Mark. Resour.*, 30: 467– 77.
- Liu SS, Luo X, Shin Y (2003). Market-oriented organizations in an emerging economy A study of missing links. *J. Bus. Res.*, 56: 481–491.
- McGahan AM, Silverman BS (2006). Profiting from Technological Innovation by Others: The Effect of Competitor Patenting on Firm Value. *J. Res. Policy*. 35(8): 1222-1242.
- Mehregan MR, Asgharizade E, Safari H (2008). Designing a model for corporate competitiveness measurement through structural equation model: case study: Iran's National Petrochemical Company. 12(46): 1-36.
- Mehri A (2004). Designing a competitive advantage model for auto industry of Iran. Ph.D Thesis. Faculty of management. Tarbiat Modarres University. Iran.
- Mintzberg H, Ahlstrand B, Lampel J (1998). *Strategy Safari*. NY: Free Press.
- Morgan RT, Hunt S (1995). The comparative advantage theory of competition. *J. Mark.*, 59: 1– 15.
- Murths TP (1998). Country Capabilities and the Strategic State: How National Political Institutions Affect MNC Strategies. *J Strategic Manage.*, 15: 113-129.
- Narver JC, Slater SF (1990). The effect of a market orientation on business profitability. *J. Mark.*, 54: 20–35.
- Nunnally JC, Bernstein IH (1994). *Psychometric theory*. Vol 3, New York: McGraw-Hill.
- Porter ME (1979). How Competitive Forces Shape Strategy. *Harv. Bus. Rev.*, 57(2): 137-145.
- Porter ME (1980). *Competitive Strategy*. Free Press. New York. www.WTO.org.