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The Pulse of The BIST Automotive Index: A Sectoral Analysis Through Financial Performance Indicators[1]

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Abstract

The automotive sector stands out as one of the leading industries in the economic structure of industrialised countries and is directly connected to many sub-sectors. This study aims to analyse the financial performance of automotive companies listed on Borsa Istanbul (BIST) in Türkiye and their sensitivity to macroeconomic indicators, including exchange rates, oil prices, and CDS premiums. Initially, the global and national position of the automotive sector is evaluated, followed by an emphasis on its strategic importance within the Turkish economy. In the analysis section, using data from the 2014–2024 period, the relationships between the stock returns of six leading automotive companies traded on BIST and selected macroeconomic variables are examined. The findings indicate that firms operating in the sector respond proactively to changes in economic indicators, which directly impact the sector's price performance. The results indicate that the automotive industry serves as a key indicator and sensitivity barometer for financial markets in Türkiye.

Keywords: *Automotive Sector, Macroeconomic Indicators, Stock Market Performance, Borsa Istanbul*

Jel Codes: *G12, E44, L62*

BIST Otomotiv Endeksinin Nabzı: Finansal Performans Göstergeleriyle Sektörel Bir Analiz

Öz

Otomotiv sektörü, sanayileşmiş ülkelerin ekonomik yapısında lokomotif sektörlerden biri olarak öne çıkmakta ve birçok alt sektörle doğrudan ilişki kurmaktadır. Bu çalışma, Türkiye'de Borsa İstanbul'da (BIST) işlem gören otomotiv firmalarının finansal performanslarının, döviz kuru, petrol fiyatları ve CDS primi gibi makroekonomik göstergeler karşısındaki duyarlılığını analiz etmeyi amaçlamaktadır. Çalışmada öncelikle otomotiv sektörünün küresel ve ulusal düzeydeki yeri değerlendirilmiş, ardından Türkiye ekonomisindeki stratejik önemi vurgulanmıştır. Analiz bölümünde, 2014-2024 dönemi verileri kullanılarak BIST'te işlem gören altı öncü otomotiv şirketinin hisse getirileri ile seçilen makroekonomik değişkenler arasındaki ilişkiler incelenmiştir. Bulgular, sektörde faaliyet gösteren firmaların ekonomik göstergelerdeki değişimlere karşı öncü tepki verdiğini ve bu değişimlerin sektörün fiyat performansına doğrudan etki ettiğini göstermektedir. Elde edilen sonuçlar, otomotiv sektörünün Türkiye'deki finansal piyasalar açısından önemli bir gösterge ve duyarlılık barometresi işlevi gördüğüne işaret etmektedir.

Anahtar Kelimeler: *Otomotiv Sektörü, Makroekonomik Göstergeler, Borsa Performansı, Borsa İstanbul*

Jel Kodu: *G12, E44, L62*

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INTRODUCTION

The automotive industry encompasses a wide range of activities extending from the design, production, distribution, marketing, and sales of motor vehicles. It is a sector of strategic importance due to its multifaceted economic impacts. Considered one of the locomotive sectors of modern economies, the automotive industry plays a decisive role not only in production but also in the processes of economic development, thanks to its capacity to generate high added value, its potential for employment creation, and its ability to develop technology.

The automotive sector not only has a dynamic structure within itself but is also directly connected to many fundamental and intermediate industries such as iron and steel, petrochemicals, rubber, glass, plastics, electronics, and textiles. This integrated structure among sectors effectively makes the automotive industry the backbone of the manufacturing sector. On the other hand, its indirect relationships with various other areas of the economy, such as tourism, agriculture, transportation, infrastructure, and construction, further enhance the sector's multiplier effect. This multi-dimensional network of relationships positions the automotive industry not only in terms of production and exports but also as a leading and determining force for the overall health of the economy.

On a global scale, the automotive industry experienced significant contraction during the COVID-19 pandemic, with global automotive production decreasing by approximately 15.8% in 2020 compared to the previous year. However, by 2023, it was reported that 93.547 million vehicles were produced (OICA, 2023). In comparison, this figure was 92.18 million in 2019, before the pandemic. These figures highlight the sector's capacity for rapid recovery and its dynamism within the global economic system.

In Türkiye, the foundations of the automotive sector were laid in the 1950s, and from the 1960s onward, it developed in line with industrialisation policies. By the 1970s, it had reached mass production capacity through licensing agreements with foreign brands. Since the 2000s, the sector has internalised modern industrial concepts such as R&D investments, lean production systems, flexible inventory management, just-in-time production strategies, and high-quality service understanding. Today, the Turkish automotive industry has evolved from a structure producing solely for the domestic market into a competitive, export-oriented, and technologically advanced industrial sector.

In this context, the automotive industry stands out as an engine of economic growth, a vehicle for technology transfer, and a significant source of export revenue for the Turkish economy. According to 2023 data from the Turkish Exporters ' Association, the automotive sector accounted for 16% of total exports, maintaining its leadership among all sectors.

This study aims to examine the stock market performance of selected automotive companies listed on Borsa Istanbul (BIST) from 2014 to 2024, as well as the macroeconomic factors that influence this performance. During the analysis process, key macroeconomic variables, such as the USD/TRY exchange rate, oil prices, and Türkiye's risk premium indicator—CDS (Credit Default Swap) values—were taken into account, and the companies' economic sensitivities were analysed based on financial indicators. The automotive companies included in the analysis are: Anadolu ISUZU Otomotiv Sanayi A.Ş. (ISUZU), Borlease Otomotiv A.Ş. (BORLS), Doğuş Otomotiv A.Ş. (DOAS), Ford Otomotiv A.Ş. (FROTO), KARSAN A.Ş., and OTOKAR A.Ş. These companies represent the sector with their production strength and capital market activity, standing out as representative institutions of the Turkish automotive industry.

In this study, instead of qualitative analysis, numerical and graph-based analyses were preferred, and the relationships between the stock returns of the companies and macroeconomic variables were revealed through correlation tables. This approach both objectively measures the sector's sensitivity to macroeconomic changes and provides a quantitative basis for evaluating its level of integration with stock market dynamics.

1. LITERATURE REVIEW

When the literature is reviewed, numerous studies examining the relationship between the automotive sector and exchange rates, inflation, interest rates, and foreign trade are encountered. However, among these, no study has been found that measures the financial performance of the automotive sector in Türkiye on Borsa Istanbul by jointly using exchange rates, oil prices, and Türkiye's CDS values.

When the results of the studies in the literature are examined, they exhibit similarities or differences. Studies that yield different results may be influenced by general characteristics, such as the study period, differences in the countries' economic policies within the studied samples, differences in analytical techniques, or the diversity of countries included.

In this section of the study, Table 1 was created by selecting samples from studies conducted under the title of performance measurement analysis in the automotive sector.

Table 1: Literature Sample Studies

Author(s)	Topic and Study	Period	Model	Main Findings
Özari, Ç. and Çanakçioglu, M. (2025).	Financial performances of vehicle manufacturing companies in Borsa Istanbul.	2023	TOPSIS VIKOR	FROTO and TOASO companies ranked first in 2023. In the VIKOR method, FROTO and TOASA companies ranked first.
Korkmaz, S. and Gökçen, G. (2025).	Market values of companies traded in the BIST automotive sector.	2015-2021	Panel Data Analysis	Leverage ratio, return on equity ratio, return on assets ratio, price/earnings ratio, earnings per share and stock turnover ratios have a significant and positive effect on market value.
Oflaz, Çam and Koç (2024)	Impact of innovation strategies on firm performance.	2022	Mathematical Analysis	It has been observed that innovation strategies have a significant effect on firm performance.
Toprak, Katmiş, . Bektaş, Çakmak and Nebati (2024)	Examination of the sustainable supply chain in the automotive sector.	2006-2023	Bibliometric Analysis	Articles in the field of sustainable supply chain in the automotive sector have been examined in the WoS database.
Diken (2024).	Employee performance in the automotive industry enterprise.	2022	Mathematical Analysis	Organisational and individual career planning measurement contributes to employee performance.
Muftuoglu (2024)	Impact of growth on performance in the automotive sector.	2013-2022	TOPSIS	Sales revenues, assets, equity and R&D expenditure variables affect firm performance.
Göktaş and Çokmutlu (2024)	A game-theoretic approach for financial performance analysis:	2018-2022	Multi-Criteria Decision	It has been determined that the companies with the highest performance are ASUZU, KARSN and TTRAK.

	Application on BIST automotive sector firms.		Making (MCDM)	
Erdoğan (2023)	Financial performance evaluation in the automotive sector.	2016-2021	Dupont	It has been determined that the variables affecting the return on equity ratio in the automotive sector did not differ during the pandemic period, but the impact levels of these factors changed.
Kesici and Yıldız (2022)	Performance evaluation in the automotive sub-industry.	2009-2016	GAP Analysis SWOT Analysis, PESTEL PRIMO-F Risk Analysis	IATF 16949: 2016 quality management system It was determined that the standard has a positive relationship with the increase in business performance
Kendirli and Yıldırım (2022)	Financial Performance of Automotive Manufacturing Sector Companies Listed in BIST.	2015–2019	TOPSIS	The company that showed the best performance during the study period was determined as Federal-Mogul İzmit Piston and Pin Production Facilities Inc. (FMIZP).
Çevik (2021)	Performance Evaluation of Turkish Automotive Companies.	2018	SWARA (Step-Wise Weight Assessment Ratio)	The company with the highest performance is "Ford Automotive".
Avcı, Eker and Bodur (2021)	Performance of green composite materials and the automotive industry.	2016-2020	Empirical analysis	Green composites will reduce the fuel consumption of vehicles and reduce CO2 emissions.
Bal (2020)	Comparative performance analysis of investment funds.	2015-2018	GRY Relational Analysis	Investment funds are unstable.
Kılıç (2019)	Analysis of the financial performance of companies in the Turkish energy sector.	2013-2017	Panel data analysis	A positive relationship exists between stock returns and asset size, net working capital, equity profitability, and debt/total resource variables.
Çilingir (2019)	Financial performance evaluation.	2013-2017	TOPSİS	Companies with high Topsis rankings are more successful than those with low Topsis rankings.
Sargut (2018)	Evaluation of companies in the Iron and Steel Sector.	2011-2016	Financial Analysis Ratio Analysis TOPSIS Grey Relational Analysis	There are differences in analysis methods. It has been emphasised that these differences are related to the calculation methods.
Yanık and Eren (2017)	Financial performance analysis of automotive companies traded on Borsa Istanbul.	2011-2015	TOPSİS, VİKOR ELECTRE	Companies are listed according to financial performance.

Kenger (2017)	Criteria for personnel selection in the banking sector.	2014-2015	ENTROPİ MAUT ARAS Grey Relational Analysis	The most important criterion is reliability.
Aktaş (2016)	Financial performance of automotive companies whose shares are traded on Borsa Istanbul.	2010 - 2015	TOPSİS	A connection has been determined between company success rankings and financial performance.
Ömürbek, Karaatlı, and Balcı (2016)	Determining the financial performance of automotive companies operating in Turkey.	2014	ENTROPİ, MAUT SAW	Companies are ranked according to their performance, and the company with the highest performance is in the same position in all methods.
Güneysu (2015)	Financial performance in the Turkish banking sector.	2009-2013	AHP Grey Relational Analysis	The performance of participatory banks is higher than the performance of commercial banks.
Mandic and Delibasic (2014)	Financial performance of Serbian banks.	2005 - 2010	AHP TOPSİS	The highest scoring criterion is equity.
Sakınc (2014)	Determining the financial performance of football teams in Turkey.	2009-2013	Grey Relational Analysis	Financial performance affects the performance of teams.
Akyüz, Bozdoğan and Hantekin (2011)	Financial performance of companies operating in the ceramic sector on Borsa Istanbul.	1998-20w08	TOPSİS Ratio analysis	The performance levels are ranked and the most productive year is 2005, and the lowest performance year is 2003.
Birgili and Düzer (2010)	Ratios Used in Financial Analysis and the Relationship Between Firm Value	2001-2006	Panel Data, Regression Analysis	The relationship between Total Debt/Total Assets, KVB/Total Debt Ratio, Stock Turnover, Equity Turnover, Operating Profit/Net Sales and the dependent variable market value have been determined as negative.
Martani and Khairurizka (2009).	Stock return success of ISE companies.	2003-2006	Regression analysis	Financial ratios, firm size and cash flow from operating activities affect market-adjusted return and abnormal return.
Ege and Bayrakdaroğlu (2009)	Stock return success of İMKB companies.	2004	Lojistik Regresyon	The market value/book value ratio is not an important variable in explaining stock returns.
Görener and Görener (2008)	The place of the automotive industry in the Turkish economy.	1963-2005	Empirical Analysis	In Turkey, issues such as an insufficient and unstable domestic market, a lack of cooperation between the main and sub-industries, and an

				increase in imports constitute the weaknesses of the automotive sector.
Demir (2001)	Factors affecting stock prices.	1991-2000	Regression analysis	The most important factor affecting the financial sector stock price is the market value/book value ratio.

The originality of this study lies in its analysis of the relationship between the stock performance of automotive companies listed on Borsa Istanbul and macroeconomic factors from a long-term and holistic perspective. Although numerous production, export, and capacity analyses of the Turkish automotive sector are available in the existing literatüre, studies on the macroeconomic sensitivity of these companies from the perspective of financial markets are quite limited. In addition, the fact that the study covers a wide period of 2014–2024 allows us to observe the effects of extraordinary economic periods, such as both the pandemic period and the recovery process that followed. Using the graphical method based on correlation analysis, the firm-based reflections of economic shocks are numerically revealed, thus making the connections between capital markets and the real sector more visible.

2. METHODS AND FINDINGS

2.1. Data Set

In the study, daily prices in US Dollars between 2014 and 2024 of automotive brands that are listed on the stock exchange, domestically produced, and have more than 50% of their capital, as well as CDS premiums (which serve as risk premiums during this period), and Borsa Istanbul Industrial indices, were used. The companies included in the analysis are Anadolu ISUZU Automotive Industry Joint Stock Company (ISUZU); Borlease Automotive Joint Stock Company (BORLS), a subsidiary of Bor Holding; Doğuş Automotive Joint Stock Company (DOĞUŞ); Ford Automotive Joint Stock Company (FROTO); KARSAN, one of the 500 largest industrial enterprises in Türkiye and a subsidiary of Kıraça Holding Joint Stock Company; and OTOKAR, a subsidiary of Koç Holding Joint Stock Company. The data used in the analysis were obtained from publicly accessible sources.

Among the companies mentioned above, the prices of BORLS were analysed using data covering only the two years following their listing on the Stock Exchange. Of course, it is accepted that the explanatory power of short-term data is limited. However, due to its prominent position in the Turkish automotive industry, it was still included in the analysis. In addition, TOGG, the pride of Türkiye, was excluded from the analysis due to its newness in the market and the lack of sufficient data.

To reveal the situation of these companies in the face of economic developments, apart from the stock market analyses of automotive companies, the changes in oil prices, which are the most important factors affecting growth in the industry, changes in US Dollar prices, which directly affect foreign trade and costs, and changes in the Risk Premium, which best reflects the situation in world markets, were also used to analyze the situation of automotive companies in the face of economic developments. For this purpose, an economic analysis was conducted using the 10-year values of the Dollar-to-TL exchange rates, oil prices, and risk premiums.

2.2. Purpose and Scope

The study aims to examine the Stock Exchange Performances of domestically capitalised manufacturing companies in Türkiye. Daily stock exchange prices of 6 companies between 2014 and 2024 were taken; an evaluation was made using the graphs obtained by using the data together with the changes in oil prices and the US Dollar/TL exchange rates, which caused the costs to change (rather increase) over imported input prices in the same period.

Not only the changes in exchange rates and oil prices compared with the company stock exchange prices, but also the changes in risk premium (CDS) were examined. According to valid economic and financial rules, it is stated that cost increases and risk increases negatively affect the stock exchange prices of companies. In the study, it was evaluated whether there was a development by this rule and, if not, why such a result emerged.

Not only do oil prices, exchange rates, and risk premiums affect company performance, but also wages, inflation, interest rates, and foreign trade relations have significant effects. However, in the literature reviews, it was understood that variables other than those discussed in this study were studied. For this reason, the scope of the subject was narrowed, and the study was conducted by taking into account only oil prices, exchange rate changes, and risk premiums.

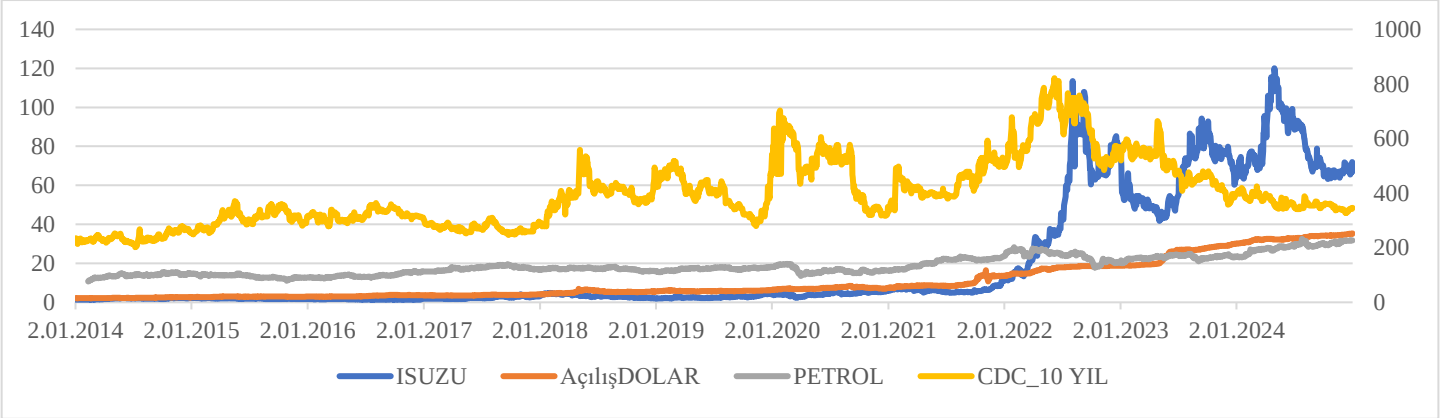
2.3. Methodology

In this study, analyses were conducted using graphs created from the data. Attention was paid to keeping the analysis within both financial and economic frameworks. A correlation table was created to reveal the extent to which the variables in the data set influence each other and was included in the final part of the study.

2.4. Stock Market Performance Analysis of Companies in the Turkish Automotive Sector

In this section of the study, the stock market performances of automotive companies traded on the stock exchange and considered as domestic industry were analysed against the index and other basic investment instruments during the same period. The comparative performance of Turkish automotive companies, which play an important role in economic development, was analysed. At the same time, the impact of country risk development on the performance of companies in the sector was revealed and it was made to determined how they developed compared to stocks in other sectors from the perspective of investors.

ISUZU: The analysis is a data and graphic analysis made entirely using the data stated above. The basic statistical data for the variables used in the analysis, along with the correlation coefficients between the variables, are presented in Appendices 1 and 2.



Graph 1: ISUZU & Economic Performance

Graph 1 presents ISUZU company's daily price data between 02.01.2014 and 31.12.2024, and the US Dollar/TL exchange rate and oil prices that are likely to be effective in the activities of automobile companies during the same period (Appendix: 2 Correlation Table shows that this relationship is high). Because in Türkiye, the industrial sector, in general, and the automotive sector, in particular, are characterised by high external dependency and a significant energy requirement. While exchange rates are a factor that increases costs in the sector's input and intermediate goods imports, the weight of oil-related energy is also high. For this reason, the increasing effect of the increase in oil prices on costs will inevitably be. On the right axis of the graph, CDS_10 Annual data is positioned as an economic risk indicator in the same period. While Graph 1 data show that ISUZU company's stock market performance aligns with oil and exchange rates until 2022, it reveals an increase in ISUZU stock market prices after a relative break in oil prices and exchange rates after 2022. Despite the small fluctuations in exchange rates and oil prices until 2022, it is noticeable that the trend of price increases is accelerating. Although exchange rates and oil prices increased after this date, it is notable that the upward break in the ISUZU price is high. The COVID-19 pandemic, which began in 2019, intensified its impact worldwide in 2020. World trade contracted during this period, and large stock increases were experienced in the automotive sector. While stocks in the industry decreased rapidly with high demand increases starting from mid-2022, the stock market prices of the Company increased. In the same period, it is possible to assess that the improvement in the country risk indicator also accelerated the value increase.

It can be said that the data from Chart 1 indicate that the recovery process in the country's economy after 2022 has a direct impact on investor interest in industrial companies. When the effects on the country's risk perception are evaluated with the horizontal course of prices before 2022, it reveals that the negative course in long-term risk perception does not have an increasing effect on stock market performance.

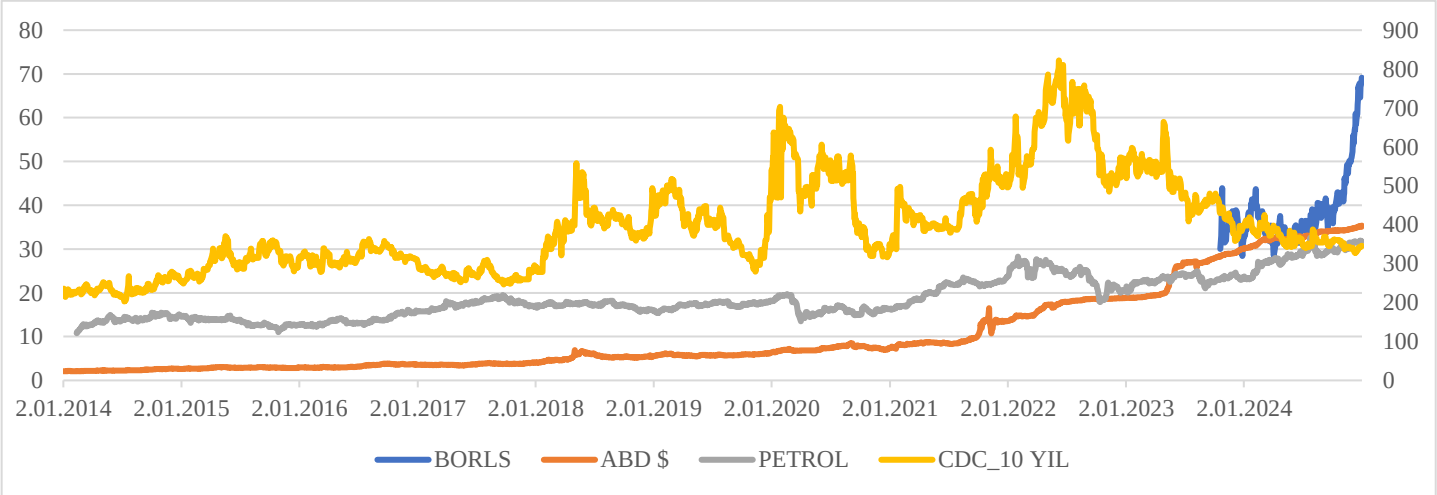
Assuming that other conditions remain the same, after the point where the recovery in the economy was previously perceived by ISUZU shares and the CDS premium peaked in June 2022, ISUZU prices increased and showed a performance in line with the statement in the Dow Theory that "the stock market is the barometer of the economy" on a per-share basis. The Dow Theory is considered one of the cornerstones of modern technical analysis methods. (This theory, developed by Charles Dow, is used to understand market movements more clearly and to predict future price trends. Technical analysis methods combine with tools such as graphic patterns, oscillators, and trend lines by expanding the principles predicted by

this theory.) Although firm value is affected by expectations, economic performance follows changes in the risk premium with a lag.

BORLS; Graph 2, BORLS company's daily price data between 02.01.2014 and 31.12.2024, and the US Dollar/TL exchange rate and oil prices that are likely to be effective in the activities of automobile companies in the same period are presented. On the right axis of the graph, CDS_10 Annual data is positioned as an economic risk indicator in the same period.

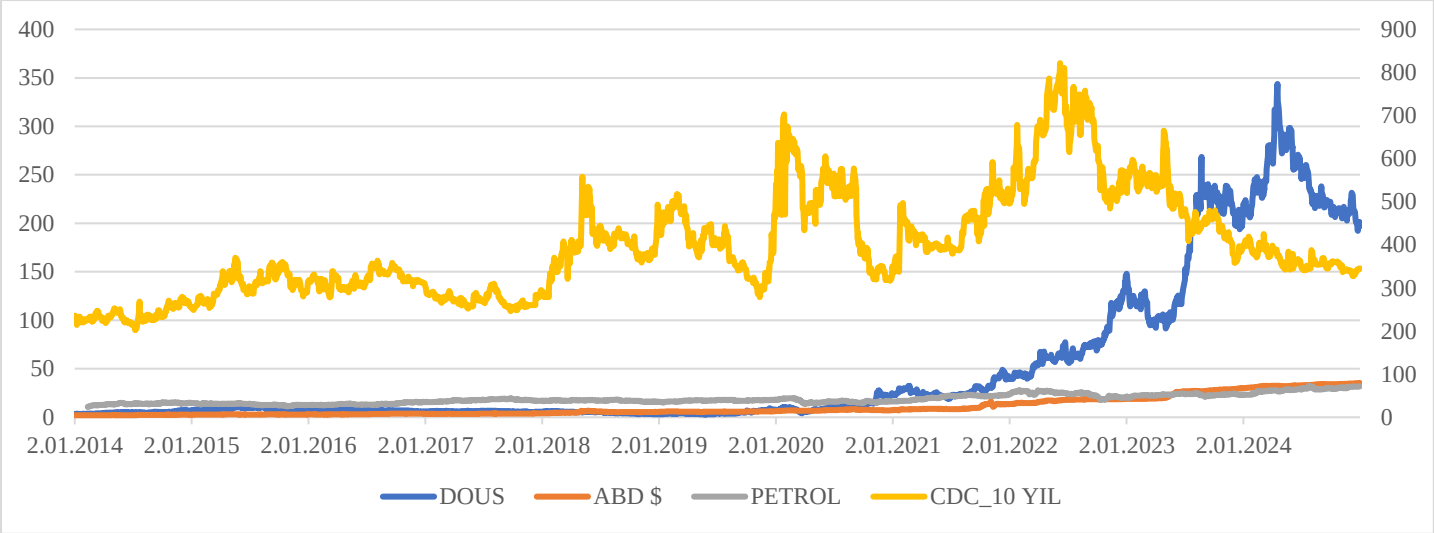
Similarly, oil prices exhibited a fluctuating yet continuously increasing trend during the considered period, while exchange rates also showed an upward trend. As stated in the previous analysis, the effect of the increase in oil prices and exchange rates on costs is a valid approach for the entire economy The fact that the oil prices and exchange rate relationship does not have a very significant value for the BORLS company in the correlation table (Appendix 2) is because a clear comparison cannot be made, since the relevant company will be listed on the stock exchange towards the end of 2023.

On the right axis of the graph, CDS_10 Annual data is positioned as an economic risk indicator in the same period. Graph 2 data shows that the improvement in the Country risk indicator accelerates the increase in value. Here again, the decrease in CDS is followed by a delayed increase in the firm's stock market value. In addition, the negative relationship value between the BORLS firm's stock market value and the Risk premium in the Correlation Table (Appendix 2) is evidence of the approach that the firm's stock market value decreases when the risk increases.



Graph 2: BORLS & Economic Performance

DOĞUŞ; Graph 3 shows the relationship between the daily price data of DOĞUŞ company for the last ten years and the US Dollar/TL exchange rate and oil prices, which are effective in the activities of automobile companies in the same period (Appendix: 2 Correlation Table shows that this relationship is high). Similarly, the effect of the increase in oil prices on costs should be expressed as a positive relationship.



Graph 3: DOĞUŞ & Its Economic Performance

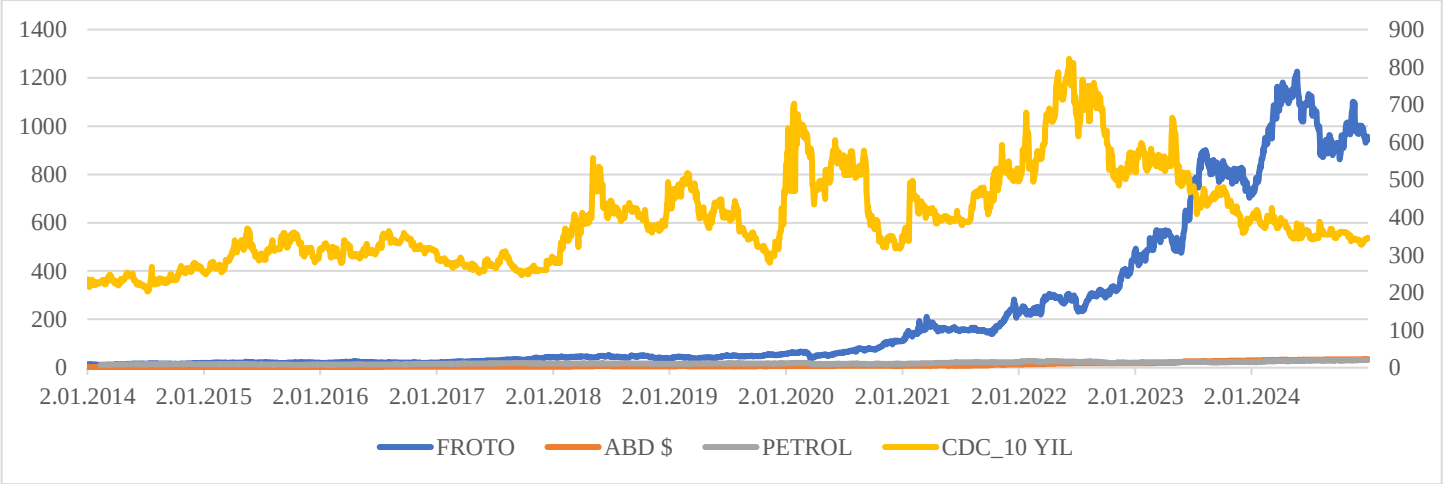
The right axis of the graph shows CDS_10 Annual data as an economic risk indicator. Graph 3 data shows that DOĞUŞ's stock market performance moved in the same direction as oil and exchange rates until mid-2020. However, DOĞUŞ stock market prices have followed a rapid increase trend parallel to the relative break in oil prices and exchange rates since mid-2020. As mentioned before, the fact that the increase in the stock market value of the relevant company is much higher than the oil and exchange rate increases, and that it continued to rise during the period when CDS continued to rise (2021-2022), can be attributed to the increase in positive expectations in the markets and especially in DOĞUŞ's activities.

In summary, when the effects on country risk perception are evaluated with the horizontal course of prices before 2020, it reveals that the negative course in risk perception did not have an increasing effect on stock market performance.

It should be noted that assessing economic developments and stock market price movements solely through stock market indices, oil prices, and exchange rates provides an incomplete picture. A comprehensive analysis requires the examination of multiple variables simultaneously. In addition, the distorting and potentially misleading effects of speculative transactions involving certain securities traded on stock exchanges must be taken into account. Under the assumption that other conditions remain constant, it is observed that DOĞUŞ shares reflected the improvement in economic conditions in the first quarter of 2021, that the CDS premium continued to rise during this period, and that the price increases in DOĞUŞ shares persisted even in June 2022, when the CDS premium reached its peak. Subsequently, despite the decline in the CDS risk premium, stock prices continued to rise and, independently of this trend, entered a downward phase as of the first quarter of 2024. The fact that stock prices decreased despite the fall in the risk Premium, an outcome that appears contradictory, indicates that the relationship between the two variables is weak. In other words, stock values cannot be explained solely by the risk premium; rather, they are influenced by a broader set of economic, social, and behavioural factors. This conclusion is further supported by the low coefficient reported in the Correlation Table in Appendix 2.

FROTO; Graph 4 shows how the US Dollar/TL exchange rate and oil prices have developed with the daily price data of the FROTO company for the last ten years. While the dollar exchange rate and oil prices were in a continuous upward trend with small fluctuations, FROTO prices showed a higher upward trend compared to these prices from mid-2017 to the first

quarter of 2020, and started to increase rapidly from 2020 onwards. The upward trend in the value of the company increased even more after 2023, when the impact of the Covid-19 pandemic began to decrease, economic indicators improved, and expectations increased. It is understood that the increase in confidence in the FROTO company, which showed an excellent performance in the period under consideration, was met with the increase in demand for its stocks.

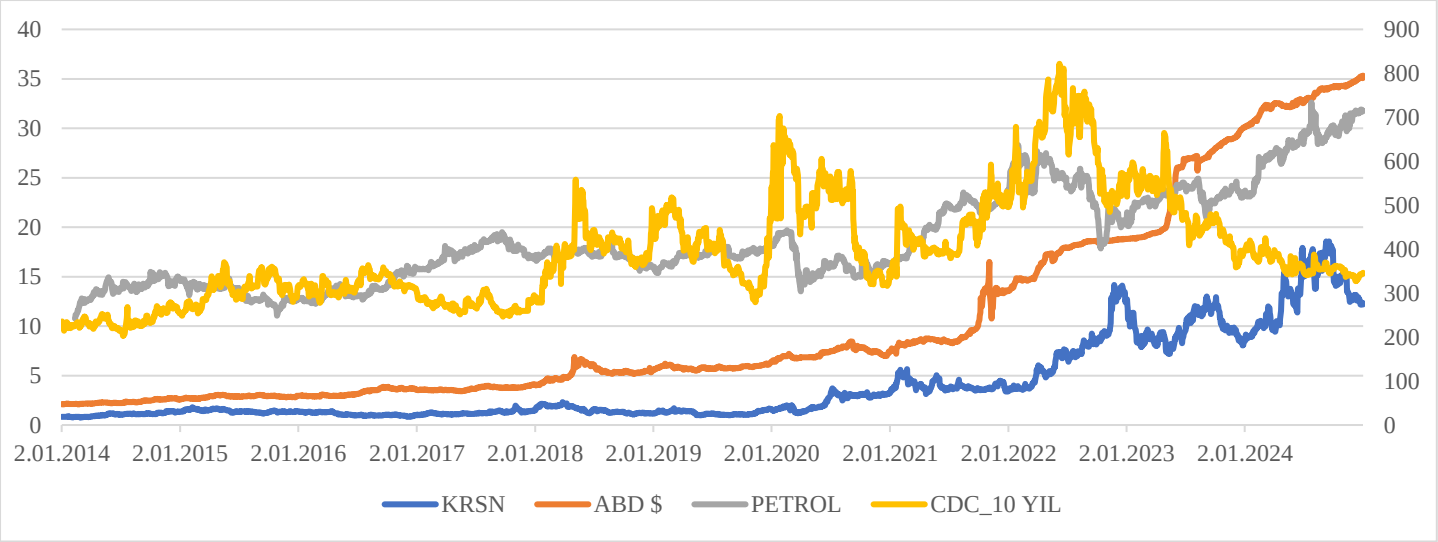


Graph 4: FROTO & Economic Data

When it comes to the developments in the CDS_10 Annual data on the right axis of Chart 4; despite the fluctuating graph in the risk premium, the increasing trend until 2023 is seen. The fact that the company's price continues to increase while the risk premium increases during this period is an indicator of the market's confidence in the company. Although it is possible to attribute the price increases after 2020 to the decrease in the risk premium, the increase in the FROTO company price against the exchange rate, oil prices, and risk increase between 2021 and 2023 is explained by the analysis made in the previous paragraph. Just as the contraction in global markets during the pandemic period negatively affected the entire world, it also impacted our country's industrial sectors in the same manner, and the risk premium has continued to increase during this period. Appendix 2: Correlation Table is a summary of the explanations made.

As in the analysis conducted for other companies, assuming that other conditions remain constant, it is seen that FROTO shares perceived the improvement in the economy in the first quarter of 2020, the CDS premium continued to increase during this period, and the price increases in FROTO shares continued even in June 2022, when the CDS premium peaked. Unlike the DOĞUŞ company price, the increase in share prices against the decrease in the risk premium does not eliminate the existence of a linear relationship between the risk premium and company prices. Because it should be stated here that the share value cannot be explained only by the risk premium, but depends on other economic, social and behavioural variables.

KARSAN; Graph 5 shows the data from the last ten years of the KARSAN company. In Graph 5, while oil prices in relation to the US Dollar/TL exchange rate exhibit a continuous upward trend, both have shown a similar breakdown since 2020, with these increases accelerating. On the other hand, KARSAN prices showed a similar increase in the face of the increase in the dollar exchange rate and oil prices, but this increase remained below both prices.



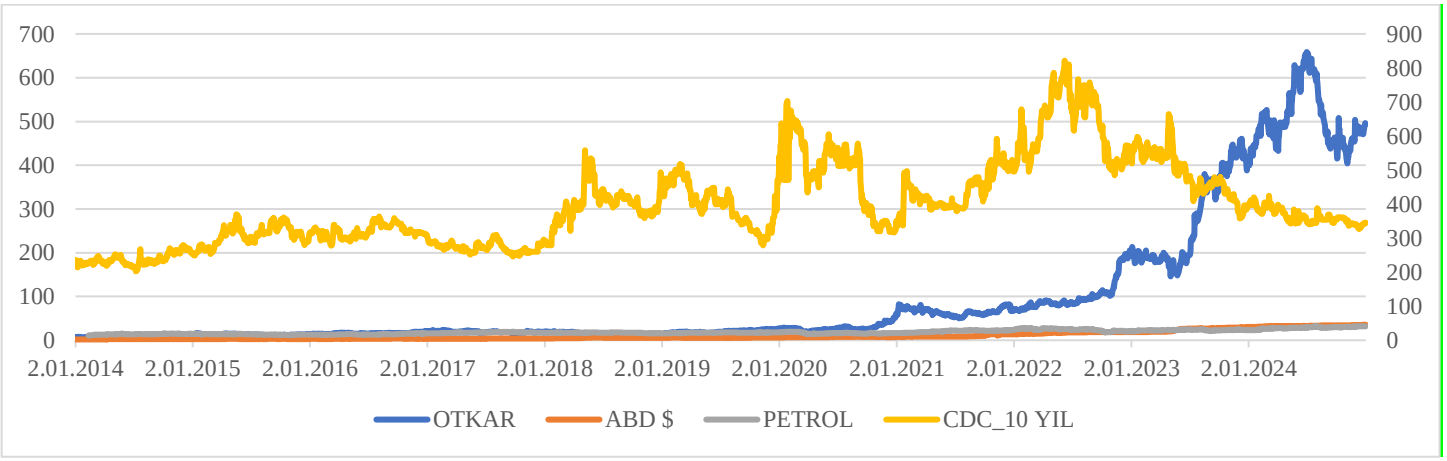
Graph 5: KARSAN & Its Economic Performance

In the development of CDS_10, Annual data on the right axis of the graph (Graph 5) shows an increasing trend in the risk premium until the first quarter of 2023, followed by a significant decreasing trend thereafter. The fact that KARSAN prices, the risk premium, have continued to rise after the highest point of the period considered in the first quarter of 2022, can be evaluated as the increase in confidence in the Company in the period when the markets are revived and the economy is in the recovery process. Despite cost increases such as the dollar exchange rate and oil prices, the increase in KARSAN prices stands out as a factor that strengthens this evaluation.

OTOKAR; In Graph 6, it is observed how the US Dollar/TL exchange rate and oil prices have developed using the daily price data of the OTOKAR company for the last ten years. While the dollar exchange rate and oil prices have shown a continuous upward trend with small fluctuations, OTOKAR prices have shown a higher upward trend compared to these prices from 2016 to 2021, and have entered a rapidly increasing trend since 2021.

The year 2023, when the impact of the Covid-19 pandemic began to decrease, economic indicators improved, and expectations increased, was a year in which OTOKAR prices experienced a positive break with a high slope. It is understood that the upward trend in the company's value was met with an increase in confidence in the company, which performed very well during the period in question, and an increase in demand for its stocks.

When it comes to the developments in the CDS_10 Annual data on the right axis of Chart 6, although the risk premium has an up-and-down appearance, it shows an increasing trend until 2023. The fact that the company's price continued to rise despite the increase in the risk premium during this period is an indicator of the market's confidence in the company. Although the decline in the risk premium is expected to start from the second half of 2022, the rapid increase in the Company's price supports this statement.



Graph 6: OTOKAR & Economic Performance

Assuming that other conditions remain constant, the increase in the share prices (until 2022) in response to the increase in the risk premium, contrary to the OTOKAR company price, does not eliminate the existence of a negative relationship between the risk premium and the company prices. It should also be noted that the share value cannot be explained solely by the risk premium, but rather depends on other economic, social, and behavioural variables.

It is understood that the negative course of the risk premium in the Turkish automotive industry does not always hurt the stock market performance. It is erroneous to attribute economic developments in the markets and movements in stock market prices solely to stock market values, oil prices, and foreign exchange rates, in other words, to developments parallel to economic and financial rules. For this, many variables need to be analysed together. In addition, the distorting and misleading effects of speculative movements made for some papers in the stock exchanges should be taken into account. In addition, our analyses have confirmed that expectations are effective from time to time, despite market rules.

RESULT AND DİSCUSSİON

The main purpose of the study is to examine the Stock Exchange Performances of domestically capitalised manufacturing companies in Türkiye. Daily stock exchange prices of 6 companies between 2014 and 2024 were taken, and an evaluation was made using the data obtained from the US Dollar/TL exchange rates and the changes in oil prices, which caused costs to change (rather than increase) over imported input prices in the same period.

Not only were the changes in exchange rates and oil prices compared with the company stock exchange prices, but also the changes in risk premium (CDS) were examined. According to current economic and financial rules, it is stated that cost increases and risk increases negatively affect the stock exchange prices of companies. In the study, it was evaluated whether there was a development by this rule and, if not, why such a result emerged.

It is generally possible to state that the expected inverse relationship between the company prices analysed and the risk premium does exist. However, the observation that company prices remain high during periods of low risk premia may be explained by positive market expectations. In the period following the onset of the Covid-19 pandemic, despite contractions in production and consumption and the presence of a high risk premium, expectations regarding future increases in production contributed to the rise in the market value of companies. The assumption that economic developments in the

markets and movements in stock prices are determined solely by stock market values, oil prices, and exchange rates, or that they evolve strictly in accordance with economic and financial rules, is misleading. A comprehensive evaluation requires the simultaneous analysis of multiple variables. Furthermore, the distorting and potentially misleading effects of speculative transactions involving certain securities traded on stock exchanges should be taken into consideration. The analyses conducted also confirm that market expectations can, at times, exert a strong influence independent of the prevailing market fundamentals.

The findings of this study have revealed that some companies within the scope of the analysis stand out in terms of financial performance. The results obtained are parallel to studies such as Özari and Çanakçıoğlu (2025) and Muftuoğlu (2024), and the performance-determining nature of ratios such as equity profitability, net sales profitability, and asset turnover rate is also emphasised in these studies. In addition, in the analysis conducted by Erdoğan (2023), return on equity emerged as the main determinant of performance, including during crisis periods. On the other hand, it was observed in our study that financial leverage ratios negatively affected firm performance; this result contradicts the positive findings in some studies, such as Korkmaz and Gökçen (2025) and Martani and Khairurizka (2009). This difference can be explained by the periodicity of the data sets used, country conditions, and methodological preferences. Therefore, our study makes significant contributions to the sectoral and periodic contexts, encompassing both overlapping and distinct aspects of the existing literature.

This study has some limitations. First, the number of companies included in the analysis was limited, and only six automotive companies traded on Borsa Istanbul, whose public data were sufficiently accessible, were examined. Companies operating in the sector but not traded on the stock exchange or with insufficient data transparency were not included in the study. Secondly, the analysis covers only the period from 2014 to 2024, and economic cycles and sector dynamics outside this period are not included in the study. In addition, only certain macroeconomic indicators (exchange rate, oil price, CDS) are focused on, and other important variables such as interest rates, inflation, domestic consumption trends, or automotive credit volume are excluded. This requires caution in interpreting the results.

ETİK BEYAN VE AÇIKLAMALAR

Etik Kurul Onay Bilgileri Beyanı

Çalışma, etik kurul izni gerektirmeyen bir çalışmadır.

Yazar Katkı Oranı Beyanı

Yazarlar tüm çalışmaları birlikte yürütmüştür.

Çıkar Çatışması Beyanı

Çalışmada potansiyel bir çıkar çatışması bulunmamaktadır.

REFERENCES

Aktaş, İ. (2016). *BİST'te Hisse Senetleri İşlem Gören Otomotiv Sektöründeki Firmaların TOPSIS Yöntemine Göre Performans Değerlemesi Ve Analizi* (Yüksek lisans tezi). Manisa Celal Bayar Üniversitesi, Sosyal Bilimler Enstitüsü, Manisa.

Akyüz, Y., Bozdoğan, T., & Hantekin, E. (2011). TOPSIS Yöntemiyle Finansal Performansın Değerlendirilmesi Ve Bir Uygulama. *Afyon Kocatepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *13*(1), 73–92.

Avcı, A., Eker, A. A., & Bodur, M. S. (2021). Yeşil Kompozit Malzemelerin Performans Özellikleri Ve Otomotiv Endüstrisinde Kullanımı. *Journal of the Institute of Science and Technology*, *11*(4), 3035–3054.

Bal, K. (2020). *Emeklilik Ve Menkul Kıymet Yatırım Fonlarının Gri Ilişkisel Analiz Yöntemi Ile Karşılaştırma Performans Analizi* (Yüksek lisans tezi). Karabük Üniversitesi, Lisansüstü Eğitim Enstitüsü, İşletme Anabilim Dalı, Karabük.

Birgili, E., & Düzer, M. (2010). Finansal analizde kullanılan oranlar ve firma değeri ilişkisi: İMKB'de bir uygulama. *Muhasebe ve Finansman Dergisi*, (46), 74–83.

Borsa İstanbul (BIST). (2025). *Borsa İstanbul Endeksleri*. https://www.borsaistanbul.com/tr/endeks

Çevik, D. (2021). Fortune 500 Türkiye Raporunda Açıklanan Otomotiv Firmalarının Performans Değerlendirilmesi. *İzmir İktisat Dergisi*, 36(4), 745–757.

Çilingir, C. (2019). *TOPSIS Yöntemi Ile Finansal Performans Değerlendirmesi Ve Hisse Senedi Ile Ilişkisi* (Yüksek lisans tezi). Marmara Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul.

Demir, Y. (2001). Hisse Senedi Fiyatını Etkileyen Işletme Düzeyindeki Faktörler Ve Mali Sektör Üzerine İMKB'de Bir Uygulama. *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *6*(2), 109–130.

Diken, Ö. F. (2024). Bir Otomotiv Endüstrisi Işletmesinde Örgütsel Ve Bireysel Kariyer Planlamasının Çalışan Performansına Etkisi. *International Journal of Disciplines in Economics & Administrative Sciences Studies*, *9*(52), 1345–1358.

Ege, İ., & Bayrakdaroğlu, A. (2009). İMKB Şirketlerinin Hisse Senedi Getiri Başarılarının Lojistik Regresyon Tekniği Ile Analizi. *International Journal of Management Economics and Business*, *5*(10), 139–158.

Erdoğan, Y. C. (2023). Otomotiv Sektöründe Dupont Yöntemiyle Finansal Performans Değerlendirmesi: BIST Örneği. *İstanbul Gelişim Üniversitesi Sosyal Bilimler Dergisi*, *10*(2), 582–608.

Göktaş, F., & Çokmutlu, M. E. (2024). Nakit Akım Temelli Finansal Performans Analizi Için Bir Oyun-Teorik Yaklaşım: BIST Otomotiv Sektörü Firmaları Üzerine Bir Uygulama. *Journal of Turkish Operations Management*, *8*(1), 307–321.

Görener, Ö., & Görener, A. (2008). Otomotiv Endüstrisinin Türkiye Ekonomisindeki Yeri: Sektörel Bir Inceleme. *Elektronik Sosyal Bilimler Dergisi*, *7*(26), 306–319.

Güneş, S. (2012). Türk Toplumu Ve Otomobil. *SDÜ Fen Edebiyat Fakültesi Sosyal Bilimler Dergisi*, (25), 213–230.

Kendirli, S., & Yıldırım, M. V. (2022). BIST'de Kayıtlı Otomotiv Imalat Sektörü Şirketlerinin Finansal Performanslarının TOPSIS Yöntemi Ile Incelenmesi. *Global Journal of Economics and Business Studies*, *11*(21), 87–97.

Kenger, D. M. (2017). *Banka Personel Seçiminin Çok Kriterli Karar Verme Yöntemlerinden Entropi Temelli MAUT, ARAS ve Gri İlişkisel Analiz Yöntemleri Ile Değerlendirilmesi* (Yüksek lisans tezi). Pamukkale Üniversitesi, Sosyal Bilimler Enstitüsü, Denizli.

Kesici, B., & Yıldız, M. S. (2022). Bir Otomotiv Yan Sanayisinde IATF 16949:2016 Kalite Yönetim Sistemi Standardının Balanced Scorecard Modeli Ile Performans Değerlendirmesi. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, *36*(2), 203–214.

Kılıç, P. (2019). *Finansal Performans Ve Hisse Senedi Getirileri Arasındaki Ilişki: BIST'te Enerji Sektöründe Faaliyet Gösteren Firmalar Üzerine Bir Uygulama* (Yüksek lisans tezi). Niğde Ömer Halisdemir Üniversitesi, Sosyal Bilimler Enstitüsü, Niğde.

Korkmaz, S., & Gökçen, G. (2025). Borsa İstanbul'da Otomotiv Sektöründe Işlem Gören Şirketlerin Finansal Rasyolarının Piyasa Değeri Üzerindeki Etkisi: Ekonometrik Bir Analiz. *Disiplinlerarası Yenilik Araştırmaları Dergisi*, *5*(1), 40–52.

Kozelský, T., & Novák, R. (2015). Automotive Industry: Future Trends. *Special Analysis, ERSTE Corporate Banking*.

KPMG. (2018). *Sektörel Bakış – Otomotiv*. Available:https://assets.kpmg.com/content/dam/kpmg/tr/pdf/2018/01/sektorel-bakis-2018-otomotiv.pdf

Mandic, K., & Delibasic, B. (2014). Analysis of the financial parameters of Serbian banks through the application of the fuzzy AHP and TOPSIS methods. *Economic Modelling*, 43, 37–43.

Martani, D., & Khairurizka, R. (2009). The Effect Of Financial Ratios, Firm Size, And Cash Flow From Operating Activities In The Interim Report To The Stock Return. *Chinese Business Review*, *8*(6), 44–55.

Muftuoglu, E. O. (2024). *Büyümenin Performans Üzerindeki Etkisi: Otomotiv Sektörü Örneği* (Yüksek lisans tezi). Karadeniz Teknik Üniversitesi.

Oflaz, E., Çam, F. B., & Koç, A. G. (2024). İnovasyon Stratejilerinin Firma Performansına Etkisi: Otomotiv Sektöründe Bir Araştırma. *International Business Congressuik, 2024*, 306.

Ömürbek, N., Karaatlı, M., & Balcı, H. F. (2016). Entropi Temelli MAUT ve SAW Yöntemleri Ile Otomotiv Firmalarının Performans Değerlemesi. *Dokuz Eylül Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *31*(1), 227–255.

Özari, Ç., & Çanakçıoğlu, M. (2025). Borsa İstanbul'daki Araç Üretici Firmaların Finansal Performanslarının Analizi. *Mali Çözüm Dergisi*, 35, 109–135. https://www.proquest.com/scholarly-journals/borsa-istanbuldaki-araç-üretici-firmalarin/docview/3164438228/se-2

Pişkin, S. (2017). Türkiye Otomotiv Sanayii Rekabet Gücü Ve Talep Dinamikleri Perspektifinde 2020 Iç Pazar Beklentileri. *Otomotiv Sektör Raporu*. http://www.taysad.org.tr/uploads/dosyalar/06-02-2017-09-59170206_Otomotiv_Sektor_Raporu_TSKB-2208.pdf

Sakınç, İ. (2014). Using Grey Relational Analysis To Determine The Financial Performance Of Turkish Football Clubs. *Journal of Economics Library*, 1, 22–33.

Sanayi ve Teknoloji Bakanlığı. (2021). *Türkiye'de Otomotiv Sanayi ve Gelişimi Raporu*. Available: https://www.sanayivearaclar.gov.tr

Sargut, F. (2018). *Measuring Financial Performances via TOPSIS and Grey Analysis: Iron & Steel Sector Examples* (Yüksek lisans tezi). İstanbul Aydın Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul.

Tezer, E. (1999). *Dünya Otomotiv Sanayii'ne Bir Bakış*. Beşinci Otomotiv ve Yan Sanayi Sempozyumu Bildiriler Kitabı. TMMOB Yayınları, Ankara.

TOBB. (2014). *Otomotiv Sanayi Çalışma Grubu Raporu* (Yayın No: 2014/210). T.C. Kalkınma Bakanlığı, Ankara.

Toprak, B., Katmiş, Ş. Z., Bektaş, D., Çakmak, D., & Nebati, E. E. (2024). Otomotiv Sektöründe Sürdürülebilir Tedarik Zinciri Yönetiminin Bibliyometrik Analiz Ile Incelenmesi. *Sürdürülebilir Çevre Dergisi*, *4*(1), 1–18.

Yanık, L., & Eren, T. (2017). Borsa İstanbul'da Işlem Gören Otomotiv Imalat Sektörü Firmalarının Finansal Performanslarının AHP, TOPSIS, ELECTRE ve VIKOR Yöntemleri Ile Analizi. *Yalova Sosyal Bilimler Dergisi*, *13*, 165–188.