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FACTORS EFFECTING AUTOMOTIVE COMPANIES' EXPORTING PERFORMANCE: FACTOR ANALYSIS OF 'FORD, TOFAS AND HONDA' BETWEEN THE YEARS 2009 AND 2019

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ABSTRACT

Export is the most crucial dynamic of foreign trade since it provides economic development and economic equilibrium in many countries. Exporting firms have to meet their export expenditures with their own equity, with the raw materials and investment goods they export in order to increase their export performance. Thus, in order to increase the export performance of automotive companies, gathering the information about factors such as existing data of export, R&D expenditures, market value, Return on Assets (ROA) and dividend payment rate is extremely important for exporters. Besides, obtaining the information about which of these factors are the most effective on exports is important for the success of exporters as well. In this study, how the independent variables (Export Rate, R&D Expenditures, Market Value, Return on Assets (ROA) and Dividend Payment Rate) affect the automotive companies' export performance is discussed. By applying the factor analysis, which is a statistical and econometric method, the effects of independent variables on the dependent variable: the firm export performance are examined. As a result of analysis, the most effective variable on the firm exporting performance rate is R&D Expenditures. Market Value leads to an increase in the firm exporting performance rate. Dividend Payment Rate, affects cost of exports negatively and weakens the rivalry in the foreign market. The competitiveness of a country in global market depends on the well operated and stable Return on Assets (ROA) of production process. As the condition of being competitive and reducing export costs by increasing effectiveness and efficiency in monetary policies could increase productivity, exports and the firm exporting performance in the economy.

Keywords: Export, Exporting Performance, Foreign Trade, R&D Expenditures, Exporters.

JEL Codes: M11, L10

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1. INTRODUCTION

Innovation has the strongest effect on the firm exporting performance. With new innovations in a sector, firms could link up most strongly interregional exports. In general, new discoveries of the firm commonly meet intra-regional trade needs. Thus, early internationalization is a great opportunity depending positively on the number of countries firms export to and the intensity of export activities to increase firms' performance. Exporters Assembly has declared the certain foreign trade numerical data on monthly basis. In February, exports have been announced as \$ 14.7 billion, increasing 2.3 %. Besides, annualized exports have reached \$ 182.1 billion. Despite all the global and regional developments and uncertainties (TIM, 2020). After COVID-19 pandemic called a global threat, export companies are exporting to support proactive solutions; because COVID-19 pandemic has already concluded a slowdown in the global economy and international trade and limits the supply chain all over the world. Many governments take some precautions in order to maintain exporting firms' survival in this process with minimal loss and damage.

February 2020 Automotive Export Report states that 1,555 new entrants have exported the goods for the first time in the month of February. These companies, which have just started exporting, realized an export of \$127 million (TIM, 2020). The automotive industry was the leader of exporting facilities in February 2020, with a sum of \$2.52 billion. Apparel sector followed automotive with \$1.52 billion dollars and chemicals placed 3rd with \$1.51 billion. The exports of 7 sectors increased more than 10 percent. In the first 2 months of the year, 21 sectors succeeded in increasing their exports (TIM, 2020). In February 2020, Turkey exported to 207 countries and regions. While exports to 122 of these countries increased compared to February 2019 data, the increase in 80 countries was over 10 percent and in 38 countries it was over 50 percent. The top 3 most exported countries were Germany with \$ 1.3 billion, Iraq with \$ 906 million and the United Kingdom with \$ 856 million. While the share of the top 10 countries in exports was 48.9 percent, this share of top 20 countries was 67.1 percent (TIM, 2020). To better understand, in February 2019, the effect of the EUR/USD parity was -\$271 million. The negative effect of the parity was -\$496 million dollars in February 2019 (TIM,2020).

2. LITERATURE REVIEW

In the research published by Malmberg and Lundequist (2000), the researchers empirically evaluated the effects of various agglomeration economies on firm exporting performance. Their study based on a data set containing the data of all export companies of Sweden and the study concluded that traditional economies of scale and urbanization economies have a greater contribution to a firm's exporting performance than localized economies, organized industrial zones, new industrial areas and innovative environments. In their study, Fabling and Sanderson (2013) examines the input and efficiency dynamics of the process of manufacturing companies entering the export market. The study argues three possible causes of observed productivity differences between exporting companies and non-exporting companies. These are self-selection of high performance companies for exporting; learning

impacts after exporting and common export-investment decisions. According to Fabling and Sanderson (2013), exporting affects firm performance positively by providing increase in depth of capital and increase in employment rate.

Delgado, Fariñas and Ruano (2002) argue that there is a distinct difference between Total Factor Efficiency rates between non-exporters and exporters based on an example of Spanish manufacturing firms. Farinas and Martin-Marcos (2007) define total factor productivity as a measure of economic efficiency and argue that it constitutes some of the differences in per capita income between countries. Total Factor Productivity is calculated by subtracting the growth rates of labor and capital inputs from the total growth rate (Fernald, 2014). In the study of Jerzmanowski (2007) reveals that the studies examining the recent development and growth rates are an important source of total factor productivity, income levels and differences between countries in growth rates.

In the study of Damijan et al., (2012), it is argued that exploring the technical innovations necessary to increase the overall firm export performance included inputs that are largely used in research and development activities. Thus, some of the innovation rate that increases Total Factor Productivity and firm export performance is explained by quantitative data (Aw et al., 2008). When the social return rate of the R&D expenditures embedded in the firm export performance input data is almost equal to the private return rate, the impact of R&D on the firm performance is fully explained (Sterlacchini, 1999). On the other hand, when there is a difference between private and social rates of return with R&D expenditures, which reflects the innovation component being inadequate in explaining the impact as a whole. Thus the importance of the concept of internal technical innovation, which is the harbinger of a new growth theory, is getting more apparent (Hulten, 2001).

Internal technical innovation is now a key feature of the leading innovation modeling. Following the new rapidly growth academic literature and the practices of learning curves to various sectors, there are two key concepts that have emerged: information capital and learning curves (Fischer et al., 2003). Kohler, Grubb, Popp and Edenhofer (2006) argued that the development of information capital and the fact that information capital is partly unrivaled and excluded are driven by internal technical innovation.

There are different applications of internal technical innovation (Aghion et al., 1998). Some problems have arisen during the application phase. For instance, when setting up recursive CGE models, there are certain difficulties in incorporating internal technical innovation and increasing returns from inclusion (Laeven et al., 2015). The main limitations of existing models, including intrinsic technical innovation, are (Barbier, 1999): lack of uncertainty analysis; the spread of technology is limited and representative; The institutional structures are not represented in the innovation process and the factors that are not distributed homogeneously in the modeling (Redding, 2002).

Regarding the study of Love et al., (2016), researchers discover the reasons of economic performance differences between non- exporters and exporters, and exploration and learning

processes and unique methods that exporters developed while developing and exporting export structures. As a result of the research, it is observed that the company performance indicators such as efficiency, size, wages and innovation in export companies are higher than those that do not export. In addition; according to the study of Miller and Upadhyay (2000), it is concluded that the Total Factor Efficiency difference estimated by parametric methods between exporter and non-exporter companies is considerably high.

Fabling and Sanderson (2013), on the other hand, observe that the performance differences between the domestic market and the export domestic market were quite high. On the contrary to the expectations, the firms exporting at the time of entering a new market did not perform even higher than non-exporters, and that they were close to each other. Briefly, in the light of the findings, the most surprising result of this study is that after the company entered the market, there was no systematic change between the performances of non-exporter companies and exporter companies.

On the other hand, Atkin et al., (2017) argue that exporter companies obtained higher profit reports and showed great improvements in their production and supply quality in the stages after the introduction and export stages. The study findings of Lages et al., (2009) show that exporting firms can create higher profit margins for high quality products that take longer to produce than those that do not export. Export also contributes significantly to the development of firm performance, as it increases technical efficiency (Bernard and Jensen, (1999), allows to increase quality when desired with a similar production process using the same capital equipment as domestic production, and provides learning opportunities through export (Atkin et al., 2017).

Wagner, (2012) states that the exporting companies have superior firm performance compared to non-exporting companies. Employment, costs, wages, shipments, capital density and productivity are higher in exporting firms than non-exporting firms.

3. CONCEPTUAL FRAMEWORK

Export is the most crucial dynamic of foreign trade since it provides economic development and economic equilibrium in many countries. In developed and developing countries, many governmental supports are given to increase exports. In developed countries in order to maintain their market shares, exporters open up to new markets while in developing countries, exporters attach importance to industrialization to start exporting. Firms have to meet their export expenditures with their own equity, with the raw materials and investment goods they export in order to improve their export performance. Thus, on the purpose of increasing the automotive companies' export performance of overall companies, gathering the information about factors such as existing data of export, R&D expenditures, market value, Return on Assets (ROA) and dividend payment rate is extremely important for exporters. Besides, obtaining the information about which of these factors are the most effective on exports is important for the success of exporters as well.

In this study, the research question is “How Export Rate, R&D Expenditures, Market Value, Return on Assets (ROA) and Dividend Payment Rate affect automotive companies’ export performance”. By applying the factor analysis, which is a statistical and econometric method, the effects of these factors on the firm export performance are examined.

4. METHODOLOGY

4.1. Sample

The sample of this study focuses on the top 3 exporting automotive companies export reports: FORD, TOFAS and HONDA. The sample data have been gathered from the Exporters Assembly Reports between the years 2009-2019.

4.2. Dependent Variable

In this study, the effects of financial performance indicators and value added activities on firms’ exporting performance are analyzed. Thus the dependent variable is firms’ exporting performance. The firm exporting performance is generally defined as the output of the business from international sales.

The firm exporting performance data were measured by Exporters Assembly in a monthly basis so that the dataset for dependent variable is gathered from the monthly reports from Exporters Assembly. The Exporters Assembly focuses on mostly to meet the private organizations in a variety of sectors part of exportation facilities are providing scnyronizing and information sharing among many Exporter Associations, getting involved more in defined export targets and decided policies, performing job responsibilities to reach the determined export purposes and to make contribution among job performance that performed rivals and other business organizations. Besides, Exporters Assembly performs job obligations regarding such control mechanism as government and formal organizations on targets related both directly and indirectly with export facilities and foreign trade and makes positive impacts on business and export facilities being performed (<https://www.tim.org.tr/en/about-tim-what-we-do>).

The independent variables data Export Rate, R&D Expenditures, Market Value, Return on Assets (ROA) and Dividend Payment Rate is gathered from the reports prepared by Statistical Institute in a monthly basis. The Statistical Institute follows up the improvements research techniques on science, and methods and current information technologies regarding the field of statistics and to take related measures for the adoption of the current improvements, finds the areas where statistical data are required as well as data compilation methods in cooperation with the relevant governmental institutions and business organizations, by giving importance to the all priorities and duties decided by the government and measures the performance of business tasks assigned by the export associations for the related institutions and business organizations linked with the official statistics. Further, it examines statistics regarded by these institutions and organizations based on their international export and production standards, checks quality control mechanisms and to maintain technical support when needed to ensure coordination in export facilities, publishes Annual Monitoring Reports

including the implementation of Exportation Program, evaluates the export indicators related to all countries in order to make useful country based comparisons, plans, improves and implements research and technical assistant export projects in cooperation with the local, international and national business organizations and governmental institutions for gathering the business data in the useful business areas with the enhancement of existing technical capacity and coordinates with many countries and global business organizations, and to plan global export meetings in the field of statistics (turkstat.gov.tr).

4.3. Independent Variables

In this analysis, 5 independent variables: Export, R&D Expenditures, Market Value, Return on Assets (ROA) and Dividend Payment Rate which affects the performance of the top 3 exporting automotive firms are examined.

4.3.1. Export is the sale of a product to foreign countries in exchange for foreign currency. In other words, Export means selling goods and services that are in free movement within the borders of a country to other countries.

4.3.2. R&D Expenditures means expenditures on activities such as basic applied research and development and these expenditures are strategic decisions as they affect the productivity, costs, profitability and market value of companies.

4.3.3. Market Value is the estimated amount that a property has to change hands after an appropriate marketing, within the framework of an agreement where the parties are acted in a knowledgeable, prudent and well-intentioned agreement, without any coercion and under the conditions that the parties will not be affected by any relationship. In other words, it is a provision money, which is used in real estate evaluations, expropriation transactions and taxation, and a willing buyer in the market can undertake to pay to a willing seller.

4.3.4. Return on Assets (ROA) is an indicator that shows how profitable a firm is compared to its total assets. In addition, it gives an idea of how effective management uses their assets to earn money. It is displayed as a percentage of active profitability calculated by dividing a company's annual earnings by total assets. Sometimes this is called "return on investment". It could be formulized as “Asset Profitability Rate = Net Profit / Total Assets”.

The larger the coefficient at the end of this calculation, the more successful companies are used to generate profits. Active profitability tells about earnings from investment capital. Active profitability for public firms could vary greatly and is highly dependent on the sector. Therefore, when using active profitability as a benchmark, it is best to compare it to a company's previous asset profitability numbers and a company's asset profitability in similar sector.

The assets of the firm consist of both equity and debt. Both of these financing types are used to finance the company's activities. Active profitability figures give investors an idea of how effective it is for the company to convert the money it has to invest into a net income for

the company. The higher the rate of return on assets, the company makes more money with less investment.

For instance, if a firm has a net income of \$ 1 million and total assets of \$ 5 million, Asset profitability is 20 %. However, if another firm earns the same amount of earnings but their total assets are \$ 10 million, this rate has an asset profitability of 10 %. The first company based on this example is better at making its investment into profit.

Dividend or alias; is the share of the company from the periodic profit earned by an enterprise in cash or shares. Dividend, which has an important partnership right, means giving a share based on the amount of shares each partner in the enterprise has.

4.3.5. Dividend Payment Rate is among the data carefully monitored by investors, while it is determined based on the companies' year-end balance sheets. The net annual profit of a company enables the dividend to be paid to the investors of that company. Dividend payment; is the division of the portion corresponding to at least 20 % of the amount remaining as a result of the deduction of taxes and other payments from a company's net annual profit. In other words, dividend payment is called for the company to distribute to its investors, provided that it is not less than 20 % of the portion remaining after deducting taxes and other expenses from the net annual profit. Dividend payment decision is taken at the general assembly of the company upon the proposal of the board of directors.

4.4. Control Variables

In the analyses, variables are controlled according to the firms' overall performance. The criteria underlying the measure of firm performance could be transcribed from the study of Chetty and Hamilton (1993).

In order to rank firms, the data was gathered under a single factor based on firms' overall performance. The new factor other than Factor 1 and Factor 2 has emerged and has been named as General Factor. According to this ranking in General Factor, the three companies which have the highest overall performance are as follows; FORD, TOFAS and HONDA automotive companies.

4.5. Theoretical Aspects

The aim of the factor analysis is to group the variables into factors, so Factor Analysis will be applied to the data set. In factor analysis, firstly, the data must be either spaced or proportional. The data used in this analysis are proportionally scaled.

In this Factor Analysis, 2 Factors were created. The variables included in Factor 1 are asset profitability and dividend payment rate. The variables included in Factor 2 are the variables of export, market value and R&D expenditures. Factor 1 and Factor 2 would be given a meaningful names which are identified as Financial Ratios and Value Added Activities. Since the variables included in the Financial Ratios Factor consist of the financial performance

indicators of companies such as asset profitability, dividend payment rate, Factor 1 is named as Financial Ratios. The reason why the second factor is named as Activities Creating Value Added is the grouping of export, market value and R&D expenditure indicators increase the firm's added value.

5. FINDINGS

First, Principal Components Method is chosen as the Factor Analysis method is to find factors that are not related to each other. The correlation and covariance matrix options in the analysis section were used to measure the size of the variables close together. Since it would not be known how many factors will be separated and how many factors will emerge; Eigenvalues are chosen to find the number of factors automatically. When Eigenvalue is selected, among 5 variables in the sample which variable is above the component value of 1 is expected to form unique factor during Factor Analysis. Rotation Varimax performs linear factor rotation, so this option is also included in the analysis. In the factors that are formed after Factor Analysis, the closer the values to zero means the closer to the average. If the values are below zero, that is, the value is below the average. If the values are above zero, that means the value is above the average.

Table 1. Correlation Matrix

		Export	R&D Expenditures	Market Value	Return on Assets	Dividend Payment Rate
Correlation	Export	1,000	,124	,752	,235	,348
	R&D Expenditures	,24	1,000	,041	-,114	,073
	Market Value	,752	,041	1,000	,320	,393
	Return on Assets	,235	-,114	,320	1,000	,666
	Dividend Payment Rate	,348	,073	,393	,666	1,000
	Sig. (1-tailed)					
Sig. (1-tailed)	Export		,301	,000	,160	,066
	R&D Expenditures	,301		,433	,316	,380
	Market Value	,000	,433		,085	,043
	Return on Assets	,160	,316	,085		,001
	Dividend Payment Rate	0,66	,380	,043	,001	

When looking at the **Table 1:** Correlation Matrix above, it can be said that the correlation with the variables itself is Diagonal and 1.

Table 1 reports the descriptive statistics and correlations for the two factors (Financial Ratios and Value Added Activities). There seems to be a significant correlation between the variables Export and Market Value, and between Return on Assets (ROA) and Dividend Payment Rate. The relationship between Market Value and Dividend Payment Rate and the relationship between Market Value and Return on Assets (ROA) is though positive but is not

significant. Finally, R&D Expenditures variable is negatively related to Return on Assets (ROA) variable.

Table 2. KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,585
Bartlett’s Test of Sphericity	Approx. Chi-Square	27,732
	df	10
	Significance	,002

Factor analysis separates the variables into variable groups according to their relationship. Significance value in **Table 2**: KMO and Bartlett’s test indicates whether the variables in dataset are related to each other or not. The KMO and Bartlett test is a chi-square statistics and has been developed for consistency of variable values, and the Bartlett test tests whether the correlation matrix is a unit matrix. The hypothesis to be used here in this test is as follows:

H0: There is no significant relationship between variables.

H1: There is a significant relationship between the variables.

The significance value in **Table 2** is 0.002; Since $\alpha =$ is less than 0.05, "**H0:** There is no significant relationship between variables." hypothesis was rejected and "**H1:** There is a significant relationship between variables." hypothesis is accepted. This result shows that factor analysis can be applied to this dataset so we continue the rest of analysis.

Further, the Kaiser –Meyer- Olkin Measure of Sampling Adequacy value in Table 2 measures whether the data matrix is suitable for Factor Analysis. The KMO value in Table 2 is 0.585. In order for the data to be suitable for Factor analysis, the KMO value must be 0.50 and above. As the value of 0,585 is higher than 0.50, it was concluded that the sampling volume was suitable for Factor Analysis.

Table 3. Communalities

	Initial	Extraction
Export	1,000	,794
R&D Expenditures	1,000	,454
Market Value	1,000	,763
Return on Assets	1,000	,804
Dividend Payment Rate	1,000	,710

Extraction Method: Principal Component Analysis

Table 3 shows whether each variable is suitable for Factor Analysis. Extraction value is the value after the variables are reduced to the general factor. Extraction value shows how much of the change (variance) in that variable could be reflected by the new factors.

The variable whose extraction value is lower than 0,50 should be removed from factor analysis and analyzed separately. The fact that the extraction value is close to 1 indicates that the loss is low and most of these variables could be preferred for this factor analysis.

When the extraction values of the variables to be applied for factor analysis are analyzed, it could be seen that the extraction values of the others except for R&D Expenditures value are higher than 0.50. In this case, it will be appropriate to subtract the R&D Expenditure variable from factor analysis but the extraction value of R&D Expenditures value is 0,454 and this is highly close to 0,50; so that we prefer to continue to our analysis without eliminating this variable. Other variables: Export, Market Value, Return on Assets and Dividend Payment Rate have the extraction values higher than 0,50 therefore they are suitable for Factor Analysis.

Table 4. Total Variance Explained

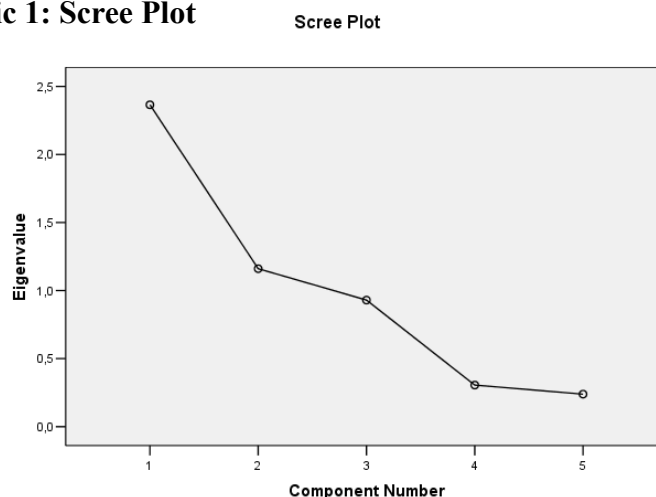
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,365	47,299	47,299	2,365	47,299	47,299	1,769	35,376	35,376
2	1,161	23,215	70,514	1,161	43,215	70,514	1,757	35,138	70,514
3	,930	18,600	89,114						
4	,306	6,112	95,225						
5	,239	4,775	100,000						

Extraction Method: Principal Component Analysis

When the values in the Initial Eigenvalues Total Column in **Table 4** are examined; only two values appear to be greater than 1. As a result, this illustrates that variables are grouped under 2 factors.

Those with Initial Eigenvalues values above 1 are included in two factors and the line component 1 states Factor 1 and the line component 2 states Factor2. The first factor explains 47.299 % of the total change, while the second factor explains 23.215 % of the total change. In total, 70,514 % of the variance is explained by new factors, and the remaining 29,486 % would be due to the loss of information or missing data.

Graphic 1: Scree Plot



Graphic 1 above illustrates how many factors should be collected under variables.

After component number 2, scree plot line starts to flatten by component number 3 and continues component number 4 and component number 5. This means that the component 1 and component 2 are the most effective components in this Factor analysis. The contribution of

variables 3, 4 and 5 are not as much as variables 1 and 2 to this Factor Analysis so that the slope of the line decreases after component 2 till the component 5.

Table 5. Rotation Component Matrix

	Component	
	1	2
Export	,892	,090
R&D Expenditures	,781	,316
Market Value	,242	,858
Return on Assets	,363	,795
Dividend Payment Rate	-,415	,531

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

a. Rotation converged in 3 iterations

Table 5: Rotated Component Matrix shows the factors weights (negative or positive) of the variables in each factor. According to the size of the absolute values, it is possible to observe which factor includes how much weights of the variable. When making a decision to assign the variables to suitable factors; decision to match the variable to the suitable factor should be decided by regarding their absolute values.

In **Table 5**, when the absolute values for Component 1 and 2 columns are compared; It can be said that the variables of Export, Market Value and R&D Expenditures would be suitable for Factor 2 and the remaining variables (Return on Asset and Dividend Payment Rate) would be matched with Factor 1.

Table 6. Component Score Coefficient Matrix

	Component	
	1	2
Export	-,033	,500
R&D Expenditures	-,382	,433
Market Value	,058	,433
Return on Assets	,551	-,138
Dividend Payment Rate	-,431	,032

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

Component Scores

Table 6 indicates the weights of each variable in Factor 1 (Financial Ratios) and Factor 2 (Value Added Activities). This table shows how factor scores are calculated. In other words, **Table 6** illustrates the coefficients of each variable for the relevant factor and the contribution of each variable to each factor. In short, the Component Score Coefficient Matrix shows how variables compose the factors.

In Factor 1 (Financial Ratios), Return on Assets variable is the most contributing variable among any others and the dividend payment rate variable contributes the second largest contribution to Factor 1 after Return on Assets variable.

In Factor 2 (Value Added Activities), while the Export variable contributes the most contribution to the model. R&D Expenditures variable and Market Value variables have almost the same contribution level with Export value contribution to Factor 2.

6. DISCUSSION

According to the results, among all the independent variables: Export Rate, R&D Expenditures, Market Value, Return on Assets (ROA) and Dividend Payment Rate; the most effective variable on the firm exporting performance rate is R&D Expenditures. Changes in the R&D Expenditures are one of the most important factors that determine the foreign trade volume and competitiveness of the country's economy. The independent variable Market Value leads to an increase in the firm exporting performance rate. Dividend Payment Rate, on the other hand, makes exports more expensive and weakens the competitiveness of domestic production, creating a consumer society in the country, as it makes imports expressed in national currency cheaper.

Generally; it is obvious that Return on Assets (ROA) instability causes serious problems in foreign trade and economy. Accordingly, it can be said that the most appropriate Return on Assets (ROA) policy in line with the foreign trade policy of the economy will be the "equilibrium exchange rate policy".

Ensuring an increase in exports depends on the ability of companies producing goods and services to produce in an international competitive environment. The competitiveness of companies depends on the well operated and stable Return on Assets (ROA) of production process. The prerequisite for this is to ensure macroeconomic stability in the country. An important condition of being competitive is to reduce export costs by increasing effectiveness and efficiency in monetary policies. The increase in productivity to be achieved in production will bring about an increase in exports and the firm exporting performance.

7. CONCLUSION

To sum up, there are many studies in the literature investigating whether exports increase firm performance or not. In fact, firms with good performance tend to export, while exporting firms increases their firm performance. Therefore, the interdependence between company performance and exports is a matter of concern; even, the two concepts affect each other positively. Thus, the growth rates and success criteria are higher for exporters than non-exporters.

At the same time, exporters contribute more to growth in employment. Exporting companies in an economy are more likely to survive than other companies. However, these arguments could be valid for short term periods. Considering the long term period, it is seen that the increase in productivity and wages in exporting firms is similar to that of non-exporting firms.

In order to increase the export performance of overall companies, gathering the information about factors such as existing data of export, R&D expenditures, market value, Return on Assets (ROA) and dividend payment rate is extremely important for exporters. Besides, obtaining the information about which of these factors are the most effective on exports is important for the success of exporters as well.

In this study, how the independent variables (Export Rate, R&D Expenditures, Market Value, Return on Assets (ROA) and Dividend Payment Rate) affect the automotive companies' (HONDA, TOFAS and FORD) export performance is discussed. By applying the factor analysis, which is a statistical and econometric method, the effects of independent variables on the dependent variable: the firm export performance are examined.

As a result of analysis, the most effective variable on the firm exporting performance rate is R&D Expenditures. Market Value leads to an increase in the firm exporting performance rate. Dividend Payment Rate, affects cost of exports negatively and weakens the rivalry in the foreign market. The competitiveness of companies in global market depends on the well operated and stable Return on Assets (ROA) of production process. As the condition of being competitive and reducing export costs by increasing effectiveness and efficiency in monetary policies could increase productivity, exports and the firm exporting performance in economy.

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