“A Structural Analysis of the Determinants of Export Performance: Evidence from Turkey”

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A Structural Analysis of the Determinants of Export Performance: Evidence from Turkey

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Abstract

The aim of the paper is to investigate the determinants of firm's export performance. For this reason, a proposed model was developed based on the export performance literature. To test the model with LISREL's structural equation modeling techniques data from 160 Turkish industrial firms were used. The results of the test showed us that the environmental and managerial factors and export marketing strategies had a substantial impact on the firm export performance as measured by export intensity and expectations materialization. Further, this study maintained that firm's demographic characteristics not seem to be an important determinant of export performance.

Key words: Export performance, structural equation modeling, LISREL.

Introduction and Background

The expansion of global economy concept and easement of intercommunications are converting the world into a large market for every firm of every country. In international markets where competition is increasing, the requirements for success are to identify the factors effecting exports and to take corrective actions. In national economies, significance of rising of export sales volume is well acknowledged; because it slims into foreign trade gap, increases employment and production and so determines development pace. At the firm level, the principal object is not only to increase export sales but also to export efficiently and to have the firm to achieve financial and strategic targets. The national economy and firm goals are sometimes contradict with each other. For example, firms may not want to export their products that could be sold at high price in domestic market.

Although export performance has been the subject of sizeable empirical research, the homogeneity on neither the determinants of export performance nor the performance measures has been achieved. There are too many and different explanatory variables that have been advanced in the literature as determinants of export performance. Aaby and Slater (1989); Leonidou, *et al*., (1998) and Zou and Stan (1998) grouped the explanatory variables as external and internal to firms. Whereas managerial and firm characteristics are internal factors; industry, domestic and foreign market characteristics are considered as factors external to firms. Zou and Stan (1998) also classified the external factors into the socio-cultural or political environment. Louter *et al*., (1991) grouped export performance determinants into three categories: company, attitude and strategy characteristics. Holzmuller and Kasper (1990) put forward that exporting determinants could be grouped into culture, business and manager characteristics. Miesenböck (1988) arranged the variables influencing export performance in five main groups: managerial, organizational, environmental, targeting and marketing mix variables.

In the international literature, the relationships between firm size, age of firm and export performance are not clear. By Bilkey and Tesar (1977) and Czinkota and Johnston (1983), export performance has not been found to be associated with these characteristics. However, in some studies, larger and older firms displayed higher export performance (e.g. for firm size, Bonaccorsi, 1992; Kaynak and Kuan, 1993; Aaby and Slater, 1989; Nakos *et al*., 1998; Cavusgil and Naor, 1987; Dean, *et al*., 2000 and for firm age, Cavusgil, 1984; Cooper and Kleinschimidt, 1985; Douglas and Craig, 1989; Aaby and Slater, 1989; Ursic and Czinkota, 1984; Dominguez and Sequeira, 1993).

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Many researchers claimed that a firm's export experience (export age) improved its export performance through the enhanced ability to solve export problems and exploit export opportunities (Dominguez and Sequeira, 1993; Seringhaus, 1988; Dean *et al*., 2000). Contrarily, some researchers stated that there was negative relationship between export experience and performance because the less experienced firms have greater pressures concerning the achievement of higher export performance (Cooper and Kleinschimidt, 1985; Ursic and Czinkota, 1984).

According to Jain and Tucker (1995) and Lee and Yang (1990), the management's particular orientation may impact the organization's export performance. One of the important factors determining the firm's export success is the level of management commitment (Cavusgil and Kirpalani, 1993; Cavusgil and Nevin, 1981; Zou and Cavusgil 1996, Madsen, 1989). Koh (1991) cited export performance determinants such as manager's motivation, level of effort, manager education, extent and frequency of market research and manager's perception of product uniqueness. Literature reviews by Aaby and Slater (1989) and Louter *et al*. (1991) reported the importance of persistence and commitment for export success. Dichtl, *et al*. (1990) concluded that the export market orientation of decision makers to export is an important determinant of export performance by doing comparative studies for samples from Germany, Finland, Japan, South Africa and South Korea. Manager education level and general management skills were identified as export performance determinants (Axinn, 1988; Bilkey, 1978).

It is clear that the environmental features act the management decision to introduce, develop and maintain exporting activities. The environment may weaken the effectiveness and competitiveness of firm's all activities. The complexity and dynamism of export environment probably influence export operations as a result of different customer preferences, varying national and local laws, differences in reliability of transportation and communication systems and domestic competitive advantages/disadvantages (Raven, *et al*., 1994). By Cateora (1996), the environment was arranged in two groups as socio-cultural or political environment. Also, the relationship between these dimensions of environment was advanced to be negative, because they may represent entry barriers to new markets. Adams and Hall (1993) found that country specific factors affected export performance, while personal factors were relatively more important. Zou and Cavusgil (1996) point out that other factors apart from the external environment have an impact on strategy and performance in global setting and therefore an understanding of the impact of external factors should be combined with an understanding of internal organizational characteristics. The very little compared with external environment research were done that examines the relationship between domestic environmental factors and export performance. For example, Beamish (1993) and Cavusgil and Zou (1994) founded negative relationship between domestic environment and export performance. According to Bourgeois (1980), the environment can be conceptualized as general and task environment.

In export marketing strategies, it can be said that three types of generic strategies exist. These are differentiation, low cost and focus strategy. Differentiation strategies can be expressed as uniqueness according to one or more business dimension such as new product, advertising, brand image or marketing innovations. Low cost strategies mean to keep costs down. Improving operating efficiency and product quality can succeed this. The focus strategy involves using either a differentiation or a low cost strategy with respect to a narrow market segment (Parker and Helms, 1992). Dess and Davis (1984) do not take focus strategy into consideration, because it is a combination of the other two strategy types. The impact of export marketing strategy on export performance is significant (Dean *et al*., 2000; Louter *et al*., 1991; Dominguez and Sequeira, 1993; Amine and Cavusgil, 1986). Aaby and Slater (1989), Bilkey (1978) and Louter *et al*. (1991) reported that the efficiency and reliability of distribution channels act export performance positively. The article based on a meta analysis of thirty-six empirical studies on relationship between export marketing strategies and export performance by Leonidou *et al*. (2002) reported the following results:

- Product design and style have a significant positive effect on export performance.
- The relationship between branding and export performance is significant on industrial products, but not on costumer products.

- Packaging and labeling do not have any effect on export performance for industrial products. The influence of these variables in relation to costumer product has not been examined. Therefore, general knowledge on this subject does not exist.
- The uniqueness of export product significantly influences export performances.
- The pricing strategy is positively associated with export performance.
- Appropriateness of a particular distribution channel depends on variable foreign market conditions such as economic situation, distribution structure and competitive practices. That is to say, existence and direction of the relationship vary with export market.
- Promotion is generally related positively to export performance.

In most of research the surrogates of psychic distance was flawed (Dow, 2000). Holzmuller and Kasper (1990) stated that the concept of psychic distance could neither be generally accepted nor from an empirical point of view. Benito and Gripsrud (1990) emphasized the must of inclusion the cultural dimension while operationalising the psychical distance construct. According to Bilkey and Tesar (1977) and Gripsrud (1990), firms start by exporting to neighboring and culturally close markets and as their operations cover more distant countries as their experience grows and effects of psychic distance decline.

There are very limited empirical researches that examine the effects of e-export on export performance and emphasize that e-export might improve export performance. This may be accomplished by making it easier for firms to communicate with foreign firms and customers, decreasing the costs of international advertising, transportation and product design, by improving access to international market knowledge, conveying effective marketing methods to international commerce environment, improving entry to international markets pari passu with competitors, introducing customers to product and service design process and enabling sales without limitation of the time (Clarke, 2002; Panagariya, 2000; Moodley, 2003).

As to measure export performance, although several measures have been advocated for conceptualization and operationalization of export performance, there is not a consensus of opinion on this point. The measures of export performance are grouped into three categories representing objective (financial, non perceptual), subjective (non financial, strategic, perceptual) and composite scales. Objective measures contain sales, profit and growth measures. Export intensity, export sales, export sales growth and export profits are the most frequently used indicators (Naidu and Prasad, 1994; Diamantopoulos and Schlegelmilch, 1994; Louter *et al*., 1991; Deng, *et al*., 2003; Dhanaraj and Beamish, 2003; Lee and Yang, 1990; Piercy, 1981). Subjective measures that are derived from managerial perceptions include perceived success, satisfaction and goal achievement. The goals might be penetrating new markets, improving market share in current markets, increasing the number of export markets and export products, gaining advantages over competitors, responding to domestic competitive pressure and gaining the prestige and so (Evangelista, 1994; Jaworski and Kohli, 1993; Raven *et al*., 1994; Katsikeas *et al*., 1996; Ling-yee and Ogunmokun, 2001). Both of first two measurement approaches exhibit some drawbacks (see for details e.g. Dess and Robinson, 1984; Madsen, 1987; Shoham, 1998; Katsikeas *et al*., 2000). In order to capture all dimensions of the export performance and to abstain from deficiencies of the other two measurement methods, there is a need to construct composite measure of the first two measures. Composite scales are based on overall scores of variety of performance measures (Cavusgil and Zou, 1994; Matthyssens and Pauwels, 1996; Axinn *et al*., 1996; Diamantopoulos, 1999; Baldauf *et al*., 2000).

Research Methodology

The data used in the study were collected by the surveying method. First, exploratory factor analysis (EFA) was applied to determine factors that explain export performance scale, and then the confirmatory factor analysis (CFA) was applied to construct a measurement model. Finally Lisrel 8.2 was used to construct and test a structural equation model for export performance.

The Sample

In this study, Turkish industrial firms were used. From the yearbook of Istanbul Chamber of Industry (ISO 500 and ISO 2ND 500), a random sample of 300 private sector companies was drawn. Interviews with randomly selected exporting or marketing managers of 48 out of the 300 companies were made and asked them to fill the questionnaire, which consisted of two sections as perceptional or non-perceptional and seventeen questions. To ensure the questions could be understood correctly, the questionnaire was mailed to each of 252 the remaining company managers and 112 of the total mailings were returned as completed. A telephone survey was conducted with 16 managers who answered the questionnaire, but had a few missing answers. Finally, a response rate of 53% was achieved. Table 1 presents the firm characteristics.

Table 1

Firm Characteristics (n=160)

Employment	%	Number of countries exported to	%
Less than 200	15.6	Less than 5	5.6
201-400	25.6	6-15	31.9
401-800	26.9	16-30	30.6
801-1200	15.6	31-50	16.9
Over 1201	16.3	Over 51	15
Annual sales ($million)		Number of years in business	
Less than 30	20.6	Less than 15	9.4
31-50	20.6	16-30	30.6
51-200	46.2	31-40	30.6
201-500	8.7	41-50	15
Over 501	3.9	Over 51	14.4
Annual export sales ($million)		Number of years in exporting	
Less than 10	32.5	Less than 5	18.6
11-20	23.1	6-15	38.4
21-50	28.7	16-25	29.6
51-100	8.1	26-35	10.1
Over 101	7.6	Over 36	3.3

Variables Used in the Research and Measurement

In order to measure variables influencing export performance that would be determined by means of exploratory factor analysis, 18 measures (items) were used. 5 measures were also used to measure export performance.

Variables and Measures Influencing Export Performance

Initially, it was considered to structure factors impacting export performance around external and internal forces to the firm. This structure would change according to results of factor analysis, if it were necessary. Whereas firm characteristics and export marketing strategies were internal factors, domestic environment and foreign environment were considered as external factors. Firm characteristics were composed of managerial and demographic characteristics. All of the non-perception data were collected on an ordinal scale (1 to 5). One's perceptions were measured on a 5-point Likert scale (strongly disagree to strongly agree). Items used to measure factors impacting export performance that were formed based on export performance literature can be seen on Table 2.

Table 2

Variable List

Variable	Questionnaire Items
V1	Our product's difference improves our export performance *
V2	Our promotion activities improve our export performance *
V3	Distribution channel's effectiveness improves our export performance *
V4	To give importance price strategies improves our export performance *
V5	Domestic legal constructions are barriers for our export activities *
V6	Domestic economic situations are barriers for our export performance *
V7	Legal constructions of our export markets are barriers for export activities *
V8	Socio-cultural specifications of our export markets are barriers for export activities *
V9	Our manager's willingness to export improves our export performance *
V10	As manager's educational/training level is higher as export performance is higher *
V11	As years that manager in business are more as export performance is higher *
V12	As manager is more experienced in export activities as export performance is higher *
V13	What is number of employer for your firm? **
V14	How many years was your firm in business? **
V15	How many years is your firm exporting? **
V16	What were your total sales in next year? **
V17	As e-export activities is more as export performance is higher *
V18	As export market's physical distance is less as export performance is higher *

*Measured by degree of agreement to the survey items: 1= Strongly Disagree, 2= Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

** Measured by interval in 5-Likert scale

Export Performance Measurement

Composite measures for export performance were used to overcome the drawbacks of both objective and subjective measures and to utilize the advantages of the two approaches. For this reason, six items were introduced in the questionnaire for export performance.

Total sales and export sales were two questions asked on an ordinal scale (1 to 5). Export intensity that is an objective indicator was measured as a ratio of a firm's exports to its total sales. The other items were subjective, namely based on the respondent's idea or perceptions. These items measured on 5-point Likert scale (strongly disagree to strongly agree) are "our export activities achieved the goal of increasing number of export markets", "our export activities achieved the goal of improving export market share current", "our export activities achieved the goal of increasing number of export products" and "our expectations from export activities totally materialized". Although there were five items to measure export performance, two of them were used in this analysis: a subjective item (expectations materialization) and an objective item (export intensity). Though this subjective measure choice sounds to be somewhat arbitrary, the reality wasn't so, because the goals of firms might be different from what we thought and asked them.

Exploratory Factor Analysis (EFA)

To reduce the data pertaining to the variables influencing export performance, factor analysis was carried out. Firstly, KMO (Kaiser-Meyer-Olkin) sample adequacy measure that should be above 0.50 was found 0.578 (Norusis, 1993). The results of the factor analysis with varimax rotation were shown in Table 3. For export performance determinants, a five factor solutions explaining for 85.75% of the total variance was found. Factor 1 consists of four items and accounted for 23.12% of total variance. It is defined as export marketing strategies. Factor 2 cap-

tured four items. This second factor explained for 19.86% of total variance and is labeled as environmental factors. Factor 3 comprised three items and accounted for 17.45% of total variance. It is named as managerial characteristics. Factor 4 captured four items and explained for 16.79% of total variance and is labeled as demographic characteristics. Factor 5 comprised three items one of which was put out from the analysis since its loading was below 0.40. This last factor explained for 8.54% of total variance and is named as dialog conditions. Next, separate reliability analysis was performed for factor-based scales. The coefficient alpha of the entire factor based scales except that for the dialog conditions scale was above 0.60 indicating satisfactory internal consistency (Hair et al., 1992). Because of the low reliability of the dialog conditions (α=0.577), we put this dimension out from the analysis.

Finally, a four-factor solution was found while being expected a three-factor solution for export determinants. This construction was adopted for the rest of analysis. Later, three factor structure was also experimented as well.

Table 3

Factors Analysis of Export Performance's Determinants

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
F1 Export Marketing Strategies					
V1Product differentiation	.957				
V2 Promotion	.933				
V3 Distribution channel	.897				
V4 Price strategies	.632				
F2 Environmental Factors					
V5 Domestic legal constructions		.862			
V6 Economic situation		.682			
V7 Foreign political environment		.775			
V8 Foreign socio-cultural environment		.714			
F3 Managerial Characteristics					
V9 Exporting attitude				.792	
V10 Education				.692	
V11 Manager's professional experience				.489	
V12 Manager's export experience				.756	
F4 Demographic Characteristics					
V13 Number of employer			.846		
V14 Age of firm			.821		
V15 Age of firm's export					.38
V16 Annual total sales			.783		
F5 Dialog conditions					
V17 E-export					.857
V18 Physical distance					.790
Eigenvalue	7.182	2.530	2.072	1.461	1.332
Explained variance (%)	23.125	19.857	17.447	16.778	8.545
Bartlett's test of sphericity	X^2= 3823.343, df:136, p:.000				
Cronbach alpha coefficients	.9315	.9183	.8109	.6326	.5767

Measurement Model

In order to develop a multiple indicator measurement model according to the definition provided in equation (1) for the determinants of export performance, a confirmatory factor analysis using the LISREL 8.2 program (Jöreskog and Sörbom, 1993) was applied.

$$x_i = \lambda_i \xi + \delta_i , \quad (1)$$

where x_i is i^{th} indicator from the set of unidimensional indicators, λ_i is the corresponding factor loading, ξ is latent variable and δ_i is the corresponding regression residual, uncorrelated with any factors or residuals (Jöreskog and Sörbom, 1993).

Polychoric correlations using weighted least squares (WLS) estimation was used. The reason of this is when the observed variables in SEM analyses are both all of ordinal scale or a combination of ordinal and interval scales, the categorical nature of these variables should be taken into account and analyses should be based on polychoric or polyserial correlations using WLS estimation (Byrne, 1998).

The results for the measurement model, reliability coefficients (α) for each item and composite reliability coefficients (ρ) for each multiple item scales computed by equation (2) (Gerbing and Anderson, 1988) are shown in Table 4.

Table 4

Measurement Model Results

Constructs and Indicators	Completely Standardized Loadings	Indicator Reliability	Standard Error	t Value
F1 Export Marketing Strategies (STR)	.95 *	.97 **		
V1 Product differentiation	.99	.98	.02	36.00
V2 Promotion	.99	.98	.02	37.00
V3 Distribution channel	.91	.82	.02	35.00
V4 Price strategies	.91	.82	.02	35.00
F2 Environmental Factors (ENV)	.91 *	.95 **		
V5 Domestic legal constructions	.99	.98	.02	35.00
V6 Economic situation	.91	.82	.03	21.33
V7 Foreign political environment	.96	.92	.03	22.67
V8 Foreign socio-cultural environment	.79	.62	.04	11.50
F3 Managerial Characteristics (MNC)	.77 *	.86 **		
V9 Exporting attitude	.94	.88	.03	22.00
V10 Education	.85	.72	.03	21.00
V11 Manager's professional experience	.41	.17	.06	2.66
V12 Manager's export experience	.87	.76	.03	21.33
F4 Demographic Characteristics (DMC)	.77 *	.83 **		
V13 Number of employer	.58	.34	.02	35.00
V14 Age of firm	.98	.96	.05	7.80
V16 Annual total sales	.77	.59	.06	4.67
Dependent Variable (PRF)	.68 *	.66 **		
Y1 Export Intensity	.81	.66	.03	27.00
Y2 Expectations Materialization	.59	.34	.03	19.67

* Variance extracted estimate
** Composite reliability of each construct

As seen in Table 4, all the lambda values are anticipated direction and magnitude and each is significantly different from zero what does define existence of convergent validity. Also the all ρ values are considerably above 0.65 being acceptable value. This stated that the measurement model is reliable.

$$\rho = (\sum \lambda_i)^2 / ((\sum \lambda_i)^2 + \sum (1 - \lambda_i^2)). \quad (2)$$

A most critical and basic assumption of measurement theory is that each of measures is acceptably unidimensional. Unidimensionility refers to the existence of a single construct underlying a set of measures (Hattie, 1985). Confirmatory factor analysis of multiple-indicator measurement model directly tests unidimensionality according to the equation 1 by means of goodness of fit statistics (Gerbing and Anderson, 1988).

Table 5 presents some of the goodness of fit statistics belonging to our measurement model.

Table 5

Goodness of Fit Summary Results for Measurement Model

Goodness of fit statistics	Model	Recommended value
X^2	103.32	Bentler and Bonett, 1980;
d.f.	84	Bentler, 1989
P value	.03275	
RMSEA	.038	≤ .10
SRMR	.040	≤ .10
GFI	.97	≥ .90
AGFI	.96	≥ .90
NFI	.86	≥ .90
NNFI	.96	≥ .90
CFI	.97	≥ .90

As Table 5 shown, all indices have satisfactory values. These results state clearly that the measurement model is acceptable. Having been verified justness of four-factor measurement model, three-factor model was experimented by combining demographic characteristics with managerial characteristics. Found result was unsuitable (X^2=297.61, df = 81, $\Delta X^2_{(3)}$=194.29, p=0.0).

Structural Model

In this study, the export performance model shown in Figure 1 was proposed and investigated. The five theoretical constructs (latent variables) are shown in ellipses.

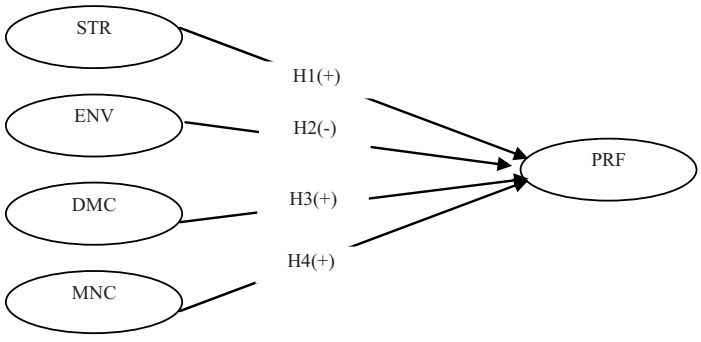

Fig. 1. Causal Model

The proposed linkages in the model lead to following hypotheses that are claimed based on export performance literature.

H_1: The more focus on export marketing strategies is, the higher the export performance is.

H_2: The more affected by environmental factors is, the less the export performance will be.

H_3: The better the managerial characteristics are, the higher the export performance is.

H_4: The larger and older the firm is, the higher the export performance appears to be.

Before examining the path coefficients and the results of hypothesis tests found using the LISREL 8.2 program that are presented in Figure 2 and Table 6, it is beneficial to emphasise two important points. One of these is discriminant validity and another is nomological validity.

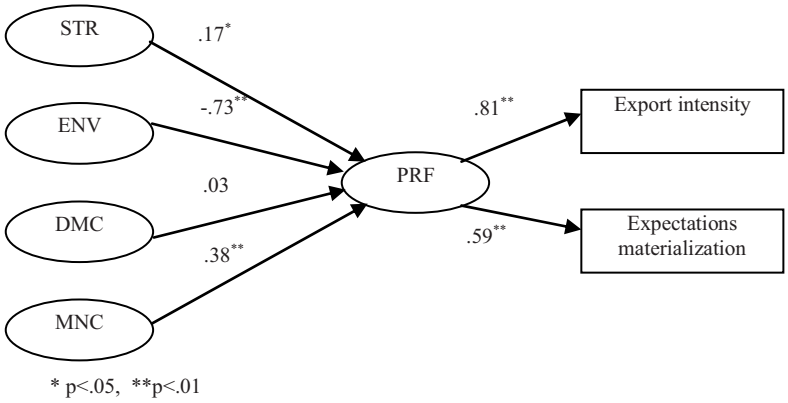

Fig. 2. Export Performance: A Casual Model with Computed Parameters

Discriminant validity ensures that the different constructs are not measuring the same concept or ideas. In order to be achieved discriminant validity, correlation coefficients should be lower than the reliability coefficients (Gerbing and Anderson, 1988).

In this study, in testing for evidence of discriminant validity for the constructs, factor correlations matrices in Table 6 were examined and seen that the discriminant validity exists.

Table 6

Factor Correlations Matrices

	STR	ENV	DMC	MNC
STR	1			
ENV	-.13	1		
DMC	.006	-.02	1	
MNC	.07	-.29	.01	1

In order to assess nomological validity, two-step approach developed by Anderson and Gerbing (1988) was adopted in this study. Namely, the measurement model first is developed and evaluated separately from the full structural equation model that simultaneously models measurement and structural relations. The measurement model in conjunction with the structural model makes possible a comprehensive confirmatory assessment of construct validity.

The results from the structural model confirmed H1, H2 and H4, but did not lend support for H3. According to the results presented in Table 7, factor that has the most effect on export performance is environment. But it is negatively related to export performance (b_2=-.73). The second major factor is managerial characteristics that impact positively and significantly export performance (b_4=.38). The subsequent factor is export marketing strategies of that relation to export performance were found positive and statistically significant (b_1=.17). The found all relationships and their signs are consistent with export performance literature.

Table 7

Structural Model Results

		Completely Standardized Loadings	Standard Error	t Value	Hypothesis Test Results
STR →	PRF	.17	.08	2.13*	H1 Supported
ENV →	PRF	-.73	.24	-3.04**	H2 Supported
DMC →	PRF	.03	.08	.37	H3 Rejected
MNC →	PRF	.38	.13	2.92**	H4 Supported

The sole dramatic finding that demographic characteristics did not return a significant value, thus refuting H3 (b_3=.03). This is surprising given the tremendous importance placed on it in the international context. The probable means of this are taken up in the discussion chapter.

Table 8

Goodness of Fit Summary Results for Structural Model

Goodness of fit statistics	Model	Recommended value
X^2	264.12	(Bentler and Bonett, 1980;
d.f.	109	Bentler, 1989)
P value	.00	
RMSEA	.09	≤ .10
SRMR	.085	≤ .10
GFI	.96	≥ .90
AGFI	.94	≥ .90
NFI	.93	≥ .90
NNFI	.92	≥ .90
CFI	.96	≥ .90

As seen from the goodness of fit statistics in Table 8, the chi-square value of 264.12 for the 109 degrees of freedom is insignificant. Thus, it could say the null hypothesis that the model presented in the paper is a good fit with the data. The error statistics of root mean square error of approximation (RMSEA) of .09 confirm that the errors of fit in the covariance matrix are very low. This is confirmed further by a low value for the SRMR of .09. The fit indicators give an overall confirmation of the fit. Goodness of fit index (GFI) is .96 and comparative fitness index (CFI) is .96, both confirming an excellent fit of the model to the data.

Discussion

Firm's commitment to exporting activities such as allocation, human and financial resources and investment in technology, planning and other sources has been the most popular way to succeed in international markets. For this reason, to achieve success in export markets due largely to the multiple indicators such as environmental factors especially in foreign environments, managerial characteristics and marketing strategies of firm's. Improving the understanding of these factors impacting export performance is an important strategic concern in view of the rapidly changing global scope of business. This study therefore examined the effect of above mentioned indicators on export performance.

A parsimonious model of export performance of the firms was developed in this study and was tested empirically with the sample consisted of Turkish industrial firms. Although the study results are drawn from a sample of top executives in Turkish industrial firms, the findings

should be of general interest to companies in other smaller countries, which are seeking to improve export performance.

The findings of the many study results were as expected, some were surprising. For example, environment was factor of first-rate importance but it was negatively related to export performance. Whatever not as to degree of importance, as to existence and sign this finding was expected based on literature (Raven, *et al*., 1994; Cateora, 1996; Adams and Hall, 1993; Zou and Cavusgil, 1996; Beamish, 1993; Cavusgil and Zou, 1994). The negative sign of relationship was derived from sounding entry barriers to foreign markets of environmental efficient. For the Turkish firms in the sample, in addition to foreign or domestic legal constructions, cultural and religious differences are very effective on export activities and performances because these firms do most of their exports to the countries that culturally distant to themselves as USA, EU, Australia, Africa, China and Japan, etc. Thus for the firms, flexibility to environmental factors become important. Besides, organizations always should have effective relationships with their external environments to export their products effectively.

The relationship between export marketing strategies and export performance was found to be positive and significant that is consistent with export performance literature (Dean *et al*., 2000; Louter *et al*., 1991; Dominguez and Sequeira, 1993; Amine and Cavusgil, 1986; Leonidou, *et al*., (2002). For analytical purposes, a total of four different marketing strategy variables were examined: product differentiation, promotion, distribution channel and price strategy. According to the analysis results, importance of marketing strategies for export performance does not have perceived sufficiently by the exporters of Turkish industrial firms. Actually, the most promising predictor of performance other than the environmental conditions and managerial characteristics should be export marketing strategies and the use of these strategies. Because marketing strategies and management characteristics are controllable by firm whereas environmental conditions can not be changed.

The export performance literature has reported mixed results with regard to the relationship between firm size, firm age and export age and export performance. In this study firm characteristics were separated to demographic and managerial factors as a result of exploratory factor analysis. Interestingly, demographic factors measured by firm size, age and export experience had no significant influence on the firm's export performance. There are findings like this although the contrasts are much more (Bilkey and Tesar, 1977; Czinkota and Johnston, 1983). Some possible explanations are that export performance may not change on a linear scale with changing firm size or age. Some small firms may focus their operations on foreign markets cause of drawbacks in domestic market or may not be able to export cause of foreign markets barriers. The goals of small firms may low and so to say that achieved goals them is easier. In that case, the level of export performance that measured by expectations materialization will be higher for small firms but when they compare themselves with their competitors, they may percept as lower place where are they. Although it is believed that the older firms the better export performance, some young firms may be introducing to business by exporting. Based on the explanations cited above and the results of analysis it can say that for the firms used in this study, the answers to questions associated to firm demographic characteristics did not exhibit discriminatory attribute.

Managerial characteristics have a positive and significant impact on export performance as expected (Koh, 1991; Axinn, 1988; Bilkey, 1978). It is interesting that while managerial characteristics are very effective, firm characteristics are not. That is to say, the firm and its managers are posed separated concept, not a unitary. This can be explained by corporate governance deficiency of the firms in the sample (Kula, 2005; Yurtoglu, 2000). In addition, for managers, a certain degree of failure must be tolerated in case that some subunits have the autonomy to take risks that do not jeopardize the existence of a whole firm. Actually, more organic structures with decentralized organizational architectures and more fluid and ambiguous job responsibilities are also likely to provide an organizational environment in which innovative ways of doing business are encouraged (Cadogan *et al*., 2002).

Limitations and Future Research

This study determined the order of precedence of the factors that should be focused on environment, management and strategy to improve export performance; however, a number of limitations to the generalization of these findings exist. The research was made by using data from Turkish businesses, thereby limiting the generalization of the findings to non-Turkish firms. Additionally, the larger sample size can increase the reliability of the findings.

The operationalization of constructs can be improved by generating more indicators. For example, examining the role of market selection, market segmentation, technology, human resources management practices, enterprise resources, etc. could be potential antecedents of export performance. Furthermore, two measures for export performance that is one objective other subjective used in this study. While subjective measure explained 34% of total variance, one objective explained 66%. In the future studies, the measures apart from these or addition to these could be used.

This study focused on a single time period. Actually, export performance should be measured in a more dynamic way. Because, there is a considerable need to compare the relative degree of importance of firm's pre-export behavior and actual export success.

This research was conducted in a single country context. The performance measures used in the study reflect the unique emphasis that Turkey places on exporting. Therefore, in future studies, more efforts should be made to validate scales across countries.

This study assumed a linear relationship between the export performance and its determinants. Indeed, the nonlinear relationship can be tried in future researches.

In short, although the study provides theoretical and practical insights into the determinants of export performance measures, future researches is needed to replicate and extend the proposed model to reinforce our confidence in the generalizability of the findings of the study.

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