İSTANBUL UNIVERSITY PRESS

Istanbul Business Research, 51(1), 327-358
DOI: 10.26650/ibr.2022.51.912569
http://ibr.istanbul.edu.tr/
http://dergipark.org.tr/ibr

Istanbul Business Research

Submitted: 10.04.2021
Revision Requested: 03.10.2021
Last Revision Received: 15.12.2021
Accepted: 29.12.2021
Published Online: 30.03.2022

RESEARCH ARTICLE

The Impact of Countries' Credit Rating Scores on the Export Performance of Companies*

Ruhan İri[1], **Esen Gürbüz**[2]

Abstract

In the research, a conceptual model with the export performance scale EXPERF (Export Performance Scale) being the dependent variable and with country credit ratings being the independent variables has been developed, and it is intended to empirically investigate the impact of the country credit rating score on the export performance of enterprises by focusing on the country credit rating among many factors that affect the export performance of enterprises. Regarding the model, in the first stage, the relation between the country's credit rating covering the years between 1993-2016 and the export performance of the enterprises is examined using secondary data through panel unit root tests analysis. In this context, the H_1 hypothesis that the country credit rating score given by the credit rating agencies has an impact on the export performance of companies is supported, and it is found that the credit rating score of Turkey affects the export performance of businesses. In the field research covering the second stage of the research, ISO 500 enterprises constitute the universe in which the data is collected.

A questionnaire regarding the perceptions of business executives about the export performance of companies in 2013, when Turkey's credit rating score was raised up to investable level, and in 2016, when Turkey's credit rating score was lowered, was developed based on the EXPERF scale, and the export performance was measured with online or face-to-face application of the questionnaire to the business executives who participated in the study voluntarily. A judicial sampling method was used in the study, and 306 business executives responded to the questionnaire. The H_2 hypothesis that there is a difference between the change in the country credit rating and the export performance of the enterprises is not rejected according to the EXPERF scale, which measures the increase in the country credit rating in 2013 and the decrease in the country credit rating in 2016. Export performance of enterprises differs significantly in the periods when the credit rating of the country decreases and rises.

Keywords

Export Performance Scale, EXPERF, Country Credit Rating Score, Panel Data Analysis

Introduction

It is a known fact that businesses have to obtain and maintain competitive advantage in order to survive in local and global markets and to be among the leading businesses in the sector in which they operate. Likewise, the level of exports and export performance of businesses

* The study was put forth from the doctoral dissertation "The Impact of Sovereign Rating on Export Performance of Firms: An Empirical Research" prepared by the first author under the consultancy of the second author.

1 **Corresponding Author:** Ruhan İri (Asst. Prof. Dr.), Niğde Ömer Halisdemir Unviersity, Niğde Vocational School of Social Sciences, Department of Marketing and Advertising, Niğde, Turkiye. E-mail: ruhaniri@ohu.edu.tr ORCID: 0000-0002-5981-9673

2 Esen Gürbüz (Prof. Dr.), Niğde Ömer Halisdemir Unviersity, Faculty of Economics and Administrative Sciences, Department of Business, Niğde, Turkiye. E-mail: esen@ohu.edu.tr ORCID: 000-0001-5156-1439

To cite this article: Iri, R., & Gurbuz, E. (2022). The Impact of Countries' Credit Rating Scores on the Export Performance of Companies. *Istanbul Business Research, 51*(1), 327-358. http://doi.org/10.26650/ibr.2022.51.912569

engaged in export, which has an effective role in foreign trade between countries, depends on their competitive advantage. Export-oriented businesses may want to realize export strategies that will benefit them in an intense competition environment while also considering the possible effects of credit rating scores given by credit rating agencies on export performance. However, the main question here is "Whether or not the country's credit rating has a significant impact on the export performance of the enterprises, and if any, the direction (positive or negative) and severity of this effect occurs". Tookey's works in the 1960s underlie the research in the field of export performance. Tookey is the first researcher to identify performance-related factors in export activities in his studies (Kahveci, 2013: 54-55). In the literature, while the export performance of the businesses and the credit ratings of the countries are evaluated in different studies independently, the effect of the credit ratings given by the credit rating agencies on the export performance of the enterprises has not been examined. The lack of a study investigating the effect of the credit rating of a country on its export performance makes it essential to investigate this issue.

The credit rating of a country may also be considered among the factors that are thought to have an impact on the export performance of the businesses, and it can be evaluated among the uncontrollable factors. The credit rating scores that are given to Turkey by three major credit rating agencies, namely Standard &Poor's, Moody's, and Fitch, can be assessed in the factors affecting the performance of the export business, which is described as a key issue. Since the country credit rating affects different parameters in the country's economy, it may also have an impact on the export performance of businesses. Factors affecting country credit ratings and export performance may not be completely independent from each other, and country credit rating may have an impact on the export performance of businesses as well. Therefore, the impact of country credit ratings given by credit rating agencies on export performance of the businesses is considered to be a research subject worth investigating. Credit rating scores that credit rating agencies give to businesses at the micro-level and to countries at the macro-level are among the factors affecting the export performance of businesses. The purpose of the research is to determine whether the credit rating score given to a country by the credit rating agencies has a statistically significant effect on the export performance of the companies in that country. The research also aims to find out the level and direction (positive/negative) of that effect, if any.

The study is considered significant as it focuses on the credit rating as a factor that affects the export performance of businesses, and it analyses the issue in a two-stage process. The results obtained in the research are also considered significant because they will bring recommendations to the practitioners in terms of shaping the marketing and export strategies of the companies according to the credit rating of the countries given by the international credit rating agencies. The study is thought to have important contributions not only to the literature, but also to practitioners. When the relevant literature is analysed, it is seen in many

of the empirical studies that the factors affecting the credit rating of countries given by the credit rating agencies and the factors affecting the export performance of the companies are studied separately and that the variables related to these factors are different from each other. Another important contribution of the study to the literature is that there is no study in which a country's credit rating is associated with the export performance of the companies. The investigation of the effect of the country's credit rating score on its export performance specific to Turkey is thought to contribute both to the literature and application. In the first stage, econometric panel data analysis and panel unit root tests were used, and in the second stage, an empirical study was carried out with the survey method.

Export Performance Measurement

In strategic management literature, the concept of performance is expressed with the sales of businesses and the changes in sales profit and market share. Accordingly, a proactive increase in sales, sales profit and market share is a measure of good performance for a business. From this perspective, export performance can be closely related to the satisfaction levels of the business owner, manager, employee and shareholders from export sales, export sales profits, the development of the market share in the foreign country and the positive change in the sales, profits, and foreign market shares (Gray et al., 2000: 151). Export performance is the level of achievement of both economic and strategic objectives of a business in order to export its product in the foreign market through the planning and implementation of its export marketing strategy. A business usually undertakes an export initiative that covers a number of objectives which can be economic (profits, sales, costs, etc.) and / or strategic (market growth, success in competition, adherence to the foreign market, increase in product / business awareness, etc.). The degree to which a business achieves its strategic and economic goals is the measure of its export performance. The most widely used measures of export performance are at economic and business levels such as export sales, export-based growth, and export profits. Export performance measures may consist of the measures (i) at the product-market export initiative level, (ii) combination of both economic and strategic dimensions, and (iii) both the subjective and objective measures (Cavusgil & Zou, 1994: 4-5).

In the literature, export performance is generally discussed within three aspects namely (i) financial, (ii) strategic, and (iii) performance satisfaction. In particular, a popular trend is to approach performance metrics and satisfaction together within a single export performance dimension. It is the approach described as a compound psychological variable (emotional state) that evaluates the effectiveness of a marketing program in terms of sales revenue, sales volume, profitability, market share, and overall performance (Lages & Montgomery, 2004: 1190). Rosson & Ford (1982) state that export marketing strategy affects export performance (Rosson & Ford, 1982: 70). According to the results of the research conducted by Cavusgil & Zou (1994), international competence and managerial commitment of a business are the key

determinants of its export performance. Marketing variables, the competency of the business, and management promises all have a direct impact on export performance. Export marketing strategy is affected by internal factors (business and product features) and external factors (industry and export market features) (Cavusgil & Zou, 1994: 1).

Export performance is also evaluated in terms of businesses' abilities to increase their sales in overseas markets, strengthen their competitive position, develop new products, increase product quality, reduce the time to provide products and services for customers, and increase their market shares (Rekarti et al., 2018: 110). Ibrahim & Ogunyemi (2012) handle the export performance of businesses in 3 dimensions: (i) financial performance (revenues, profit margins, return on investment, etc.), (ii) strategic or market performance (competitiveness, market share etc.), and (iii) achieving subjective goals of a business (the number of geographic markets served, strategies to penetrate export markets, etc.) (Ibrahim &Ogunyemi, 2012: 443). Cavusgil & Zou (1994) suggest that the most popular indicators of export performance are (i) marketing variables (ii) firm competence, and (iii) management commitment (Cavusgil & Zou, 1994).

When the related literature is reviewed, it is seen that there are very few agreements among researchers on how to define and measure success in exports. Researchers have mostly measured export success using quantitative or qualitative measures. The most popular quantitative export success measures are (i) growth of export sales, (ii) intensity of exports (the percentage of total sales exported), (iii) export market share, and (iv) combined measures using the combination of the first three variables. Researchers using the interactive approach to examine exporter/importer relationships also prefer the use of qualitative measurement such as perceived satisfaction from the relationship. None of the above-mentioned measurements are exempt from criticism. For example, export intensity may be affected by changes in the denominator (i.e., sales) and the numerator. It is often very difficult to measure the export market share, especially for small businesses. It is also suggested to use different methods according to business size. Qualitative measurements, though they provide more information about the relationship, have weaknesses as well due to the fact that real performance is related to measuring performance perceptions rather than itself (Das, 1994: 21-22).

Export performance is generally measured in three different ways which are associated with different conceptualizations of the structure. The most common form of conceptualizing export performance focuses on the financial results of exports. Export performance is usually measured by determinants such as export sales, export sales growth, export profits, and export intensity (export/sales ratio). Another important way to conceptualize export performance is based on the strategic outcome of exports. In this method, businesses usually have some strategic targets in exports, i.e., financial targets. This view advocates that achieving strategic goals such as increased competitiveness, increased market share or enhanced strategic po-

sition should be seen as an integral part of export performance. Another conceptualization of export performance supports the use of perceptual or attitudinal performance measures. The logic behind this conceptualization, taking up exports positively and / or being satisfied with export operations is a strong indicator of success in exports. In this approach, the export performance of a business is evaluated either directly through indicators such as perceived export success and satisfaction with the export initiative, or indirectly by measuring the changes in the attitudes of the business towards export tendency, attitude towards export, and overcoming the obstacles to export (Ural, 2009: 149).

In the study conducted by Beleska-Spasova (2014), it is stated that there are several internal (business-specific) and external (environment-specific) factors as the potential determinants of export outcomes in literature and that these factors may give positive, negative, neutral, or even contradictory results as to export performance. It is also asserted that export performance criteria are usually classified in two wide groups such as economic/financial criteria (sales-related and market-related) and noneconomic criteria (meeting expectations, export success, customer satisfaction, and business reputation) and that there exists objective (experimental) and subjective (perceptual) criteria.

Focusing on the relevant literature published between 1987 and 1997, Zou & Stan (1998) determined that there is no agreement on how export performance can be measured. They divided all measures of export performance into seven categories consisting of 33 variables representing that represent financial (sales, profit, growth measures), non-financial (perceived success, satisfaction, goal success), and composite scales. These categories are determined as internal (4 factors) and external (3 factors) determinants. External factors consist of (1) industry characteristics, (2) foreign market characteristics, and (3) internal market characteristics while the internal factors are comprised of (4) export marketing strategy (5) management attitudes and perceptions, (6) management characteristics, and (7) business characteristics and capabilities (Zou & Stan, 1998: 342-343). Chen et al. (2016) examined 124 articles published in 30 journals between 2006 and 2014 to evaluate the determinants of export performance and concluded that there was a low consensus in measuring export performance. Among the 124 studies reviewed, export performance is measured in 53 ways, with only 23 different measures used once or twice. Although several broad classifications such as the EXPERF Scale by Zou et al. (1998) have been developed in these studies, there is still no uniform conceptualization and operationalization of export performance. The economic criteria such as export profitability (51 studies), export sales growth (45 studies), export sales (38 studies), and export intensity (36 studies) are the most frequently used export performance criteria. While non-economic performance criteria are used less frequently, it has been determined in some studies that satisfaction with export performance (25 studies) and export target success (15 studies) are frequently used. Remarkably, among the revised articles, there are 41 studies that made use of only one indicator of export performance (Chen et al., 2016: 629).

Sousa et al. (2008) evaluated 52 articles published between 1998 and 2005 and discovered that there were 40 different determinants of export performance. 31 out of these 40 determinants are internal factors, and 9 of them are external factors. They have classified the internal factors under the title of export marketing strategy, business characteristics and management characteristics while external factors are classified within foreign and domestic market characteristics (Sousa et al., 2008: 353). The variables and measures of export performance obtained from this and other research carried out in the literature are given in Tables 1, 2, and 3.

Table 1

Internal Variables of Export Performance in the Literature

	Authors						
Name of the Variable Internal Factors	**Aaby and Slater 1988**	**Madsen, 1989**	**Zou and Stan, 1998**	**Sousa et al. 2008**	**Grandi-netti and Mason 2012**	**Hasa-ballah et al. 2019**	**Gertner et al. 2007**
Export Marketing Strategy	✓		✓	✓	✓		
Market Selection	✓						
Use of Intermediaries	✓						
Staffing	✓						✓
Product Strategy	✓	✓	✓	✓			
Price Strategy	✓	✓	✓	✓			
Promotion Strategy	✓	✓	✓	✓			
Distribution Strategy	✓	✓	✓	✓			
Internalisation of Marketing Functions		✓					
Adaptation of Marketing Policy		✓					
Propensity to Export	✓						
Export Sales	✓						
Export Problems	✓						
Exporters versus Non-Exporters	✓						
Level of Export	✓						
Perceptions towards Export	✓						
Export Growth Intensity	✓						
Barriers to Export	✓						
Proactivity / Reactivity				✓			
Market Research		✓	✓	✓			
Market Growth				✓			
Service Strategy				✓			
General Export Strategy				✓			
Innovation				✓			
Risk Taking				✓			
Export Planning	✓	✓	✓	✓			
Export Organization			✓		✓		✓
Export Policy	✓	✓					
Export Executive							✓

Name of the Variable Internal Factors	Authors						
	Aaby and Slater 1988	Madsen, 1989	Zou and Stan, 1998	Sousa et al. 2008	Grandi-netti and Mason 2012	Hasa-ballah et al. 2019	Gertner et al. 2007
Number of Export Markets							✓
Export Regularity							✓
Distribution Channel Relationship			✓	✓			
Control	✓	✓		✓			
Process				✓			
Cooperation Strategy				✓			
Capital Origin							✓
Company Features and Competencies	✓	✓		✓	✓		✓
Company Size	✓		✓	✓	✓		✓
International Experience		✓		✓	✓		✓
Market Versatility				✓			
Market Planning							
Export Exploration Analysis							
General Firm Resources		✓					
Top Management Support		✓					
Status of Internal Export Organization		✓					
Company Capability / Competence	✓		✓	✓			
Export/Market Knowledge	✓	✓					
Idle Capacity							✓
Number of Years Exporting							✓
Internationalization Degree				✓			
Internationalization Modes				✓			
Company Age			✓	✓	✓		
Sector / Product Type				✓			
Organization Culture				✓			
Ownership Structure				✓			
Production Management				✓			
Adaptation				✓		✓	
Loyalty				✓			
Trust				✓		✓	
Commitment	✓			✓		✓	
Cooperation				✓		✓	
Communication	✓			✓		✓	
Conflict				✓			
Company Performance				✓			
Company Technology	✓	✓	✓				
Quality	✓						
Profit Likelihood							
Management Features/Attitudes and Perception	✓		✓	✓			

Name of the Variable Internal Factors	Authors						
	Aaby and Slater 1988	Madsen, 1989	Zou and Stan, 1998	Sousa et al. 2008	Grandi-netti and Mason 2012	Hasa-ballah et al. 2019	Gertner et al. 2007
Export Commitment and Support			✓	✓			
Education			✓	✓			
International Experience			✓	✓			
International Orientation			✓				
Age				✓			
Innovation				✓			
Financial Incentives	✓						
Competition	✓						
Domestic Market Potential							
Market Potential	✓						
Risk	✓						
Profit	✓						
Service Government Incentives	✓						
Perceived Export Advantages			✓				
Perceived Export Motivation			✓				
Perceived Export Barriers			✓				

Table 2

External Variables of Export Performance in the Literature

Name of the Variable External Factors	Aaby and Slater, 1988	Madsen, 1989	Zou and Stan, 1998	Sousa et al. 2008	Gertner et al. 2007
Environment	✓				
Foreign Market Features		✓	✓	✓	✓
Export Market Attractiveness		✓	✓		
Domestic Market Attractiveness		✓	✓		
Legal and Political				✓	
Environmental Turbulence				✓	
Cultural Similarity				✓	
Market Competition			✓	✓	
Export Market Barriers		✓	✓		
Environmental Hostility				✓	
Economic Similarity				✓	
Channel Accessibility				✓	
Exploring the Consumer				✓	
Physical Proximity of Main Export Markets		✓			✓
Cultural Proximity		✓			✓
Market Diversity					✓
One Industrialized Market					✓
All Industrialized Markets					✓
Industry Characteristics			✓		

Name of the Variable External Factors	Aaby and Slater, 1988	Madsen, 1989	Zou and Stan, 1998	Sousa et al. 2008	Gertner et al. 2007
Industry's Technological Intensity			✓		
Industry's Level of Instability			✓		
Internal Market Features			✓	✓	
Export Support				✓	
Environmental Hostility				✓	

Table 3

Measures of Export Performance in the Literature

Measures of Export Performance	Authors				
	Zou and Stan, 1998	Katsikeas et al. 1996	Gertner et al. 2007	Madsen, 1989	Zou et al. 1998
Financial Measures	✓		✓		✓
Sales Measures	✓	✓	✓	✓	✓
Profit Measures	✓	✓		✓	✓
Growth Measures	✓		✓	✓	✓
Market Share	✓	✓			
Export Intensity			✓		
Non-Financial Measures	✓		✓		
Perceived Success	✓				
Satisfaction	✓				
Goal Achievement	✓				
Perceived Export Experience			✓		
Perceived Export Performance			✓		
Perceived Export Goals Accomplishment			✓		
Composite Scales	✓				
Objective Firm Characteristics		✓			
Size		✓			
Exporting Experience (Length, Scope)		✓			
Export Related Perception Variables		✓			
Export Stimuli		✓			
Exporting Problems		✓			
Competitive Advantages		✓			
Export Commitment		✓			
Separate Export Department		✓			
Foreign Market Entry and Customer Selection Criteria		✓			
Regular Export Market Visits		✓			
Export Planning and Control		✓			
Strategic Measures					✓
Global Competitiveness					✓

Measures of Export Performance	Authors				
	Zou and Stan, 1998	Katsikeas et al. 1996	Gertner et al. 2007	Madsen, 1989	Zou et al. 1998
Strategic Position					✓
Global Market Share					✓
Satisfaction Measures					✓
The Satisfactoriness of the Export Venture					✓
The Success of the Export Venture					✓
The Rate of Export Venture's Meeting the Expectations					✓

Zou et al. (1998) developed the EXPERF scale, which they applied in a sample of US (United States of America) and Japanese companies. They emphasized that the scale may not be suitable for use in different countries as the studies in the literature were conducted in one single country context and there was not an internationally consistent measurement scale. The EXPERF scale is comprised of 9 items each consisting of three sub-variables that measure the financial, strategic, and satisfaction dimensions of performance in the context of export initiative. Measures such as export profit, sales, and sales growth are indicators of a company's financial export performance. When a company exports, it is often driven by profit motive and growth opportunities. Making profits in the export market, ensuring sales growth, and selling in large quantities help the company achieve its financial goals. However, in addition to financial goals, a company often sets strategic goals for the export initiative. The contribution of the export initiative to the company's global competitiveness, global strategic position, and global market share shows how far the company has achieved its strategic goals. As achieving strategic goals will often make a company positively competitive in the global market, long-term benefits can increase in the form of financial rewards or the ability to prevent competitive attacks. In addition, the company's satisfaction with its export initiative is an important measure of export performance. Management is more likely to support and maintain the export initiative in the event of greater perceived success and greater satisfaction from an export initiative. Satisfaction can also strengthen management's attitudes towards export and increase the tendency of the company to expand its export operations (Zou et al., 1998: 52).

Country Credit Rating and Business Export Performance

Recent unpredictable socio-political events and economic developments that have triggered each other have affected countries at the macro level and businesses at the micro level. The development and growth of a country's economy are directly proportional to the export performance of the companies operating as well as the financial activities in that country. The credit rating of any company in a country corresponds to the credit rating of that country, and

the credit ratings of the companies operating in that country cannot be higher than the credit rating of the country.

Credit rating is a system that has been developing continuously since the 19th century and aims to improve the functioning of the markets by solving the problem of asymmetric information. The globalization of capital has played an important role in the development of credit ratings. Although there are many credit rating agencies operating throughout the world today, S&P, Moody's, and Fitch are the dominant ones in the global market. These institutions provide information to investors by measuring the risk levels of countries (Kılıçaslan & Giter, 2016: 61). Credit rating of all three organizations contains two main components, namely credit rating and appearance. The credit rating of an economy is used to indicate the long-term reliability and condition of the country's economy while the credit scoring is an assessment made on the basis of short-term macroeconomic movements for the same economy. For example, while the credit rating of a country is BBB-, the agency that has determined this rating declares its opinions about the economy of the country through periodically compiled reports and announces appearances such as static, positive, or negative consisting of the risks related to the short-term macroeconomic situation (Kargı, 2014: 358). "A credit rating is a formal, independent opinion of a borrower's ability to fulfil the debt obligations. It indicates an entity's ability to pay its financial obligations. This is also referred to as "*creditworthiness*". According to John Moody, who is the founder of Moody's, a credit rating indicates creditworthiness of a government by assessing two main aspects: "*capability to pay and willingness to pay*" (Bheenick, 2005 as cited in Pirdal, 2017:109).

Credit rating is defined as "*The determination of the risk that the investor takes in the event of investment in the instruments issued by the borrower in order to provide an objective measure in line with the criteria in the international capital markets in terms of the possibility of repayment of the loans to be granted on time and in full*" (Karagöl & Mıhçıokur, 2012 as cited in Kargı, 2014: 356). Credit rating or credit scoring systems are important tools to estimate the borrower's creditworthiness and show the borrower's future status. The distinctive power of a credit rating or credit scoring system refers to its ability to distinguish two or more debtor classes (Coolen-Maturi & Coolen, 2018: 1). There are a growing number of empirical studies examining the effects of credit rating changes on capital structure decisions. Credit rating agencies have access to different information such as the business plan of the companies, capital expenditures, and the intended dividend policy not offered to the investors. In addition, bank regulations, insurance companies and broker bond investments are the main factors that determine a company's rating in the bond market. Credit ratings can help to identify financial threats and can be used to identify investment and financial policies not only at the business level, but also at the country level (Sajjad & Zakaria, 2018: 2).

Some economists have predicted the determinants of credit ratings in both advanced and emerging markets with econometric analysis. In these studies, a small number of variables explains 90 percent of the variation in the ratings (Cantor & Packer, 1995, 1996; Haque et

al., 1996, 1997; Reisen & Von Maltzan 1999; Juttner & McCarthy, 2000; and Bhatia, 2002 as cited in Elkhoury, 2008:6).

- ✓ GDP per capita,
- ✓ GDP growth,
- ✓ Inflation,
- ✓ The ratio of non-gold foreign exchange reserves to imports,
- ✓ The ratio of the current account balance to GDP,
- ✓ Default history and the level of economic development.

Rating agencies must clearly state their evaluation criteria. To this end, S&P (Standard & Poor's) Ratings direct explains that country credit rating depends on both the willingness and capacity to pay, and that the main factors affecting the rating process are as follows (Dang & Partington, 2020: 3):

- ✓ Corporate and managerial effectiveness and security risks reflected in the corporate and managerial effectiveness score.
- ✓ Economic structure and growth forecasts stated in the economic score.
- ✓ External liquidity and international investment position stated in the foreign relations score.
- ✓ Financial performance, flexibility and debt burden stated in the financial score.
- ✓ Monetary flexibility specified in the monetary score.

The symbols used by credit rating agencies that give credit ratings to countries and businesses are similar in content. Each letter or symbol created by any rating agency about a country and a business represents about the same meaning as that of other agencies. Country credit ratings enable assessment of the probability of default in government debt. Credit rating agencies state that they consider many economic and political factors and make qualitative and quantitative evaluations while rating the country's credit rating. A change in sovereign credit rating score can reveal new information about a country and affect its investments in holding private equities (Lee, Supriza & Wu, 2016: 99). Especially the declarations on the decrease in the credit rating cause an increase in the outflow of foreign liquidity from the country. The lowering of the credit rating score causes international banks to refuse to approve export credit guarantees provided to businesses by the national banks operating in these countries, which negatively affects the country's international trade and exports (Badinger & Url, 2013: 1117).

A summary of the general rating system used by credit rating agencies and the credit rating system of the three major credit rating agencies (S&P, Moody's, and Fitch) grading system together with their symbols and meanings are shown in Table 4.

Table 4

Grading System Used by Credit Rating Agencies

S&P	Fitch	Moody's	Rating Description	Level	Risk Weight
AAA	AAA	Aaa	**Highest Credit Rating**	*Investable Level*	0%
AA+	AA+	Aa1	**High Credit Rate**		
AA	AA	Aa2			
AA-	AA-	Aa3			
A+	A+	A1	**Good Credit Rating**		20%
A	A	A2			
A-	A-	A3			
BBB+	BBB+	Baa1	**Sub-Medium Level**		50%
BBB	BBB	Baa2			
BBB-	BBB-	Baa3			
BB+	BB+	Ba1	**Disinvestable**	*Speculative Level*	100%
BB	BB	Ba2			
BB-	BB-	Ba3	**Speculative**		
B+	B+	B1	**Significantly Speculative**		
B	B	B2			
B-	B-	B3			
CCC+	CCC	Caa1	**Highly Risky**	*Too Speculative Level*	150%
CCC	CCC	Caa2			
CCC-	CCC-	Caa3			
CC	C	Ca	**Too Speculative**		
C		C			
D	DDD	D	**Does not fulfil its obligation**	*Bankruptcy Level*	200%
	DD				
	D				

Source: https://www.moodys.com , http://www.standardandpoors.com , https://www.fitchratings.com:12.04. 2018.

Haque et al. (1997) defined a country's credit rating as being frequently affected by its regional location and the types of goods it exports. Although international financial market conditions are rarely mentioned as the factors influencing a country's credit rating, it was found that an increase in international interest rates would adversely affect all develo-

ping country ratings, regardless of quality of domestic economic fundamentals (Haque et al., 1997: 13). The most important domestic economic variables influencing the credit ratings of a country were found to be non-gold foreign exchange reserves to imports ratio, the current account balance to GDP, the country's growth rate, and its inflation rate. In terms of elasticities, the largest values were often associated with non-gold foreign exchange ratio reserves to imports. In addition, the effect of inflation on credit ratings was found to be non-linear, with high-inflation countries penalized more than countries with low or moderate inflation. Moreover, a country's credit rating has often been affected by its regional location and the structure of its export such as whether it is a primarily exporter of fuel or manufactured products (Haque et al., 1996: 718).

Although there are many studies in the literature on export performance and credit rating issues, there is no study evaluating the possible effects of both subjects together. It is expected that investigating the effect of the country's credit rating on export performance will contribute to this gap.

Methodology

The study specifically deals with the effects of the credit rating scores given to Turkey by credit rating agencies on the export performance of businesses operating in the country. To achieve the aim of this study, the direction and the level of the relationship between the credit ratings assigned by the credit rating agencies to Turkey between 1993 and 2016 and the export performance of the companies in the country is explained through econometric panel data analysis. Then, a conceptual model is developed, and the validity of this model is tested through analysis using field research data. The conceptual model has also enabled the verification of the relationship validity between the ratings given by credit rating agencies and export performance.

Literature review shows that the findings of the studies on the issue reveal different results. In the study, the effect of the credit ratings given by credit rating agencies on export figures of ISO 500 companies[1] between 1993 and 2016 is explained through panel data analysis. Executives of ISO 500 businesses are asked, either in person or via e-mail, to fill in a questionnaire in order to analyse the effect of the country credit rating on the export performance of the companies both during the period that started with the upgrade of the credit rating of Turkey to investable level in 2013 and after the period that started with the lowering of the rating in 2016, which is considered significant as it enables the analysis of the issue in a two-stage process.

1 Turkey's Top 500 Industrial Enterprises.

Conceptual Model and Research Hypothesis

In order to investigate the problem statement of the research and to achieve the research objectives, a conceptual model related to the field research, which is the second part of the research, has been developed, and the data obtained from the survey method have been analysed using appropriate statistical analysis methods. Three main dimensions and nine subdimensions in the EXPERF (Export Performance Scale) developed by Zou et al. (1998:47) are used as the export performance indicators of the companies while developing the model of the research. The research model is presented in Figure 1. The secondary data obtained from the first stage of the research regarding the relationship between the export performance of ISO 500 companies and the credit rating of Turkey between 1993 and 2016 are analysed through root panel data test[2] and supported by the results of the field research.

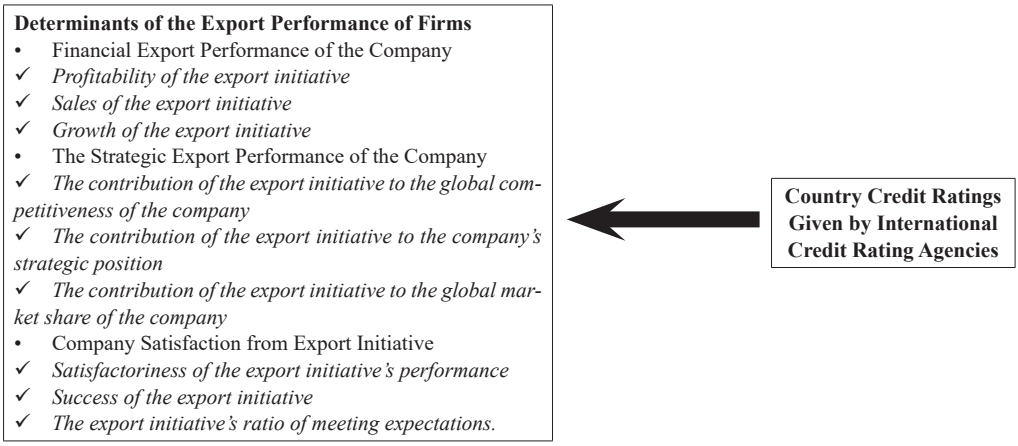

Figure 1. The Conceptual Model of the Research

2 Within the scope of the resulting variables, whether there is a significant relationship between the annual export figures of ISO 500 companies and the credit rating scores that the credit rating agencies give to Turkey is investigated through panel limit test (Autoregressive Distributed Lag-ARDL). First generation panel unit root tests can be applied in the absence of correlation between cross section units, and they consist of two groups, namely, homogeneous, and heterogeneous tests. Homogeneous tests are Levin, Lin, and Chu (LLC) (2002), Breitung (2000), and Hadri (2000) tests while heterogeneous ones are Maddala and Wu (1999), Choi (2001) & Im, Pesaran & Shin (2003) tests (as cited in Baltagi, 1995: 6-7). According to the unit root result, ARDL analysis is preferred if the variables are not stable at the same level. Accordingly, as the variables are not stationary at the same level, ARDL analysis method is used in this study. In addition, no other study in which the ARDL analysis is used as a method to examine the effect of credit rating agencies on the export performance of the companies exists in the literature. However, the ARDL limit test approach can test the existence of a cointegration relationship between series with different degrees of stability. Therefore, the relationship between the annual export figures of top ISO 500 companies in Turkey from 1993 to 2016 and the credit rating scores of Turkey in the same period have been tested using ARDL limit test approach.

In the research model, there are three dependent variables, nine factors under these variables, and an independent variable which is assumed to have an impact on these factors. The first variable in the conceptual model is seen as the determinants of companies' export performance in EXPERF scale. These determinants are dependent variables determined as EXPERF scale consisting of the factors '*the financial export performance of the company*', '*the strategic export performance of the company*' and '*the company satisfaction from export initiative'*. The company's financial export performance is composed of three sub-dimensions, which are represented by the profitability of the export initiative, sales of the export initiative, and growth of the export initiative. The strategic export performance dimensions of the company are accepted as the contribution of the export initiative to the global competitiveness of the company, the contribution of the export initiative to the company's strategic position, and the contribution of the export initiative to the global market share of the company. Finally, the satisfaction of the enterprise from the export initiative is comprised of three sub-dimensions, namely satisfactoriness of the export initiative's performance, success of the export initiative, and the export initiative's ratio of meeting expectations. (Zou, Taylor & Osland, 1998: 47). The independent variable of the research is the country credit ratings given by international credit rating agencies. Based on this conceptual model and the objectives of the research, research hypotheses are assumed to be H_1 in relation to secondary data and H_2 in relation to primary data:

H1: The credit rating of the country given by the credit rating agencies has a statistically significant impact on the export performance of the companies.

H2: There is a significant difference between the change in country credit ratings and export performance of the companies.

In the first stage of the research, panel data analysis is performed using the export figures of ISO 500 companies between 1993 and 2015 and the data obtained from websites regarding the credit ratings of Turkey given by S&P, Moody's, and Fitch during the same period (http://www.iso500.org.tr : 12.10.2017). After that, the relationship between the credit ratings of Turkey from 1993 to 2016 and the export performance of the ISO 500 companies in the same period are examined with panel border test (Autoregressive Distributed Lag-ARDL) and panel unit root to determine the stability of the variables. In the second stage of the research, a standardized questionnaire form is used as the data collection tool. The questionnaire is applied to the executives of ISO 500 companies selected through intentional (judicial) sampling method either via e-mail or face-to-face. The credit rating scores of Turkey between 1993 and 2016 are presented in Table 5.

Table 5

Improvement in Turkey's Credit Ratings between the Years 1993-2016

Date	S&P	Moody's	Fitch
1993	BBB (negative)	Baa1	-
1994	B+ (stable)	Ba3	B
1995	B+ (stable)	Ba3	BB-
1996	B (stable)	Ba3	B+
1997	B (stable)	B1	B+
1998	B (positive)	B1	B+
1999	B (positive)	B1 (positive)	B+
2000	B+ (stable)	B1 (positive)	BB-
2001	B- (stable)	B1 (negative)	B (negative)
2002	B- (stable)	B1 (negative)	B (stable)
2003	B+ (stable)	B1 (stable)	B (positive)
2004	BB- (stable)	B1 (stable)	B + (positive)
2005	BB- (stable)	Ba3 (stable)	BB – (positive)
2006	BB- (stable)	Ba3 (stable)	BB – (positive)
2007	BB- (stable)	Ba3 (stable)	BB – (stable)
2008	BB- (negative)	Ba3 (stable)	BB – (stable)
2009	BB- (stable)	Ba3 (positive)	BB+ (stable)
2010	BB (positive)	Ba2 (positive)	BB+ (stable)
2011	BB (positive)	Ba2 (positive)	BB+ (stable)
2012	BB+ (stable)	Ba1 (positive)	BBB- (stable)
2013	BB+ (stable)	Baa3 (stable)	BBB- (stable)
2014	BB + (negative)	Baa3 (negative)	BBB- (stable)
2015	BB + (negative)	Baa3 (negative)	BBB- (stable)
2016	BB (stable)	Ba1 (stable)	BBB- (negative)

Source: https://www.fitchratings.com/gws/en/sector/overview/sovereigns: 14.04.2018, https://www.moodys.com/credit-ratings/Turkey-Governmentof-credit-rating-768337 : 14.04.2018, t- https://www.standardandpoors.com/en_ US/web/guest/home: 21.07.2017.

Data Set in the Models Used in the Research

For this research, data on the annual export figures of top ISO 500 companies in Turkey from 1993 to 2016 and the credit rating scores of Turkey in the same period were collected annually. The time series of the variables used in the research have been obtained from the ISO 500 (http://www.iso500.org.tr :12.10.2017) website and the official websites of S&P, Moody's, and Fitch rating agencies. For the years in which no export figures of the companies were available, those figures were found through time-series analysis by calculating the arithmetic means of the figures in the previous and next years. A time series analysis enables us to understand the trend of change over a particular period of time (Velicer & Fava, p.2, 2003). In the context of this study, the trend of change refers to the change in the export figures of companies.

The data for the periods of several consecutive years when the export figures of some companies were not available were obtained by dividing the foreign sales (export sales) of

those companies in those years (export figure) by the general average exchange rate of the same periods. The explanation of all the variables used in the models is summarized in Table 6.

Table 6

Variables Used in the Effect of Country Credit Rating on the Export of ISO 500 Firms

Variables Used in the Analysis	Names Used in the Models	The Definition of the Variables
LNE	Export Performance (Export Sales)	ISO 500 Companies
SP	S&P	Standard & Poor's
M	M	Moody's
F	F	Fitch
1994D*	1994D*	The 1994 Economic Crisis in Turkey
2001D*	2001D*	The 2001 Economic Crisis in Turkey
2013D*	2013D*	The Year 2013 When Credit Rating Agencies Upgraded the County's Credit Rating to Investable Level for the First Time

** Dummy variables*

*** The table are included their symbols of the variables used in this research.*

In Table 6, in which the LLC unit root results are presented, LNE shows the export performance of ISO 500 companies while SP, M, and F refer to the credit rating agencies. While the variables LNE, SP, and M are stationary on the level, that is, I (0), the dummy variables F, 1994D, 2001D, and 2013D are stationary in their first differences, i.e. I (1). In addition, the data related to these models are discussed in the Findings section.

Panel Unit Root Test Results

E-views 9.5 beta econometric program was used for panel unit root test and limit test necessary for the analysis of the data. The findings as to the first hypothesis of the research; "*The credit rating of the country given by the rating agencies has an impact on the export performance of the enterprises*", was analysed by panel data analysis, and the data about the hypothesis are given in Table 7.

Table 7

LLC Unit Root Test Results as to the Effect of Country Credit Rating on ISO 500 Firms Exports

VARIABLES	LEVEL VALUE		1st GAP	
	LLC VALUES	PROBABILITY VALUES	LLC VALUES	PROBABILITY VALUES
LNE	8.33374	0.0000		
SP	82.1748	0.0000		
M	30.9567	0.0000		
F	61.7843	1.0000	192.372	0.0000

VARIABLES	LEVEL VALUE		1st GAP	
	LLC VALUES	PROBABILITY VALUES	LLC VALUES	PROBABILITY VALUES
1994D*	16.8706	1.0000	80.4721	0.0000
2001D*	11.6795	1.0000	100.547	0.0000
2013D*	15.4763	1.0000	111.038	0.0000

*** Dummy variables.*

*** The table are included results and their symbols of the variables used in this research.*

According to the unit root results, the variables are not stable at the same level. Therefore, ARDL test, which is one of the cointegration tests, was used to determine the long-term relationship. Four different models were decided to determine the different effects of other variables on the dependent variable, the LNE being dependent variable. Accordingly, Model 1 is as follows.

Model 1:

Dependent Variable: LNE

Independent Variable: F, M, SP

D(LNE)= −0,1699F−0,6989M+1,7364SP

When the S&P credit rating agency made a 1-unit increase in Turkey's credit rating between the years 1993 and 2016, the exports of ISO 500 companies as dependent variable went up by 1.7364%. However, the exports of ISO 500 companies as dependent variable decreased by 0.6989% when the Moody's credit rating agency made a 1-unit increase in Turkey's credit rating in the same period. Similarly, the exports of ISO 500 companies as dependent variable decreased by 0,1699% when the Fitch credit rating agency made a 1-unit increase in Turkey's credit rating in the same period. As a result of the test which was conducted to investigate the effect of Turkey's credit rating scores in the years 1994 and 2001, which were the times of great domestic economic crisis, and in 2013, when Turkey gained the investable rating for the first time, on the exports of the dependent variable ISO 500 companies, the following results were obtained.

Model 2:

Dependent Variable: LNE

Independent Variable: F, M, SP, 1994D

D(LNE)= −0,3085F−1,0785M+2,3729SP−2,05891994D

The data covers the years between 1993-2015, and 1994 is the dummy variable. When the period after the economic crisis in 1994 is examined, it is seen that a 1-unit increase that S&P credit rating agency made in Turkey's credit rating resulted in 2,373% increase in the exports

of companies as dependent variables. On the other hand, the exports of companies decreased by 1,0785% when Moody's credit rating agency made the same amount of increase in Turkey's credit rating in the same period. The 1-unit increase in Turkey's credit rating made by Fitch during the same period also caused a decline in the exports of ISO 500 companies by 0.3085%. In parallel to the period after the economic crisis in Turkey in 1994, the exports of ISO companies decreased by 2.0589% as there was a 1-unit increase in the index values of Fitch, Moody's, and S&P international credit rating agencies.

Model 3:

Dependent Variable: LNE

Independent Variable: F, M, SP, 2001D

D(LNE) = 0,1118F + 0,1164M + 0,068SP + 0,19542001D

When the period after the economic crisis in 2001 is examined, it is seen that a 1-unit increase that S&P credit rating agency made in Turkey's credit rating resulted in 0,068% increase in the exports of companies as dependent variables. Similarly, a 0,1164%-increase is observed in the exports ISO 500 companies following the 1-unit increase in Turkey's credit rating score made by Moody's credit rating agency in the same period. Likewise, a 1-unit increase in Turkey's credit rating score by Fitch also resulted in an increase by 0,1118% in the export rates of ISO 500 companies during the same period. In parallel to the period after the economic crisis in Turkey in 2001, a 1-unit increase in the index values of Fitch, Moody's, and S&P international credit rating agencies resulted in an increase by 0,1954% in the exports of ISO companies.

Model 4:

Dependent Variable: LNE

Independent Variable: F, M, SP, 2013D

D(LNE) = −0,3693F + 1,4286M − 0.4736SP + 0.74782013D

When the period between 2013, in which Turkey was given the investable credit rating score for the first time, and 2016, in which Turkey's credit rating was lowered, is examined, it is seen that a 1-unit increase made in Turkey's credit rating by S&P credit rating agency led to 0,4736% increase in the exports of companies as dependent variables. During the same period, the exports of ISO 500 companies as dependent variables went up by 1,4286% following a 1-unit increase in Turkey's credit rating score made by Moody's credit rating agency that made the same amount of increase in Turkey's credit rating in the same period. However, the 1-unit increase in Turkey's credit rating made by Fitch during the same period caused a decline in the exports of ISO 500 companies by 0.3693%. In parallel to the investable credit

rating score given to Turkey in 2013, an increase of 0,7478% in the exports of ISO companies was observed as there was a 1-unit increase in the index values of Fitch, Moody's, and S&P international credit rating agencies.

Especially when the periods after economic crisis in Turkey are evaluated, it is seen that a 1-unit increase the international credit rating agencies made in Turkey's credit rating score resulted in a decrease in the exports of ISO 500 companies in the post-1994 economic crisis, which is the result of Model-2, while it led to an increase in the exports of ISO 500 companies in the post-2001 economic crisis and post-2013 period, which were the results of Model-2 and Model-3.

Table 8

Model Results as to the Effect of the Country Credit Rating on the Export of ISO 500 Firms

MODELS	S&P	MOODY'S	FITCH	1994D, 2001D, 2013D
Model1 (1993-2016)	**Increase**	**Decrease**	**Decrease**	**-**
Model2 (After 1994)	**Increase**	**Decrease**	**Decrease**	**Decrease**
Model3 (After 2001)	**Increase**	**Increase**	**Increase**	**Increase**
Model4 (After 2013)	**Decrease**	**Increase**	**Decrease**	**Increase**

According to Table 8, when only S&P made a one-unit increase in Turkey's credit rating score except for the period after 2013, the exports of the ISO 500 companies went up from 1993 to 2016, which is Model 1, during the period after 1994, which is Model 2, and in the whole period following 2001, which is Model 3. The exports of ISO 500 enterprises increased. Taking this finding into consideration, it is understood that H1 hypothesis is not rejected. As a result, it is understood that the credit rating scores of countries given by the credit rating agencies have a significant effect on the export performance of companies.

Field Research

The most important goal in testing the data collection method, the data collection tool, the selection of the sample and the analysis techniques, and the research hypotheses is to support the panel data analysis results with the results of the field research.

Data Collection Method

The data in the first hypothesis of the research is obtained through the information published on the official website of the Istanbul Chamber of Industry (http://www.iso500.org.tr :12.10.2017), the information obtained from the official websites of the researched companies, and the credit rating scores of Turkey given by the credit rating agencies, namely S&P, Moody's, and Fitch, between 1993 and 2016.

Survey method is used in the second hypothesis developed to support the results obtained from the panel data analysis with primary data. The dependency relationship between the data obtained from the EXPERF scale and the export performance of the companies during

the period in which the country's credit rating was increased (2013) and decreased (2016) is examined. The questionnaire method involves the recording of questions asked verbally or in writing to the respondents by the interviewer or the respondent in person. Data is collected with the EXPERF scale by surveyors or the researcher via e-mail or face-to-face through the questionnaire by making appointments in advance with the factory managers, marketing, foreign trade and export managers or their assistants between 1 February 2018 and 1 August 2018.

Development of the Data Collection Tool

EXPERF scale is used in the questionnaire items prepared for this study. The EXPERF scale used in companies' export performance measurement is given in Table 9 (Zou et al., 1998: 45-46).

Table 9

The Variables of the Companies' Export Performance (EXPERF)

Dimensions	Export Performance (EXPERF) Variables
Financial Export Performance	**(Per1)** Profitability of the Export Venture
	(Per2) Sales of the Export Venture
	(Per3) Growth of the Export Venture
Strategic Export Performance	**(Per4)** Contribution of the Export Venture to the Global Competitiveness of the Company Competitiveness
	(Per5) The Contribution of the Export Venture to the Company's Strategic Position
	(Per6) The Contribution of the Export Venture to the Company's Global Market Share
Degree of Satisfaction from the Venture	**(Per7)** The Satisfaction of the Export Venture
	(Per8) The Success of the Export Venture
	(Per9) The Rate of Export Venture's Meeting the Expectations

Source: Zou, Taylor & Osland, (1998: 45-46).

The statements uttered by the managers of the ISO 500 companies, which are the main variables of the research, about the country credit ratings and companies' export performance were constructed with 5-Likert rating. The questionnaire was developed on the basis of the relevant literature. A pre-test was conducted to eliminate potential problems in the content of the questions so that the respondents could comprehend them clearly and correctly. The participants in the pre-test were academicians in the field and foreign trade and export managers of ISO 500-certified export trading companies which operated in Niğde. At this stage, the questionnaire was finalized by taking into consideration the recommendations and criticisms from academicians in practice and business marketing, foreign trade, and export managers in practice.

The Population and the Sampling

The population of the research is comprised of ISO 500 companies. In the research, in which the deliberate (judicial) sampling method was applied, 312 company managers res-

ponded the questionnaire. The minimum sample number was calculated using the sample formula whose main mass number is known (Balcı, 2006: 95):

$$n = \frac{\frac{t^2\,(PQ)}{d^2}}{1+\frac{1}{N}.\frac{t^2\,(PQ)}{d^2}}$$

$$n = \frac{\frac{1{,}96^2\,(,25)}{0{,}05^2}}{1+\frac{1}{500}.\frac{1{,}96^2\,(,25)}{0{,}05^2}} = 217$$

If a sample is to represent the whole population, it is important for the response rate to be as high as possible, and a response rate over about 70% is generally acceptable (Johnson & Christensen, 2014: 219). Since 306 out of 312 questionnaires were filled in completely, the remaining six questionnaires were excluded from the study.

Findings

The information about the different features of the ISO 500 companies published on the official website of the Istanbul Chamber of Industry (http://www.iso500.org.tr : 12.10.2017), data obtained from the official websites of the companies examined and the introductory business information obtained after the analysis of the questions aimed at determining the different characteristics of the companies or factories are presented in Table 10.

As can be seen in Table 10, 71.9% of the enterprises or factories that respond to the questionnaire forms have 251 and above employees. 21.9% and 6.2% of them have between 51-250 and less than 50 employees, respectively. This may be because ISO 500 companies can be determined not only by the number of employees but also by criteria such as turnover size.

Table 10

Introductory Information on Companies Participating in the Research

Company Characteristics		**n**	**Number of Companies**	**%**
Number of Employees	Less than 50 (Small)	**306**	19	6.2
	Between 51 and 250 (Medium-sized)		67	21.9
	251 and over (Big)		220	71.9
Year of Activity	1–10 years	**306**	31	10.1
	11–20 years		43	14.1
	21–30 years		81	26.5
	31 and over		151	49.3

Company Characteristics		n	Number of Companies	%
Business Sector	Food and Beverage	306	47	15.4
	Textile		46	15.0
	Automotive		34	11.1
	Iron Steel		29	9.5
	Mining-Metal		19	6.2
	Chemistry-Petroleum		17	5.6
	Construction and Construction Materials		17	5.6
	Agriculture-Fertilizer		16	5.2
	Cement		16	5.2
	White Goods - Electronic- Electrical Household Appliances		16	5.2
	Furniture		15	4.9
	Energy		11	3.6
	Plastic		11	3.6
	Packaging		7	2.3
	Health-Pharmaceutical		5	1.6
Number of Importing Countries	Between 1 and 25	306	111	36.3
	Between 26 and 50		81	26.5
	Between 51 and 100		91	29.7
	Between 101 and 150		19	6.2
	151 and over		4	1.3

When the activity years of the enterprises are analysed, it can be seen that almost half of the enterprises (49.3%) participating in the research are 31 years old and over. As 90% of the companies participating in the research have been operating in a period of more than 10 years, the managers of those companies are thought to have market experience and, as a result, to be competent in their responses to the research topic. As for the distribution of the companies participating in the research by sectors, it is seen that approximately 15%, 15%, and 11% of them have been operating in food and beverage sectors, textile sector and automotive sector, respectively. The percentage weight of enterprises operating in other sectors is below 10. It is seen that the number of companies that export goods to more than 101 countries is really low (7.5%).

The Determination of Test Statistics

In this research, five-point Likert rating was used to scale the variables. In line with the purpose and design of the research, the hypotheses were analysed through descriptive analysis, Exploratory Factor Analysis (EFA) and related sample tests. For the related sample tests, the distribution of the data between 2013 and 2016 was examined, and whether the data showed normal distribution was analysed with Kolmogorov-Smirnov and Shapiro-Wilk tests. As a result of the Kolmogorov-Smirnov (2013 and 2016 $p<0.05$) and Shapiro-Wilk (2013 and 2016 $p<0.05$) tests, it was concluded that the data did not show normal distribution. As a

result, the Wilcoxon Signed Ranks Test was conducted for the difference between 2013 data and 2016 data. SPSS 23 package program was used in descriptive statistics of the research and in the execution of statistical methods related to the difference of the data.

Analysis and Findings

In this section, the findings obtained by analysing the data collected from the field with statistical methods are presented in order to reach more detailed information and to test the research hypotheses.

The Validity and Reliability of the Data Collection Tool

Content validity of the research has been tested in several steps. Firstly, the related literature has been thoroughly reviewed, and great care has been taken to use scales that have already been validated. EXPERF scale is a scale developed and tested for validity and reliability by Zou et al. (1998). In order to eliminate the translation errors that may occur during the translation of the EXPERF scale into Turkish, the questions were evaluated by academicians who are language experts. The results of the factor analysis (Principal Component) and reliability analysis are given in Table 11.

Table 11

Exploratory Factor Analysis Results of the EXPERF Scale between 2013 and 2016

	Analysis as to the 2013 Data			Analysis as to the 2016 Data		
Item No	**Factor Covariance**	**Factor-1 Loading**	**Cronbach Alpha**	**Factor Covariance**	**Factor-1 Loading**	**Cronbach Alpha**
Per1	.582	.848		.811	.931	
Per2	.559	.840		.831	.929	
Per3	.700	.837		.823	.928	
Per4	.683	.826		.862	.924	
Per5	.663	.817	.935	.849	.921	.977
Per6	.667	.814		.862	.915	
Per7	.660	.813		.854	.911	
Per8	.719	.763		.838	.907	
Per9	.706	.748		.866	.900	

Table 11 shows the factor analysis results of the EXPERF scale and alpha coefficients. As a result of the factor analysis performed on the EXPERF scale, there are no items that are not included in any factor or whose factor loading values are under 40. Although the EXPERF scale is referred to in three dimensions (financial export performance dimension, strategic export performance dimension, and the size of satisfaction with the export initiative) in the literature, the results of the factor analysis conducted for this sampling show that the scale has

a single-factor structure in both 2013 and 2016 data. According to 2013 data, 65.99% of the total variance related to the scale is explained in the single-factor structure while, according to 2016 data, the single-factor structure of the scale explains 84.39% of the total variance. The reliability of the scale was tested through Cronbach Alpha, and the Cronbach Alpha coefficients for 2013 data and 2016 data were found as ,935 and ,977 respectively, which reveals that the scale is highly reliable.

Descriptive Statistics Concerning the Research

Descriptive statistics regarding export performance variables are given in Table 12. When the descriptive statistics about the variables are examined in Table 12, it is seen that the arithmetic averages for 2013 are higher than those of 2016. ISO 500 business managers have perceived the 2013 export performance more positively, when the country's credit rating was increased, compared to 2016 export performance, when the country's credit rating was lowered.

Table 12

Descriptive Statistics: EXPERF Scale

Items	**n**	**2013 Data**		**2016 Data**	
			s		**s**
Per1		3.74	.749	3.08	1.055
Per2		3.80	.711	3.09	1.105
Per3		3.83	.730	3.09	1.131
Per4		3.65	.837	2.99	1.091
Per5	306	3.76	.822	3.01	1.128
Per6		3.71	.840	3.02	1.106
Per7		3.73	.843	2.93	1.149
Per8		3.75	.863	2.92	1.193
Per9		3.76	.869	2.97	1.275
Total		**3.74**	**.807**	**3.01**	**1.137**

Field Research Hypothesis Test Results

The findings regarding the second hypothesis of the research, which claims that there is a significant difference between the change in the country credit rating and the export performance of the enterprises, are given in Table 13.

Table 13

Wilcoxon Signed Ranks Test for the Difference between the Change in the Country Credit Rating and Export Performance of Companies

		n	Means of the Orders	Sum of Orders	Wilcoxon	
					z	p
2016 - 2013	Negative Order	219[a]	150.01	32853.00	-10.358[b]	.000
	Positive Order	57[b]	94.26	5373.00		
	Equal	30[c]				
	Total	306				

a. 2016 < 2013
b. 2016 > 2013
c. 2016 = 2013

According to the figures in Table 13, export performance of enterprises differs significantly between the increase in the country credit rating in 2013 and the decrease in the country credit rating in 2016 ($z=10,358$; $p<0.05$). When the export performance of the companies in 2013 and 2016 is analysed in order to examine the source of the difference (the means of order in 2013 is 150.01; the means of order in 2016 is 94.26), the difference is seen to be in favour of 2013. The arithmetic means obtained from the scale (year 2013 =3,75; year 2016 =3,01) also show similar findings. According to this finding, increasing the credit rating of the country also increases the export performance. This finding collected from the field supports the findings obtained by panel data analysis. According to this finding, the H_2 hypothesis was not rejected. There exists a significant difference between the change of the country credit rating and the export performance of the enterprises.

Results

The statements of the international credit rating agencies about countries and the credit ratings they give to the countries not only trigger the investment in those countries by large funds, foreign investors, or capital owners, but also have an impact on export performance of the companies in those countries. In the first stage of the investigation of the effects of the credit ratings of the international credit rating agencies on the business performance, the annual export figures of ISO 500 companies that perform almost half of the annual exports of the country between the years 1993 and 2016 and credit rating scores that Turkey was given by credit rating agencies during the same period are analysed through panel root test analysis. In the second stage, the results of the panel data analysis were supported by the data collected from the field using the questionnaire which was developed using the EXPERF scale and applied to the managers of ISO 500 companies who were determined by the intentional sampling method.

According to the Panel Root Test Results

✓ It is found that when only the S&P credit rating agency increased the country's credit rating by one unit between 1993 and 2013, this was accompanied by a positive effect, resulting in an increase in the exports of the dependent-variable ISO 500 firms. On the other hand, a one-unit increase in the credit rating scores given by Moody's and Fitch credit rating agencies in different years within the same period of time led to a decrease in the exports of ISO 500 firms. The differences between the effects of the credit ratings given by different credit rating agencies may result from the conjectural changes in different years.

✓ It is determined that when the S&P and Fitch credit rating agencies increased the country's credit rating by one unit between 2013 and 2016, the exports of the dependent variable ISO 500 firms went down while a one-unit increase in the credit rating scores given by Moody's credit rating agency caused an increase in the exports of ISO 500 firms.

✓ In parallel with the investable level score given to Turkey in 2013, a one unit increase in the index value of the Fitch, Moody's, and S&P credit rating agencies also raised the exports of ISO 500 companies by 0.7478%.

✓ When only the S&P credit rating agency increased the country's credit rating by one unit after the 1994 economic crisis, an increase in the exports of the dependent variable ISO 500 firms was observed. On the other hand, the one-unit increase made by Moody's and Fitch credit rating agencies in the credit rating score of Turkey in the same period caused a decrease in the exports of the dependent variable ISO 500 firms. In parallel with the period after the 1994 economic crisis in Turkey, a one unit increase in the index values of the Fitch, Moody's, and S&P credit rating agencies accompanied with a decline in the exports of ISO 500 companies. The differences between the effects of the credit ratings given by different credit rating agencies may result from the conjectural changes in different years.

✓ In the period after the 2001 economic crisis experienced in Turkey, the credit rating scores determined by all three credit rating agencies (Fitch, Moody's, and S&P) had a positive effect on the exports of ISO 500 firms.

When the results obtained in 2001 and those between 1993 and 2016 are analysed, it is seen that the results appear to be compatible with S&P, but not with Moody's and Fitch. Increasing the credit rating of the country affects the export performance of the enterprises, and the H_1 hypothesis is supported. The direction of this effect may be downwards or upwards, which shows that credit rating agencies have a decisive role in the export performance of businesses.

It is supported by the findings that country credit ratings given by credit rating agencies are among the factors which affect the export performance of companies positively or ne-

gatively, are out of the controllable inner factors and are among the uncontrollable external factors in the export performance of companies. In order to be successful in their export performance, businesses must constantly follow the credit rating scores of their countries given by the credit rating agencies whose decisions they cannot control. From this point of view, business managers, who we assume are rational, should add the credit rating of the country that credit rating agencies give to the factors that affect the export performance of their companies. Failure by business executives to take the country credit rating given by credit rating agencies into account may result in lower business export performance or less profit.

According to the results of the analysis by which the opinions of the ISO 500 business managers were investigated with the EXPERF scale regarding how the business export performance was affected in 2013, the year when the credit rating score of the country was at investable level, and in 2016, when the country's credit rating was lowered, the export performance of the companies differs significantly. According to this finding, the H_2 hypothesis is supported. In order to examine the source of the difference, the export performance of the firms in 2013 and 2016 was analysed, and it was determined that the difference resulted from the fact that the difference was higher in 2013, when the country's credit rating was increased.

Recommendations to Business Executives or Policy Implication

Business executives should closely follow the country credit rating scores given by the credit rating agencies in directing their export performance, especially in times of crisis when the rating agencies make aggressive decisions. In such cases, they can also consider the country's credit rating score when they make the right decision in their preferences for growth and downsizing while establishing their export strategies considering the fact that their export performance will also go down during the periods rating agencies decrease the country's credit rating score. According to the results of the field research, the increase in the credit rating of the country means an increase in the export performance of companies. Also, a decline in the credit rating of the country will negatively affect the export performance of the enterprises. Business executives should take this into account in their strategic decisions during these periods, and companies should be able to manage their export performance and export strategies according to the credit rating score of their country. The country credit rating scores given by credit rating agencies act as an economic signal for businesses. Therefore, businesses will be able to make effective decisions, especially if they follow these credit rating scores to protect themselves or turn the crisis into an opportunity specifically in times of global crisis.

In this context, it may be recommended that the marketing management or export departments of ISO 500 companies that focus on export activities should establish a separate department that can perform detailed data analysis on the export performance on sector basis, or they should offer support from the financial department or other relevant departments.

Recommendations for Further Studies

In the research, the impact of the country credit rating given by credit rating agencies on the export performance of the enterprises has been tested, and the impact of the export performance of the enterprises on the country credit rating given by the credit rating agencies may be investigated in the future. There are many publications related to export performance of businesses. Therefore, it can be asserted that conducting a meta-analysis study related to the studies conducted in this context may be effective in reaching a more detailed result. In the research model developed for this research, the country's credit rating variable given by credit rating agencies was emphasized in addition to the variables that affect the export performance of companies. A more complex model with a higher number of structures can be developed by adding other variables to this model that are thought to have an impact on performance and the effects of other variables that have an intermediary effect between the country credit rating score and business export performance . In this study, the relation between countries' credit rating scores and the business export performance has been tested, and the impact of a country's credit rating score on the performance of importing enterprises can be investigated in future studies. Finally, as with all empirical studies, repeating the same research in a future period may also be important in supporting the existing results or monitoring a different result.

Limitations of the Study

The research is limited to:

- ✓ 306 business executives selected by intentional (judicial) sampling from ISO 500 companies in 2016,
- ✓ Data on annual export figures of the ISO 500 companies between 1993 and 2016,
- ✓ Credit rating scores Turkey was given by the S&P, Moody's, Fitch ratings agencies between the years 1993-2016.

Peer-review: Externally peer-reviewed.
Author Contributions: Conception/Design of study: R.İ., E.G.; Data Acquisition: R.İ., E.G.; Data Analysis/Interpretation: R.İ., E.G.; Drafting Manuscript: R.İ., E.G.; Critical Revision of Manuscript: R.İ., E.G.; Final Approval and Accountability: R.İ., E.G.
Conflict of Interest: The authors have no conflict of interest to declare.
Grant Support: The authors declared that this study has received no financial support.

References

Aaby, N.E. & Slater, F. S. (1989). Management influences on export performance: A Review of the empirical literature 1978-88. *International Marketing Review,* 6(4), 7-26.

Badinger, H. & Url, T. (2013). Export credit guarantees and export performance: Evidence from Austrian firm level data. *The World Economy.* 36(9), 1115-1130.

Balcı, A. (2006). *Sosyal bilimlerde araştırma: Yöntem, teknik ve ilkeler*. Ankara, Turkey: Pegem Akademi Yayıncılık.

Baltagi, B. H. (1995). *Econometric analysis of panel data*, New York: John Wiley and Sons.

Beleska-Spasova, E. (2014). Determinants and measures of export performance–comprehensive literature review. *Journal of Contemporary Economic and Business Issues*, 1(1), 63-74.

Chen, J., Carlos, M.P., Sousa & He, X. (2016). The determinants of export performance: a review of the literature 2006-2014. *International Marketing Review,* 33(5), 626-670.

Coolen-Maturi, T. & Coolen, F., P., A. (2018). Nonparametric predictive inference for the validation of credit rating systems. *Journal of the Royal Statistical Society: Series A (Statistics in Society),*1-17.

Cavusgil, S.T. & Zou S. (1994). Marketing strategy-performance relationship: An Investigation of the empirical link in export market ventures. *Journal of Marketing*, 58 (1), 1-21.

Dang, H. & Partington, G. (2020). Sovereign ratings and national culture. *Pacific-Basin Finance Journal,* 60, 1-18.

Das, M. (1994). Successful and unsuccessful exporters from developing countries some preliminary findings. *European Journal of Marketing,* 28(12),19-33.

Elkhoury, M. (2008). Credit rating agencies and their potential impact on developing countries. UNCTAD/ OSG/DP/2008/1, No.186.

Gertner, R. K., Gertner D. & Guthery, D. (2007). The Implications of export performance measurement for the significance of the determinants of export performance. *Journal of Global Marketing,* 20(1), 21-38.

Grandinetti, R. & Mason M.C. (2012). Internationalization modes other than exporting the missing determinant of export performance. *European Business Review,* 24(3), 236-254.

Gray, J. B., Matear, S. M. & Matheson, P. K. (2000). Improving the performance of hospitality firms. *International Journal of Contemporary Hospitality Management*, 12(3), 149-155.

Haque N. U., Mathieson, D. & Mark, N. (1997). Rating the raters of country creditworthiness, *Finance & Development*, IMF, March, 10-13.

Haque, N. U., Kumar M. S. & Mark, N. and Mathieson, D. J. (1996). The Economic content of indicators of developing country creditworthiness, *IMF, Staff Papers*, 43(4), 688-724.

Hasaballah, A.H.A, Genc, Ö.F., Mohamad, O. B. & Ahmed, Z. U. (2019). How do relational variables affect export performance? Evidence from Malaysian exporters. *Asia Pacific Journal of Marketing and Logistics,* 31(1), 128-156.

Ibrahim, E., S. & Ogunyemi, Y. (2012). The effect of linkages and information sharing on supply chain and export performance: An empirical study of Egyptian textile manufacturers. *Journal of Manufacturing Technology Management*, 23(4), 441-463.

Johnson, B. & Christensen, L. (2014). *Educational research (quantitative, qualitative, and mixed approaches* (4th Edition), (Çev. Ed. S. B. Demir). Ankara: Eğiten Kitap.

Kahveci, E. (2013). İhracat performansı ölçütleri ve ihracat performansını etkileyen faktörler, *Verimlilik Dergisi*, Sayı: 1, 43-74.

Kargı, B. (2014). Uluslararası kredi derecelendirme kuruluşları ve Türkiye'nin kredi notu üzerine bir inceleme (1998-2013). *International Journal of Social Science*, 24(Spring), 351-370.

Katsikeas, S. C., Piercy, N. F. & Ioannidis, C. (1996). Determinants of export performance in a European context. *European Journal of Marketing,* 30(6), 6-35.

Kılıçaslan, H. & Giter M., S. (2016). Kredi derecelendirme ve ortaya çıkan sorunlar. *Maliye Araştırmaları Dergisi,* 2(1),61-81.

Lages, F., L. & Montgomery, D., B. (2004). Export performance as an antecedent of export commitment and marketing strategy adaptation: Evidence from small and medium-sized exporters. *European Journal of Marketing*, 38(9/10), 1186-1214.

Lee, K., H., Sapriza, H. & Wu, Y. (2016). Sovereign debt ratings and stock liquidity around the World. *Journal of Banking & Finance*, 73, 99-112.

Madsen, T.K. (1989). Successful export marketing management: Some empirical evidence. *International Marketing Review,* 6(4), 41-57.

Pirdal, B. (2017). A Comparative analysis of sovereign credit rating methods and credit default swaps. *AİBÜ Sosyal Bilimler Enstitüsü Dergisi,* 17(4), 107-124.

Rekarti E., Doktoralina, C., M. & Saluy, A., B. (2018). Development model of marketing capabilities and export performance of SMEs: A Proposed Study, *European journal of Business and Management*, 10(22), 107-114.

Rosson, P. J. & Ford, I. D. (1982). Manufacturer-overseas distributor relations and export performance. *Journal of International Business Studies*, 13(2), 57-72.

Sajjad, F. & Zakaria, M. (2018). Credit rating as a mechanism for capital structure optimization: empirical evidence from panel data analysis. *International Journal of Financial Studies, 6(13),*1-14.

Sousa, Carlos, M., P., Martínez-López F., J. & Filipe C. (2008). The determinants of export performance: A review of the research in the literature between 1998 and 2005. *International Journal of Management Reviews,* 10(4), 343-374.

Ural, T. (2009). The effects of relationship quality on export performance. A classification of small and medium-sized Turkish exporting firms operating in single export-market ventures. *European Journal of Marketing,* 43(1/2), 139-168.

Velicer, W. F., & Fava, J. L. (2003). Time Series Analysis. In J. Schinka & W. F. Velicer (Eds.), Research Methods in Psychology (581-606). Volume 2, Handbook of Psychology (I. B. Weiner, Editor-in-Chief.). New York: John Wiley & Sons

Zou, S. & Stan, S. (1998). The determinants of export performance: a review of the empirical literature between 1987 and 1997. *International Marketing Review*, 15(5), 333-356.

Zou, S., Taylor, C., R. & Osland, G., E. (1998). The EXPERF Scale: A Cross National Generalized Export Performance Measure. *Journal of International Marketing,* 6(3), 37-58.

https://www.fitchratings.com /gws/en/sector/overview/sovereigns, e.t.: 14.04.2018.

http://www.iso500.org.tr is, Access Date: 12.10.2017, http://www.standardandpoors.com, https://www.moodys.com, https://www.fitchratings.com, et: 21.07.2017

https://www.moodys.com/credit-ratings/Turkey-Governmentof-credit-rating-768337, Access date: 14.04.2018.

https://www.standardandpoors.com/en_US/web/guest/home, Access date: 21.07.2017.

http://www.standardandpoors.com/ratings/en/us?rpqSearch=NO&pageNav=No&searchText=turkey&searchField=Entity, Access date: 14.04.2018.