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THE ECONOMIC RESEARCH AND FINANCIAL MARKETS CONGRESS

WITH INTERNATIONAL PARTICIPATION

May 8-10, 2025 BURSA

DIGITAL ECONOMY:
GREEN INNOVATION & SUSTAINABLE FUTURE

PROCEEDING BOOK

Editors

Ömer Burak YEL & Emine ABANOZ



İSTANBUL
NİŞANTAŞI
UNIVERSITY
NEW



**DIGITAL ECONOMY:
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Ömer Burak YEL
Emine ABANOZ

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THE EFFECTS OF INTELLECTUAL CAPITAL COMPONENTS ON RETURN ON ASSETS (ROA), RETURN ON CAPITAL (ROE) AND RETURN ON INVESTMENT (ROIC): THE CASE OF BIST 30

Ayşegül YILDIRIM KUTBAY¹

Abstract

The purpose of the research is to determine the effects of intellectual capital components on the profitability and investment capital of companies operating in the BIST 30 index. Intellectual capital components are defined as all intangible assets that are called the transformed state of knowledge and add value to the production of companies. Since intellectual capital inputs and outputs are not directly included in the financial statements, they are ignored by investors and managers. However, many studies indicate that intellectual capital components are much more than their tangible book value. The calculation of the inputs of intellectual capital components and the knowledge of their impact in advance will even affect the investment decisions to be made in the stocks of companies. The research was conducted with a balanced panel data obtained from companies operating in BIST 30 whose stocks were listed on the stock exchange between 2012-2023. The main mass of the research is the financial data of 30 companies included in the BIST 30 index. However, there are some companies that are included in the scope of the research, although they are included in the scope of BIST 30. These are financial sector companies AKBANK, GARAN, YKBANK and ISATR, since their financial statements are different from other companies, and some variables cannot be formed, KRDMA, KRDMB, KRDM are single companies but have more than one financial statement, KONTR started its operations in 2017 and ASTOR in 2019, and the high number of missing years will cause the evaluation to be incorrect, so they were excluded from the scope of the research. There are three dependent variables in the research. These are return on assets (ROA), return on equity (ROE) and return on invested capital (ROIC). The effectiveness of the firm's physical capital, the effectiveness of the firm's human capital and the firm's structural capital, which are intellectual capital components, were considered as independent variables. In addition, some liquidity ratios, turnover rates and financial leverage ratios were used as control variables. 9 models were developed within the scope of the research. In the analysis of the data, descriptive statistics, correlation analysis, unit root analysis, regression model determination tests, regression results of the models according to the determined regression model, deviation tests from the assumptions of the models and estimation with the appropriate robust estimator for the models in line with the deviation tests were made. According to the results of the research, while the effectiveness of the firm's physical capital has a negative and significant effect on ROE (-0.08813, $P < 0.001$), it is found that human capital has a significant and positive effect on ROA (0.0060137, $p < 0.05$), ROE (0.0112158, $p < 0.001$) and ROIC (0.3446818, $p < 0.001$) variables, respectively. The significant and positive effects of structural capital on ROA (0.0260445, $p < 0.001$) and ROE (0.0530684, $p < 0.001$) were reported specifically for the research.

Keywords: Return on Assets (ROA), Return on Equity (ROE), Return on Invested Capital (ROIC), Intellectual Capital, Business Finance

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EVALUATING THE EFFICIENCY AND PERFORMANCE OF STOCK MUTUAL FUNDS WITH DATA ENVELOPMENT ANALYSIS METHOD

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Abstract

This study aims to evaluate the performance of equity mutual funds (EMFs) traded on the Türkiye Electronic Fund Trading Platform (TEFAS) using Data Envelopment Analysis. Portfolio size and management fees were used as input variables, while net return rate was used as the output variable. When examining the efficiency of equity mutual funds in 2020, it was found that out of a total of 40 EMFs, the “Tacırlar Portfolio Equity Fund” was efficient under the assumption of Constant Returns to Scale (CRS). According to the Variable Returns to Scale (VRS) assumption, the efficient funds were “İstanbul Portfolio,” “Inveo Portfolio Second Equity Fund,” “İCBC Türkiye Portfolio,” “Oyak Portfolio First,” and “Ziraat Portfolio Participation.” For 2021, among 45 EMFs, “Inveo Portfolio G-20 Countries Foreign” and “İş Portfolio Foreign” were found to be efficient under the CRS assumption. Under the VRS assumption, the efficient funds were “İstanbul Portfolio,” “Ak Portfolio America Foreign,” “İCBC Türkiye Portfolio,” and “Osmanlı Portfolio Second.” In 2022, among 54 EMFs, “İCBC Türkiye Portfolio” was identified as efficient under the CRS assumption. According to VRS, the efficient funds were “İstanbul Portfolio,” “Global Md Portfolio First,” “Garanti Portfolio Non-BIST 100 Companies,” “Osmanlı Portfolio Second,” and “Ziraat Portfolio Non-BIST 100 Companies.” In 2023, based on an analysis of 66 EMFs, “Ak Portfolio New Technologies Foreign” and “Inveo Portfolio G-20 Countries Foreign” were efficient under the CRS assumption. Under the VRS assumption, the following were efficient: “İstanbul Portfolio Fourth,” “İstanbul Portfolio,” “Ata Portfolio Dividend Paying,” “Deniz Portfolio Sustainability,” “Qinvest Portfolio Participation,” “Inveo Portfolio First,” “İCBC Türkiye Portfolio,” “İCBC Türkiye Portfolio Sustainability,” “İstanbul Portfolio Participation,” “Kare Portfolio,” “Phillip Portfolio First,” and “Ünlü Portfolio.” In 2024, among 89 EMFs, “Pardus Portfolio First” was found to be efficient under the CRS assumption. According to VRS, the efficient funds were “Allbatross Portfolio Industrial Companies,” “İCBC Türkiye Portfolio Sustainability,” “Osmanlı Portfolio Second,” and “Ziraat Portfolio Foreign.”

Keywords: Mutual Funds, Stock Mutual Funds, Performance Measurement, Data Envelopment Analysis, Effectiveness and Efficiency

COMMODITY SIGNALS AND SHIPPING COSTS: A TVP-VAR ANALYSIS OF BLOOMBERG METALS, DOW JONES COMMODITIES, AND THE BALTIC DRY INDEX

Sümeýra GAZEL³, Sinan Can GÜNGÖR⁴

Abstract

In this study, the effects of the Bloomberg Industrial Metals Subindex and the Dow Jones Commodity Index on the Baltic Dry Index (BDI)—a key indicator of global maritime freight markets—are analyzed using a Time-Varying Parameter VAR (TVP-VAR) model. The analysis is based on weekly data covering the period from April 10, 2000 to July 8, 2024. Within the scope of the model, three major global shock periods are taken as reference: the 2008 Global Financial Crisis, the COVID-19 pandemic, and the monetary tightening period initiated by the FED’s interest rate hikes. Impulse-response analyses are conducted for these dates. According to the findings, during the 2008 financial crisis, the BDI exhibited negative and significant responses particularly to shocks in industrial metals (Bloomberg Index), while the impact of shocks originating from the DJ Commodity Index was relatively weaker. In the early stages of the pandemic, the BDI responded to commodity price shocks in a more volatile and reactive manner, whereas in the post-2022 period, it demonstrated more moderate and limited reactions. The time-varying coefficient graphs reveal that the influence of the independent variables on BDI has significantly changed over time. TVP-VAR results show that the effect of the Bloomberg Industrial Metals Index has increased, especially after the 2008 global financial crisis, while the influence of the Dow Jones Commodity Index has gradually weakened. Additionally, the dependence of the BDI on its own past values was relatively strong in the early 2000s but has significantly decreased in recent years.

Keywords: Baltic Dry Index, Commodity Prices, Industrial Metals, Time-Varying Parameter VAR

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DETERMINANTS OF SUSTAINABILITY ENGAGEMENT IN BORSA İSTANBUL'S TRANSPORTATION INDEX

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Abstract

Sustainability has become a critical concern in the transportation industry due to the sector's substantial environmental impact and its strategic importance in economic development. As transportation companies face growing expectations to address environmental and social challenges, understanding the determinants of their sustainability activities becomes increasingly important—particularly in emerging markets such as Türkiye. This study examines the firm-level drivers of sustainability-related activities among companies listed in Borsa İstanbul's Transportation Index. Using data from mandatory sustainability compliance reports introduced in 2022, the analysis covers the period from 2022 to 2024 and evaluates sustainability engagement across four dimensions: environmental, social, governance, and policy-setting. Descriptive findings indicate strong engagement in corporate governance principles and weaker performance in the environmental dimension. While environmental scores declined in 2024, social scores improved over time. An Ordinary Least Squares (OLS) regression analysis reveals that company size is the most influential determinant across all sustainability dimensions. Larger firms exhibit higher levels of engagement, supported by greater financial and organisational capacity. Cash holdings are also positively associated with overall sustainability performance. Profitability is linked specifically to environmental activities, while capital expenditures are related to strategy and policy implementation. Financial leverage, however, does not show a significant association with any dimension. These results highlight the role of firm-level resources in shaping sustainability practices within Türkiye's transportation sector and provide insights for policymakers and investors interested in promoting more effective and equitable sustainability transitions.

Keywords: Transportation Industry, Sustainability, Sustainability Compliance Report, OLS Regression, Borsa İstanbul

EFFECTS OF ALGORITHMIC TRANSACTIONS AND ARTIFICIAL INTELLIGENCE ON MARKET MANIPULATION IN THE STOCK EXCHANGE

Ayşen BAKKALOĞLU⁶, Aylin Özge ÖZBAY⁷

Abstract

This study examines the impact of algorithmic trading and artificial intelligence (AI) technologies—key drivers of technological transformation in financial markets—on market manipulation, using a multidimensional approach. While algorithmic trading systems enhance market liquidity by executing high-volume trades within milliseconds, their speed and automation also introduce structural features that may facilitate manipulative practices. Similarly, AI technologies, leveraging tools such as big data analytics and machine learning, can optimize financial decision-making processes but also pose significant risks to market integrity if misused.

The study investigates how algorithmic trading can enable manipulation by focusing on factors such as high-frequency transaction capabilities, automated data-driven decision-making, and lack of transparency. It provides an in-depth analysis of techniques including spoofing, layering, pump and dump, and momentum ignition. Furthermore, it assesses the effectiveness of AI-based surveillance systems in detecting and preventing market manipulation within the context of regulatory technologies (RegTech).

Drawing on national and international examples, the study compares the regulatory approaches of authorities such as the Capital Markets Board of Türkiye (SPK), the U.S. Securities and Exchange Commission (SEC), and the European Securities and Markets Authority (ESMA). It also highlights the importance of policy development based on recommendations from global regulatory organizations such as the Financial Stability Board (FSB) and the International Organization of Securities Commissions (IOSCO).

Ultimately, this research underscores the need to address the opportunities and risks associated with algorithmic trading and AI technologies in a balanced manner. It advocates for the establishment of a robust and transparent regulatory framework to safeguard market integrity and protect investor rights, thereby offering a comprehensive and timely contribution to the discourse on the interplay between financial innovation and regulation.

Keywords: Algorithmic Trading, Artificial Intelligence, Market Manipulation, High-Frequency Trading, RegTech, Financial Markets

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SUSTAINABLE PROFITABILITY AND EFFICIENCY ACROSS THE STOCK MARKET: STRATEGIC APPROACHES AND PERFORMANCE EVALUATION IN BUSINESSES

Mete AKYOL⁸

Abstract

This study aims to examine the concepts of sustainable profitability and efficiency in businesses and evaluate the relationship between these two concepts. The research employs literature review and data analysis methods to thoroughly address the impact of sustainability, profitability, and efficiency ratios on business performance. The literature review encompasses the economic, environmental, and social dimensions of sustainability and analyzes existing studies on these topics. The data analysis evaluates the ratios and indicators used to measure the financial performance of businesses and examines the effects of these ratios on business success.

The findings of the research indicate that businesses need to integrate sustainable profitability and efficiency strategies. It has been found that sustainability strategies enhance long-term profitability and provide a competitive advantage for businesses. Additionally, the use of efficiency-enhancing technologies, the development of innovative products and services, and the implementation of sustainable supply chain management are identified as practices that reduce costs and increase profitability. This study aims to contribute to the academic literature and provide practical recommendations for practitioners by addressing the strategies and practices businesses should adopt to achieve sustainable profitability and efficiency goals.

Keywords: Sustainable profitability, Efficiency, Business performance, Profitability ratios, Stock market efficiency.

THE RELATIONSHIP BETWEEN STOCK PRICES OF HIGH-EXPORT SECTORS AND THE EXCHANGE RATE: AN INVESTIGATION WITH TODA-YAMAMOTO CAUSALITY TEST

Tuğba EYCEYURT BATIR⁹

Abstract

The relationship between exchange rates and stock prices has been an important topic of research in financial markets for a long time. The causal relationship between these two variables provides critical information for investors, policymakers and economists. Fluctuations in exchange rates can change stock prices, especially by affecting the profitability of companies dependent on foreign trade. The aim of this study is to examine the causality relationship between the stock prices of the BIST 100 index and the 3 sector indices with the highest exports (BIST Industrials, BIST Textiles, BIST Chemicals) and the exchange rate (dollar exchange rate). In the study, Granger causality test and Toda-Yamamoto were applied using monthly time series data between January 2000 and January 2025. According to the Toda-Yamamoto result, which does not deal with the stationarity of the series and gives more reliable results than the Granger causality test, it is concluded that all of the BIST 100, BIST Industrial, BIST Textile, BIST Chemical indices have a bidirectional causality relationship with the dollar exchange rate. This study is an important guide for researchers and market participants who want to understand the relationship between exchange rates and stock prices.

Keywords: Stock price, exchange rate, Granger causality, Toda-Yamamoto

REFLECTIONS OF EXCHANGE RATE UNCERTAINTY ON Türkiye'S IMPORT AND EXPORT: AN ARDL AND TODA-YAMAMOTO ANALYSIS

Tuğba EYCEYURT BATIR¹⁰, Merve TUNCAY¹¹

Abstract

This study aims to examine the effect of exchange rate uncertainty on foreign trade performance in Türkiye in the context of import and export. As a developing and open economy, Türkiye frequently experiences exchange rate volatility and this uncertainty directly affects foreign trade volume. In this study, which was conducted based on quarterly data for the period 2001-2025, exchange rate uncertainty was calculated with the GARCH (1,1) model; foreign trade variables were analyzed with the ARDL bounds test. As a result of the analysis conducted by considering the stationarity levels of the variables, a long-term cointegration relationship was determined between both import and export series and exchange rate uncertainty. However, the effects of exchange rate uncertainty on import and export were not found to be statistically significant and were negative. Imports, especially in the long term, seem to be more sensitive to exchange rate uncertainty. In order to strengthen the findings of the study, a Toda-Yamamoto causality test was conducted between the variables and as a result of the test, it was determined that there was no connection between exchange rate uncertainty and import and export.

Keywords: Exchange rate uncertainty, import, export, ARDL, GARCH, Toda Yamamoto

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THE IMPACT OF LOGISTICS TRANSPORTATION MODES ON ENVIRONMENTAL POLLUTION: A PANEL DATA ANALYSIS

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Abstract

With globalization, the increase in merchandise trade has recently led to the relocation of production centers to Eastern countries, particularly China. In parallel with the rise in merchandise trade, there has been a significant growth in logistics activities, resulting in a considerable expansion of the logistics sector. Among logistics operations, maritime transportation is undoubtedly the most commonly used mode. Accordingly, efforts to design logistics corridors and integrate maritime transport with road and rail transportation have accelerated. In addition, it has been observed that countries are making new investments in transit road and rail transportation. Besides these modes, air logistics has also increased, especially in the transportation of lightweight but high-value goods. All of these growing logistics activities have been subject to criticism from time to time in terms of environmental pollution at both national and global levels. The aim of this study is to empirically investigate the impact of logistics activities on environmental pollution. For this purpose, the effects of maritime, rail, road, and air transportation on environmental pollution in countries are estimated and compared across transport modes. Based on the empirical findings, evaluations and policy recommendations are provided.

Keywords: Logistics, Transportation, Environmental Pollution, Global Trade, Sustainable Development

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A BOOTSTRAP PANEL GRANGER CAUSALITY ANALYSIS OF THE RELATIONSHIPS BETWEEN TRADE VOLUME AND PORT LINER SHIPPING CONNECTIVITY INDEX IN TÜRKİYE'S CONTAINER PORTS

Aylin KOCA GÜRSOY¹⁵, Sibel İSMAİLÇEBİ BAŞAR¹⁶, Bengü TOSUN¹⁷

Abstract

Ports serve as fundamental operational centers of global trade and play a strategic role in boosting foreign trade, particularly in developing countries. Thus, improving port efficiency becomes a strategic policy priority for developing countries like Türkiye. Operational dimensions of ports, such as handling volumes, logistical effectiveness, and integration with other transport modes are closely linked to key macroeconomic indicators. With the expansion of global supply and value chains, competition among container ports has increased, making their integration into global trade networks more important. When transportation infrastructure investments in Türkiye are assessed by transport mode, it is observed that maritime transportation holds the smallest share. This situation may lead to the use of outdated infrastructure systems in many ports, extended handling times, operational inefficiencies, and a shift of customers to alternative ports.

This study examines the causality relationship between the volume of cargo loaded (exports) and unloaded (imports) at Türkiye's major container ports and the port liner shipping connectivity index, which reflects the level of integration of these ports into global maritime shipping network, using the Konya Bootstrap Granger Panel Causality Test. The analysis relies on quarterly data from 2016Q1 to 2024Q3 for Türkiye's 10 major container ports (Aliğa, Ambarlı, Antalya, Gemlik, İskenderun, İzmir, İzmit, Mersin, Samsun, Tekirdağ). A bidirectional causality relationship is observed between the volume of loaded and unloaded cargo and the port liner shipping connectivity index in most of the ports. However, in some ports, this relationship is unidirectional or statistically insignificant. The findings suggest that Türkiye's port policies should be based on differentiated strategies that consider each port's capacity to integrate into global networks and its impact on trade.

Keywords: Maritime Trade, Port Economics, Konya Bootstrap Granger Panel Causality Test

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CAUSALITY IN HIGH AND LOW INFLATION PERIODS: QUANTILE GRANGER APPROACH IN THE CASE OF Türkiye

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Abstract

This study focuses on inflation, one of the main macroeconomic problems faced by the Turkish economy. The empirical findings are obtained using monthly frequency data for the period 2007:10 - 2024:12. Variables such as policy interest rate, budget balance, nominal and real exchange rate, total credit volume, money supply size and unemployment rate, which are considered to be related to inflation in Türkiye, are included in the analysis. In addition to the Granger causality analysis commonly used in the literature, the quantile-based Granger causality approach proposed by Cheng et al. (2021), which offers an alternative perspective to the literature and allows for the separation of low and high levels of inflation, is applied in the study. The findings reveal that for most macroeconomic variables, there is no significant causality in the lower quantiles (low inflation periods), while causality is found in the upper quantiles (high inflation periods). This suggests that policymakers need to revise their policy sets in periods when inflation dynamics are significantly different.

Keywords: Inflation, Türkiye, Time Series Econometrics, Quantile Granger Causality

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PERCEPTION OF UNIVERSITY STUDENTS ABOUT SHRINKFLATION: THE CASE OF NORTH CYPRUS

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Abstract

Shrinkflation is one of the newly emerging types of inflation triggered by inflation. It refers to a reduction in the size, weight or dimensions of a product without any change in its price. The aim of this study is to measure the perceptions of shrinkflation among law faculty students studying at a private university in Northern Cyprus. A total of 56 students participated in the survey and the collected data were analyzed using descriptive statistics methods. The results reveal that students mostly observed shrinkflation in the form of reduced food portions in restaurants and cafes. Other findings indicate that students perceive shrinkflation as a decrease in quantity, as per the definition, and that they develop strategies such as reducing consumption or purchasing products from other brands to cope with this problem. Finally, while a significant portion of students consider shrinkflation as an ethical problem, another significant portion stated that they can do shrinkflation.

Keywords: Shrinkflation; University Students; Inflation; Perception; Ethics

IT'S NOT WHAT YOU SAY BUT HOW YOU ARE UNDERSTOOD: EVIDENCE FROM CBRT COMMUNICATION

Özlem ARSLAN²¹, Metin ÖZDEMİR²²

Abstract

Over the last two decades, central banks have been communicating more intensively with the public. The scope of their communication has expanded as a result of their efforts to increase the comprehensibility of their policies and to inform the public, but the target audience for communication has remained limited to financial professionals. This is restrictive for central banks that need flexibility and space for new policy steps to be taken in periods of increased uncertainty. Expectations are important in achieving target inflation and the public's level of understanding of policies is not as high as that of professionals. The lack of a healthy and effective communication with the public leads to a decline in trust in the institution. In this study, the announcements of the Monetary Policy Committee of the CBRT regarding policy interest rates between April 2011 and February 2025 were analyzed using the Flesch-Kincaid grade level test, which is used to determine text readability and comprehensibility, and it was determined that their level was at the most difficult level. In the second stage, a pilot study was conducted with the students of Bursa Uludağ University to determine how the simplified text affects understanding and trust in the CBRT. Through an online survey, students were randomly presented with the text of the official announcement on the policy interest rate and a simplified text based on the materials available on the CBRT's website. Students who read the simplified text were more likely to answer questions about monetary policy correctly.

Keywords: Central Bank Communication, Readability Level, Central Bank of the Republic of Türkiye, Experimental Economics

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THE IMPACT OF FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH AND EMPLOYMENT IN Türkiye

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Abstract

This study aims to examine the effects of monetary policies implemented in Türkiye after 2000 on key macroeconomic indicators. Following the economic crises before 2000, Türkiye took significant steps toward achieving macroeconomic stability through extensive reforms. In this context, the impacts of the monetary policies implemented by the Central Bank of the Republic of Türkiye (CBRT) on key macroeconomic indicators such as inflation, interest rates, growth rates, exchange rates, and unemployment rates are analyzed in detail.

The study specifically addresses Türkiye's monetary policy strategies in the post-2000 period, focusing on inflation targeting regimes, exchange rate policies, and interest rate regulations. The effects of money supply, interest rates, and exchange rate policies on macroeconomic indicators are evaluated using econometric models and data analysis methods.

The results show that the CBRT's implementation of tight monetary policies led to a significant reduction in inflation rates; however, high interest rates had a limiting effect on economic growth. Additionally, the impact of exchange rate policies on the balance of imports and exports was examined, revealing that fluctuations in the exchange rate could reach levels that threaten macroeconomic stability. The study emphasizes that for the sustainability of Türkiye's macroeconomic achievements in the post-2000 period, monetary policies must be carefully managed.

This research highlights the critical role of monetary policies in shaping macroeconomic balances in developing countries, using Türkiye as a case study, and provides significant insights into the long-term effects of these policies.

Keywords: Monetary Policy, Central Bank, Macroeconomic Bal

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CAUSALITY RELATIONSHIP BETWEEN MILITARY EXPENDITURES AND ECONOMIC INDICATORS: THE CASE OF Türkiye (1980-2023)²⁵

Yunus Emre EROĞLU²⁶

Abstract

Defense expenditures are the expenditures made by countries to ensure their security and peace. Since the first states were established, the military power of countries has been one of the basic legitimacy indicators of countries, even the most important one. The size of global threats shapes defense expenditures. The increase in conflicts in our world leads to an increase in defense expenditures without economic concerns. Especially countries like Türkiye, which are experiencing instability in their position, have high defense needs. The defense materials needed can be supplied both through production and import. Today, Türkiye is both an exporter and an importer in terms of defense. In this respect, it is necessary to evaluate defense expenditures economically. Our study is based on GDP, military expenditures, foreign trade volume and fixed capital investments between 1980-2023. First of all, the level at which the values become stationary was examined with Phillips Peron and ADF Unit Root tests. Since the values are stationary at the first difference, the first assumption of the Toda Yamamoto causality test is met. According to the Toda Yamamoto analysis, no causality relationship was found between defense expenditures and GDP. In other words, there is no relationship between GDP and military expenditures in the short term.

Keywords: GDP, military expenditures, causality test, unit root test

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MARGINALIZED LABOR, SACRIFICED WELFARE: WOMEN'S DIGITAL CAPITAL AND ITS CONTRIBUTION TO ECONOMIC GROWTH

Elif ASOY²⁷

Abstract

In the context of sustainable development, another substantial issue, in addition to justice in income distribution, is the equitable distribution of physical and human capital. This issue was a fundamental cause of the gender wage gap during the Agricultural Revolution. The Industrial Revolution further reinforced it and, unfortunately, continues to persist in the era of the Digital Revolution. The Digital Revolution, like other major transformations, has led to radical changes in labor markets. Within this transformation, gender-based disparities in access and opportunities have come to be known as the gender digital divide.

Studies have shown that the marginalization of women in the digital era neither provides socio-cultural or economic utility nor contributes to labor market efficiency. On the contrary, it constitutes an obstacle to achieving an optimal labor composition aligned with the needs of the digital age. As a result, policymakers often accept levels of economic growth that fall short of their full potential, while underestimating or even ignoring this issue by continuing to support the patriarchal structure of the existing system.

This study examines the impact of women's digital capital stock and human capital acquisition on the Gross Domestic Product (GDP) of selected countries, using data from EU-27 members spanning the years 2018 to 2022. The Women in Digitalization (WID) Index is incorporated into the analysis as it offers a valuable metric for assessing the gender digital divide and serves as a contemporary proxy for tracking digital inclusion across countries. According to the estimation results obtained from the Driscoll-Kraay model, which was applied following diagnostic tests, a 1% increase in the WID Index—indicating greater female participation in digitalization—leads to a statistically significant increase in GDP.

Keywords: Women in digitalization, digital capital, economic growth

THE ROLE AND SIGNIFICANCE OF FINANCIAL TECHNOLOGY COMPANIES IN STARTUP INVESTMENTS IN TÜRKİYE

Vahdet ALTUNDAL²⁸, Pınar GÜNEÇ BAHÇELİK²⁹

Abstract

Startups are leading disruptive innovations in the field of financial technology, as in many other sectors. Startups operating in this field are called “fintech” and are defined as companies that offer innovative solutions resulting from the integration of financial services with technology. The products and services offered by financial technology companies as solutions have created a significant transformation in the financial sector by offering user-friendly solutions as well as being low-cost, fast and easy to access for both businesses and consumers. This transformation created by fintechs also forces traditional financial institutions to develop innovative solutions. In order to protect their competitive advantage and customers, banks and other financial institutions in particular are collaborating with fintechs or accelerating their own digital transformation processes. In addition, the effective use of advanced technologies such as blockchain, artificial intelligence and big data by fintechs contributes to financial services becoming more personalized, secure and efficient.

While this dynamic ecosystem redefines the ways of doing business in the financial world, both policy makers and traditional institutions emphasize the importance of investing in such startups in order not to fall behind the competition. In this context, this study examined the share of fintechs in total investments made in startups in Türkiye and its change over the years. Between 2019 and 2024, investments made in fintechs were among the top five sectors every year in terms of both amount and number of investments made in startups in Türkiye. While the total investment made in fintechs in Türkiye in 2019 was 4.3 million dollars (USD), this amount increased by approximately 45 times in 2024 and reached 194.5 million dollars. The increase in investments made in fintechs over the years has increased the quality of the services in this field, and it has become one of the sectors that receives the most investment and produces successful startups in Türkiye, especially in areas such as payment systems, digital banking, insurance technologies and cryptocurrency technologies.

Keywords: Startup, Startup Investments, Financial Technology Companies.

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THE FINANCIALIZATION PROCESS AND THE DEVELOPMENT OF PAYMENT SYSTEMS IN Türkiye³⁰

Tayfun YAMEN³¹

Abstract

This study aims to examine the financialization process and the development of payment systems in Türkiye. Financialization has undergone a significant transformation in Türkiye in parallel with economic growth, financial deepening and global integration. Free market reforms implemented especially after the 1980s have accelerated structural changes in the financial sector and enabled the diversification of financial instruments. This process has triggered the development of non-bank financial institutions and digital payment systems in Türkiye and increased participation in financial markets. In particular, digitalization and technological innovations have significantly changed the structure of payment systems. The development of electronic payment systems, especially internet banking, mobile payment solutions and the widespread use of contactless payment technologies have facilitated access to financial services. These changes have enabled both businesses and consumers to perform financial transactions faster, more securely and more practically. The study will address the evolution of payment systems in Türkiye, the integration of the financial system into the global economy and the legal and regulatory developments experienced in this process. In addition, the effects of payment systems on economic development, the potential to increase financial inclusion and the importance of security measures will be discussed. In this context, the impact of the financialization process on Türkiye's economic structure and how payment systems transformed this structure were examined in detail. As a result, Türkiye's financialization process and the development of payment systems have become an important area shaped by economic growth, digitalization and global competition. This thesis reveals that payment systems play a critical role in terms of economic development, financial stability and entrepreneurship. In addition, the contributions of technological innovations and digital payment infrastructures to the financial sector and the future development potential of these systems will be emphasized.

Keywords: Türkiye, Finance, Process, Payment, System.

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AN ESSAY ON THE MODELS USED IN THE ANALYSIS OF ECONOMIC CRISES: THE CASE OF TÜRKİYE

Ahmet ATAKİŞİ³², Kaan DOĞAN³³, Orkun AKTAÇ³⁴

Abstract

Although there has been a significant increase in the economic crises that have occurred at the global level since the 1990s, various models have been developed to explain the underlying causes of economic crises. At this point, studies in literature have focused on determining the explanatory level of macroeconomic indicators to assess the fragility of the financial sector as a result of economic crises or to determine the degree of impact on the economy due to macroeconomic shocks. Therefore, the relevant study in addition to examining the methodological infrastructures of the crisis models in the literature explanation of economic crises, was provided to explore the empirical studies in the literature for economic crises. Thus, it is thought that study titled 'An Essay on the Models Used In the Analysis of Economic Crises: The Case of Türkiye' will be useful in terms of presenting the performance of various macroeconomic and financial indicators for financial crises that took place in the historical process from the perspective of the studies in the literature. Finally, it was preferred to examine the studies conducted with the 'Signal Approach Method' and 'Probit Model Method', which are standard approaches in the examination of economic crisis periods. Instead, unlike the relevant model, it is thought that comparative analysis of methods such as the 'Markov Switching Model' and 'Artificial Neural Network' with the 'Probit Model Method' will provide more important findings.

Keywords: Economic Crisis, Financial Crisis Models, Signal Approach, Probit Model

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THE IMPACT OF VOTING BEHAVIOR ON ENVIRONMENTAL VEHICLE PREFERENCES IN TÜRKİYE: AN EMPIRICAL ANALYSIS IN THE CONTEXT OF CLIMATE CHANGE AND GREEN TRANSPORTATION³⁵

Salih YILDIRIM³⁶, Erdem SÖYLER³⁷

Abstract

The critical step for environmental sustainability is to reduce carbon emissions. To this end, as of 2015, the Paris Climate Agreement and national low carbon target strategies globally aim to reduce carbon emissions directly. The transportation sector accounts for a large share of global carbon emissions. In recent years, the promotion of the transition to a low-carbon economy in the global economy and the start of this transition process support a sustainable transformation in the transportation sector. In this process, environmentally friendly vehicles attract great interest in terms of greening the transportation sector. These vehicles, which are considered as environmentally friendly products, help the clean energy transition by ensuring the green transportation sector. Environmental vehicles are seen as an important innovation and green technology in terms of green transportation. Consumers with environmentalist attitudes support environmentalist/green policies. In parallel with these developments, there has been an increasing interest in climate-related issues, environmental policies and environmental vehicles in Türkiye in recent years. Accordingly, this study aims to investigate the impact of voting behavior on environmental vehicle preferences in Türkiye. In the study, a survey form was created using the environmental ideology scale and applied online to 1250 undergraduate in Türkiye. The data obtained from the survey was estimated by classical regression analysis. According to the estimation results, undergraduate support for environmental public policies and individual environmental voting behavior positively affect environmental vehicle preferences. In addition, socio-demographic variables (income, gender and age) have a positive and statistically significant effect on environmental vehicle preferences. The results reveal that support for environmental public policies has a stronger effect on environmental vehicle preferences than individual environmental voting behavior in Türkiye.

Keywords: Voting Behavior, Climate Change, Green Transport, Environmental Vehicles, Türkiye

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TÜRKİYE’S DIGITALIZATION VISION: TECHNOLOGY AND INNOVATION IN STRATEGIC DOCUMENTS

Hilal TAŞ³⁸, Ebru Z. BOYACIOĞLU³⁹

Abstract

This study examines the themes of digitalization, technological transformation, and innovation as addressed in Türkiye’s 12th Development Plan (2024–2028) and the Medium-Term Program (2024–2026). The primary aim is to assess the scope of policy objectives, implementation tools, and strategic vision related to digitalization, and to evaluate their significance within the broader context of Türkiye’s development agenda. Employing a qualitative research approach, the study utilizes document content analysis, with data systematically coded and analyzed via MaxQDA software. The findings indicate that both strategic documents strive to position digital transformation and innovation at the core of national development. However, it is also observed that these goals often remain at a general and visionary level, with limited specificity in terms of implementation and performance metrics. Accordingly, the study offers policy recommendations to enhance the effectiveness of the digitalization vision embedded in these strategic frameworks.

Keywords: Digitalization, Innovation, Technological Transformation, Strategic Planning, Türkiye

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THE RELATIONSHIP BETWEEN ECONOMIC DEVELOPMENT AND AGRICULTURE: AN ANALYSIS ON TÜRKİYE

Ayşen BAKKALOĞLU⁴⁰

Abstract

This study provides a comprehensive theoretical and empirical evaluation of the role of the agricultural sector in economic development, with a specific focus on the case of Türkiye. Within the historical evolution of development, agriculture occupies a foundational position in the structural transformation from agriculture to industry and then to services. Despite its relative decline in developed economies, agriculture continues to serve as a strategic sector in developing countries by ensuring food security, generating employment, contributing to foreign exchange earnings, and supplying raw materials to industry.

The study first elucidates the concept of economic development in its multidimensional form, and then analyzes the contribution of agriculture to this process in light of historical, theoretical, and statistical data. Focusing specifically on Türkiye, the paper thoroughly examines agriculture's contribution to GDP, its role in sectoral transformation, its share in employment, and its contribution to export revenues from the early years of the Republic to the present day. The data indicate that the reduction of agricultural subsidies following the liberal policies of the post-1980 period has had adverse effects on the sector.

In conclusion, agriculture remains an indispensable pillar of economic development in Türkiye. To fully harness its potential, there is an urgent need for holistic agricultural policies that are sustainable, inclusive, technology-driven, and oriented toward rural development.

Keywords: Economic Development, Agricultural Sector, Turkish Economy, Structural Transformation, Rural Development, Agricultural Policies.

IOT-BASED APPROACHES TO SOLVING PROBLEMS IN DIGITAL AGRICULTURE

Zeliha SEZER ERGİN⁴¹¹

Abstract

Global population growth, climate change and the depletion of natural resources require agricultural production to be more efficient and sustainable. The integration of digitalization into the agriculture sector offers significant opportunities to use resources more efficiently, reduce environmental impacts and increase productivity. The Internet of Things has the potential to revolutionize agricultural practices, leading to the development and implementation of various IoT-based solutions aimed at addressing critical challenges in modern agriculture. The rise of the Internet of Things has ushered in an era of data-driven, precision and smart agricultural practices, transforming the industry from traditional statistical methods to quantitative approaches. IoT-based systems equipped with sensors contribute to improving productivity, resource utilization and farm management in smart agriculture. Smart systems facilitate real-time monitoring of field conditions, enabling farmers to make informed decisions based on accurate data, increasing productivity and sustainability. Furthermore, IoT's ability to connect physical objects, embedded sensors and software over the internet provides reliable solutions in various fields, reducing human intervention and optimizing resource use. This study focuses on Internet of Things (IoT)-based technologies used in solving the challenges faced in digital agriculture. The aim of the study is to examine the relationship between smart technologies such as IoT, big data, artificial intelligence, cloud computing and Industry 4.0 and digital agriculture practices.

Keywords: Digital Agriculture, Internet of Things (IoT), Industry 4.0

THE RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENT INFLOWS, EMPLOYMENT, AND ECONOMIC GROWTH IN TÜRKİYE: AN ECONOMETRIC ANALYSIS

Ahmet ŞAHBAZ⁴², Osman TAŞTEMİR⁴³, Ayşe CEYLAN⁴⁴

Abstract

Globalization has been steadily increasing since the 1980s. Through globalization, economic, commercial and technological boundaries between countries have largely disappeared. With the impact of globalization, the capital needed by developing countries has increasingly been provided through direct foreign capital investments. Insufficient domestic savings in these countries prevent investments in the country from being realized at a sufficient level and therefore posing an obstacle to economic growth. This situation has led to an increased interest in foreign direct investment in developing countries. On the other hand, foreign direct investment stand out not only as a source of capital for the country where the investment is made, but also with their employment-increasing effects. In this context, foreign direct investment are considered as a factor that increases economic growth for developing countries. In this study, the relationship between foreign direct investment, employment and economic growth was analyzed in Türkiye, one of the countries experiencing capital and enterprise insufficiency. The aim of the study is to uncover the causality between foreign direct investment, employment and economic growth in Türkiye between 1990-2023. Within the scope of the analysis, the existence of long-term relationships was determined by the Johansen cointegration test; the direction of the causality was examined by the Granger causality test based on the Vector Error Correction Model (VECM). According to the findings, it was concluded that there was a one-way relationship from economic growth to foreign direct investment and from employment to economic growth. On the other hand, no significant relationship was found between foreign direct investment and employment.

Keywords: Foreign Direct Investments, Employment, Economic Growth, Time Series, Granger Causality.

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THE SIGNIFICANCE OF GLOBAL UNCERTAINTIES ON STOCK MARKETS: THE CASE OF BORSA ISTANBUL

Elif Hilal NAZLIOĞLU⁴⁵

Abstract

Events that cause fluctuations in the global economy and shape markets create uncertainties and risks for real and financial markets. The increasing financial integration associated with globalization and the sudden reactions of investors to economic, political and geopolitical uncertainties have a direct impact on economic and financial dynamics. Global uncertainties have a significant impact on the consumption, savings and investment decisions of consumers, households and/or investors, while also having a negative impact on the wider economy. Especially after the 2000s, the increase in global uncertainties and risk-creating events, such as the 2008 global economic crisis, the Covid-19 pandemic in 2020 and the Russia-Ukraine war in 2022, have had an impact on financial markets. The measurement of global uncertainties through indices and their transformation into an indicator has contributed to the study of the relationships between uncertainties and stock markets in academic literature and to the analysis of research questions related to this area. The aim of this study is to empirically analyze the relationships between global economic policy uncertainty (GEPU), monetary policy uncertainty (MPU), geopolitical risks (GPR) and the stock market (BIST100) in Türkiye, an emerging market with a fragile economy. According to the results of studies in the literature, global uncertainties and stock markets are generally related, and uncertainties have an impact on stock markets. The study uses monthly data from January 2006 to June 2024 to perform time-series impulse response, variance change and Granger causality analyses.

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THE RELATIONSHIP BETWEEN FINANCIAL STABILITY AND SUSTAINABLE GROWTH: THE CASE OF TÜRKİYE⁴⁶

Baki DEMİREL⁴⁷, Zeynep USLU⁴⁸

Abstract

From past to present, the wheels of the economy have continued to turn without interruption. Throughout history, various schools of economic thought and policies have left their mark on different eras as a result of countless wars, migrations, crises, and transformations. Within this continuously operating system where economic actors participate rationally and actively in the markets, it has become evident that capitalism inherently generates numerous problems. In addition to the real economy, the existence and impact of financial markets on the economic system have introduced the concept of financial stability into the literature. Alongside environmental and economic sustainability, financial sustainability has also become essential for ensuring that the economic system functions like a well-oiled machine in the long term and without disruption, particularly under evolving global conditions.

The Financial Instability Hypothesis, proposed by Minsky, a key figure in the Post-Keynesian School, addresses the conditions under which financial instability arises and offers policy recommendations for an unstable economy. This study analyzes whether the assumptions of Hyman P. Minsky's Financial Instability Hypothesis are applicable to the Turkish economy. As a secondary objective, the study also questions the existence or absence of a relationship between financial stability and sustainable growth in the context of the Turkish economy. In this regard, the discussion of environmental, social, and economic sustainability concepts and their interrelationships has been a significant motivation for the research.

Keywords: Financial Instability Hypothesis, Financial Instability, Financial Sustainability

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FINANCIAL INDICATORS AND BANK CREDITS AS DETERMINANTS OF ECONOMIC GROWTH: COMPARATIVE EVIDENCE FROM Türkiye AND CHINA

Sümeyya ALTUNTAŞ⁴⁹

Abstract

This study investigates the effects of bank credits, exchange rate changes, and inflation changes on economic growth for Türkiye and China over the period 2005–2021 using a panel data analysis approach. The fixed effects model (FEM) was employed, and country-specific differences were analyzed through the inclusion of interaction terms. Economic growth (Y) was used as the dependent variable, while bank credits (BC), exchange rate changes (EX), and inflation changes (INF) were considered independent variables. Data were obtained from reliable international sources such as the World Bank and IMF, and were standardized on an annual basis after necessary adjustments. The findings reveal that bank credits positively influence economic growth, with a stronger effect observed in China compared to Türkiye. Exchange rate changes support growth in both countries, while inflation changes exhibit a growth-limiting effect particularly in Türkiye. The stronger impact of bank credits in China is attributed to investment-oriented credit usage, whereas in Türkiye, the effect remains more limited due to consumption-oriented credit utilization and macroeconomic instability. Policy recommendations suggest that Türkiye should direct bank credits toward productive sectors, maintain strict anti-inflationary measures, and sustain a competitive exchange rate environment. For future research, it is recommended to extend the study with longer time periods, conduct sectoral analyses, and include additional macroeconomic variables such as investment ratios and external trade balances.

Keywords: Financial Markets, Banking, Economic Growth.

THE IMPACT OF TRANSPORTATION INFRASTRUCTURE PROJECTS FINANCED BY PUBLIC-PRIVATE PARTNERSHIP MODEL ON FOREIGN DIRECT INVESTMENT: THE CASE OF DEVELOPING COUNTRIES

Bedirhan CULFA⁵⁰, Güneş TOPÇU⁵¹

Abstract

The purpose of this study is to examine the impact of transportation infrastructure projects financed through public private partnership (PPP) on attracting foreign direct investment (FDI) in developing countries. PPP method is a preferred financing method as it shortens the project period and acts as a solution to financial difficulties faced by the public sector due to insufficient funds. Transportation infrastructure is a type of infrastructure that serves regional development and allows the uninterrupted operation of supply chains. Since the early periods of history, transportation corridors have played a major role in countries' trade with each other. The sample of the study is composed of 24 developing countries. The data spans the period from 2006 to 2022, and it is analyzed with the Random Effects model. While the dependent variable and the independent variables are FDI inflows to developing countries as a percentage of gross domestic product and transportation infrastructure projects financed through PPP, respectively, the control variables are gross domestic product per capita, political stability, corporate tax, openness rate, exchange rate, and inflation rate. Since cross-sectional dependency and heteroscedasticity problems arise in the data, regression parameters are estimated with the Driscoll-Kraay (1998) standard errors. According to the empirical results, the impact of infrastructure projects financed through PPP on FDI is significant and positive. In line with this result, it can be concluded that the PPP project financing model can be used as an alternative financing model in transportation projects to attract FDI.

Keywords: Public Private Partnership, Transportation Infrastructure, Foreign Direct Investment, Developing Countries, Regional Development

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VALUATION OF INFLATION ACCOUNTING PRACTICES BY
ACCOUNTING PROFESSIONALS

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Abstract

The aim of the study is to investigate how inflation accounting practices are evaluated by accounting professionals. In this context, the views of accounting experts regarding inflation accounting have been examined. The research applies a descriptive survey model, which is one of the quantitative research methods. The population of the study consists of accounting professionals working in the city of İzmir. The sample of the study is composed of 305 accounting professionals, selected using a random sampling method. The data collection tool used in the study is a questionnaire developed by the researchers. Descriptive and content analysis was performed on the data obtained in the study. The findings of the research indicate that inflation accounting practices are generally evaluated negatively by accounting professionals. In conclusion, it is understood that the current state of inflation accounting practices creates additional workload for both taxpayers and accounting professionals, and has negative effects on the status of commercial activities. Based on the participants' suggestions, developing a simpler and more understandable system would increase the efficiency of the practice and reduce uncertainties in the sector.

Keywords: Inflation, Accounting, Inflation Accounting, Accounting Profession.

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ACCEPTANCE OF E-LEDGER APPLICATION IN THE ACCOUNTING PROFESSION WITHIN THE FRAMEWORK OF THE THEORY OF PLANNED BEHAVIOUR: A FIELD STUDY ON ACCOUNTING PROFESSIONALS

İlyas TURĞAY⁵⁴

Abstract

Today, the rapid pace of technological change stands out as a significant reality. However, users often find it challenging to adapt to this fast-paced process of change and transformation. The process of becoming accustomed to a new application and forming an intention to use it can be influenced by a combination of various factors. In determining the intention to use a new technology or technological application, theories derived from the Theory of Reasoned Action are commonly utilized. Among these, the most frequently employed theoretical models in the academic literature are the Technology Acceptance Model and the Theory of Planned Behaviour. Accordingly, the theoretical framework of this study is grounded in the Theory of Planned Behaviour.

The aim of this research is to determine the intention of accounting professionals to use the e-Ledger application, implemented by the Turkish Revenue Administration within the context of digital transformation, using the Theory of Planned Behaviour as the analytical framework.

The sample of the study consists of accounting professionals operating in Istanbul, and data were collected through a questionnaire. While a significant portion of the questionnaire responses was gathered online, some were obtained through face-to-face administration. A total of 646 responses were collected.

The data were analysed using the partial least squares structural equation modelling (PLS-SEM) method via the SmartPLS 4 software, and seven research hypotheses were tested. Six of these hypotheses were accepted, while one was rejected. An evaluation of the model's fit, along with reliability and validity criteria (Cronbach's Alpha, composite reliability, AVE, Fornell-Larcker, HTMT), indicated that the model is both valid and reliable.

According to the analysis results, all variables except perceived behavioural control were found to have a strong influence on the intention to use the application. Among these, the variable of behavioural attitude exhibited the strongest effect, suggesting that it may serve as a key antecedent of usage intention. Furthermore, in the examination of indirect relationships to reveal the mediating effects of variables on usage intention, it was observed that perceived behavioural control affects intention to use through behavioural attitude, and this effect is positive.

The findings of this study are expected to provide significant theoretical and practical contributions to understanding the level of acceptance of the e-Ledger application, introduced by the Revenue Administration, among accounting professionals.

Keywords: Theory of Planned Behavior, e-Ledger, intention to use, intention to use the e-Ledger application.

FORENSIC ACCOUNTING IN ACADEMIC LITERATURE: A RESEARCH ON WOS INDEX

Özgür ÖZDEMİR⁵⁵

Abstract

Forensic accounting is a multidisciplinary field that integrates accounting, auditing, and investigative methods to detect and deter financial crimes and assist in judicial proceedings. Forensic accounting is influenced by a robust academic framework and analytical methodologies to uncover financial misconduct. Forensic accountants analyze financial information, identify dubious transactions, and offer professional assistance in judicial proceedings. The discipline of forensic accounting seeks to promote justice by uncovering financial discrepancies. This research intends to assist future researchers in the domain of forensic accounting. The study seeks to enhance scientific understanding of forensic accounting and was undertaken to inform future research and augment knowledge in the discipline. Two hundred forty-nine papers in the subject of “Forensic Accounting” were analyzed utilizing the WOS Viewer application within the WOS database. The tests done based on data collected on 05.03.2025 revealed that research in this sector has seen significant fluctuations, particularly in recent years. Analysis of citation and co-authorship data reveals that research conducted in the USA, Jordan, and Malaysia has emerged as predominant in the field in recent years. The keyword analysis indicates that “Forensic Accounting” is predominantly linked to the notions of “Fraud” and “Fraud Detection”.

Keywords: Forensic Accounting, Fraud Detection, Index Analysis.

AN OVERVIEW OF SHARE-BASED CROWDFUNDING IN Türkiye

Nihan CABA⁵⁶

Abstract

Share-based crowdfunding is the process of financing an idea or an initiative by raising money from a large number of investors through platforms that provide services in electronic media for the funds needed by a project or a venture company, and in return, owning shares that give partnership rights. This process, which started in our country in 2019 with the Communiqué on Share-Based Crowdfunding, continues to develop and the number of platforms listed to operate increases every year. Following the listing of Vakıf Investment Securities Inc. by the Capital Markets Board (CMB) in 2021, a total of eighteen platforms operate in this field today, with the participation of other companies in successive periods.

This study aims to provide information about the functioning of share-based crowdfunding in Türkiye and to provide a perspective to venture companies seeking financial resources for their projects and investors who want to provide the funding needed for these projects. While the study aims to contribute to the academic field with its scope, it also offers an alternative for investors to utilise their savings. In order to achieve this objective, the share-based crowdfunding process is discussed and the conditions sought in this process and the rights and obligations of the parties are explained.

In conclusion, it has been determined that in share-based crowdfunding transactions, investors have rights to receive information and dividends in addition to share ownership, not every project idea is funded within this scope, and the financing obtained after raising funds as a venture company must be used in innovative technology or production activities.

Considering the importance of technology development in terms of economic development, it is possible to say that share-based crowdfunding activities will have positive effects in our country. It is thought that this practice, which brings entrepreneurs and investors together, will be beneficial by providing support to projects that have a high chance of success but are waiting to be realised due to their cost.

Keywords: Financing, Venture Company, Share-Based Crowdfunding, Project, Capital Markets Board (CMB)

AN INVESTIGATION OF FINANCIAL RISK IN BUSINESSES WITH BEAVER MODEL

Nihan CABA⁵⁷

Abstract

Every business that continues its activities has the risk of facing financial difficulties due to various factors. Financial risk is related to many different risks and refers to the possibility of negative situations that may lead to bankruptcy in enterprises if no measures are taken. For this reason, enterprises should regularly review their financial risk status and be prepared to minimise potential losses that may occur.

Trade enterprises have a large share in maintaining economic vitality. In order to ensure stability in financial markets and to prevent interruption of services, it is very important that trade enterprises, which are among the main actors of economic activities, are financially strong. The aim of this study is to analyse retail trade enterprises trading in the BIST Services Index in terms of financial risk. In order to achieve this objective, ten enterprises whose financial statements are available in the specified time interval over the annual data for the period 2020-2024 are included in the sample. The Beaver Model was used to measure the financial risk in the enterprises and analyses were performed on six different financial ratios.

According to the results obtained from the analysis, although sufficient cash flow was generally realised in enterprises, 2020 was a risky year for most enterprises in terms of cash flow. Enterprises preferred to borrow rather than holding cash assets and net working capital was found to be negative in more than half of the enterprises. Since a healthy business needs to be sufficiently liquid, it has been observed that most of the enterprises may have difficulties in meeting their short-term liabilities. It has been determined that enterprises earn low profits from their assets and most enterprises are under financial risk by focusing on debt financing method in asset acquisition.

When evaluated on a sectoral basis, since the essence of retail trade enterprises is the relationship between debt and receivables, borrowing at certain rates can be accepted as normal. Enterprises will be able to achieve better financial results by paying attention to asset management, timely collection of receivables and increasing profitability.

Keywords: Beaver Model, BIST Services Index, Financial Risk, Bankruptcy, Retail Trade

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MODELLING OF NON-PERFORMING LOANS AND LOANS UNDER CLOSE MONITORING: A PANEL DATA ANALYSIS ON THE TURKISH BANKING SYSTEM

Özgür ÖZEL⁵⁸, Murat MAHMUTOĞLU⁵⁹

Abstract

Along with non-performing loans, loans under close monitoring have also become an important indicator of the asset quality of banks in recent years. In the study, the ratio of problematic loans to total loans, which represents the sum of these two groups of loans, is called the risk ratio. The risk ratio better explains the credit risk accumulated in the sector in recent years. The aim of the study is to analyze which factors are primarily at the source of the change in risk ratio in the Turkish banking sector in a holistic manner. As a result of the panel vector autoregressive analysis created with the quarterly data of the ten largest deposit banks in Türkiye in terms of asset size between 2010-2024, the sector's risk ratio is examined with Granger causality, variance decomposition and impulse-response functions. One of the main findings of the study is that risk ratio and the percentage change of loan interest rate Granger cause each other. The second finding is that the change in the variance of the risk ratio is explained more by the lags of the credit-deposit ratio than by its own lags. The third finding is that the change in the variance of the capital adequacy ratio is explained more by the lags of the risk ratio than by its own lags.

Keywords: Credit Risk, Loans Under Close Monitoring, Risk Ratio, Panel Vector Autoregressive Analysis.

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TIME VARIATION OF SYSTEMATIC RISK IN THE BANKING SECTOR: EVIDENCE FROM A DYNAMIC FACTOR MODEL

Şaban NAZLIOĞLU⁶⁰, Şevket PAZARCI⁶¹

Abstract

The aim of this study is to examine whether the systematic risk generated by the stock returns of the banking sector traded on the Borsa Istanbul has a time-varying behaviour. To this end, a dynamic factor model with time-varying variances is estimated and variance decomposition is obtained for stock returns traded in the banking sector for the period 2009:01-2024:12. The empirical results show that systematic risk has a different impact on the stock returns of each bank. Moreover, the impact of systematic risk on stock returns changes over time for each stock. As a result, the study provides new insights on the Turkish banking sector by providing evidence on the systematic risk behaviour changing over time.

Keywords: Systematic Risk, Banking Sector, Dynamic Factor Model, State-Space Method

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A CONTENT ANALYSIS OF SUSTAINABILITY-FOCUSED SERVICES IN THE TURKISH BANKING SECTOR

Vahdet ALTUNDAL⁶², Revşan AYDOĞAN⁶³

Abstract

Countries want to combat global environmental problems and climate change more effectively by making legal regulations. In this context, sustainability policies and, accordingly, sustainable financing instruments have begun to gain more importance in the finance sector, as in many other sectors. The Turkish banking sector has diversified its sustainability-focused products as part of this transformation and integrated the concept of sustainability into its financial product portfolios, offering credit and investment products for both individual and corporate customers.

In this study, the sustainability policies of the top 10 banks in Türkiye according to their asset size and the sustainable products and services they offer to their customers were examined using the content analysis method. When the findings obtained from the study were examined, it was seen that all of the banks in the top ten according to their asset size have sustainability policies, offer at least 3 and at most 21 products and services focused on sustainability, and take some incentive measures regarding the dissemination of these products and services.

These measures are presented as offering more favorable borrowing conditions compared to other banking products and benefiting from some banking services free of charge. While the services provided by banks with a focus on sustainability are basically divided into two groups, specific to individual and corporate customers, when all services provided are classified with relevant keywords, they are grouped under 5 main headings. These can be classified as renewable energy loans, energy efficiency loans, green consumer loans, social and thematic sustainability loans and sustainable investment and fund instruments.

In light of all this information, it is seen that large-scale banks in Türkiye have started to offer various products and services to their customers by integrating sustainability principles into their service policies. However, monitoring sustainability loans in a more systematic framework, aiming to regularly increase the share of sustainability-labeled products and services in the total products and services offered, transparent reporting of the impact assessments of these products and services and public banks taking a more active role in this process will further increase the contribution of the sector in this area.

Keywords: Banking, Sustainability, Sustainable Finance.

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THE RISE OF DIGITAL FINANCE: THE EVOLUTION AND USAGE DYNAMICS OF MOBILE AND INTERNET BANKING IN Türkiye

Ali BAYRAKDAROĞLU⁶⁴, Çağatay MİRGEN⁶⁵

Abstract

This study aims to comparatively analyze the usage trends of internet banking and mobile banking, the two main components of digitalization in the Turkish banking sector. Based on quarterly data published by the Banks Association of Türkiye covering the period from 2006 to 2023, the study evaluates the number of active customers, the volume of financial transactions, and the transaction amounts for both digital channels. The findings reveal that, starting from 2016, mobile banking surpassed internet banking in terms of both the number of customers and the number of transactions. By the end of 2023, approximately 95% of digital banking transactions were conducted through mobile channels, while internet banking continued to maintain its relevance, particularly within the corporate customer segment. Furthermore, it was observed that payment and credit card transactions were predominantly carried out through mobile banking platforms, and that mobile banking had gained significant prominence in investment transactions, although internet banking remained widely used. In this context, the study provides a comprehensive assessment of the impact of digitalization on banking services, offering valuable contributions to the field.

Keywords: Digital Banking, Mobile Banking, Internet Banking, Financial Transactions

64 Prof. Dr., Muğla Sıtkı Koçman University

65 Asst. Prof. Dr., Milli Savunma University

WHAT HAS HAPPENED TO TURKISH ECONOMY AFTER 2017? THRESHOLD MODELS APPROACH

Nuri UÇAR⁶⁶, Baki ÜNAL⁶⁷

Abstract

We have built mixture VAR model and Multivariate threshold VAR models to analyse the higher inflationary period between 2017 and 2024 for Türkiye. We have investigated that how a set of macroeconomic variables effect the tendency of Turkish inflation when shocks are injected to the threshold VAR models. We have observed that the variables energy prices and budget balance are the main determinants of Turkish inflation instead of changes in wages and exchange rates. Furthermore, we have look for the relationship between interest rate and inflation in terms of causal direction via reduced form of VAR models. We conclude that there is no causality through the direction from interest rate to inflation

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ACADEMIA IN THE AGE OF ARTIFICIAL INTELLIGENCE: TRANSFORMING EDUCATION AND RESEARCH

Emine ABANOZ⁶⁸, Gülden ÜLGEN⁶⁹

Abstract

The use of artificial intelligence (AI) has surged in recent years, expanding its application across a wide range of sectors. AI's integration into higher education has begun to spread, bringing profound changes to teaching and learning processes. This study examines the economic and professional transformation triggered by AI technologies in Turkish higher education, drawing on discourse analysis of semi-structured interviews conducted with 30 academics. The analysis identified six thematic axes: concern, ethics, economic efficiency, professional transformation, inequality, and expectations. Findings show that these themes interact cyclically, collectively steering the transformation process. Participants highlighted that robust technical infrastructure and continuous in-service training enhance instructional quality and, through personalized learning management systems, reduce costs while enabling more efficient resource allocation. However, the need to verify AI-generated content and the rising risk of plagiarism create new ethical oversight burdens, expanding administrative duties and deepening worries about academic originality. Regional disparities in digital infrastructure prevent productivity gains from diffusing evenly across institutions, underscoring the critical importance of publicly supported investment programs. The evolution of job descriptions toward “content curation” and “data analysis” is triggering a shift in academic employment structures, leading to flexible, competency-based positions that emphasize interdisciplinary skills. The study emphasizes that R&D incentives, the widespread adoption of open-access AI infrastructure, and the establishment of interdisciplinary ethics committees will accelerate the transformation. Ultimately, the economic benefits of AI-driven innovations depend on achieving a balance among human-capital investment, ethical governance, and infrastructure equity.

Keywords: Artificial Intelligence, Academic Employment, Economic Efficiency, Professional Transformation, Ethical Responsibility

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69 Prof. Dr., İstanbul University

THE IMPACT OF THE GROWING USE OF ARTIFICIAL INTELLIGENCE ON FINANCE-SECTOR EMPLOYEES

Ömer Burak YEL⁷⁰, Gülден ÜLGEN⁷¹

Abstract

The concept of work has been defined in various ways throughout history, shaped by social, economic, and technological changes. In particular, advances in technology have led to profound transformations in work structures. Within this context, the use of artificial-intelligence (AI) technologies has become a key factor deeply affecting working life. As AI is integrated into the world of work, certain occupations lose their value while new employment areas emerge. This study aims to examine, through a qualitative approach, how AI-based automation influences employees' perceptions and expectations in Türkiye's finance sector. Semi-structured interviews were conducted with thirty professionals selected from banking, insurance, and capital-markets institutions, and the data were analyzed using discourse analysis. Six core themes were identified: (1) employment and job security, (2) working conditions and workload, (3) professional development and competencies, (4) career expectations, (5) ethics and data security, and (6) the psychological effects of human-machine interaction. Most participants acknowledged that AI facilitates work processes; however, they also reported heightened ethical concerns and a growing sense of insecurity about the future. Although AI accelerates workflows—often leading to longer working hours—the reduction of human contribution creates negative emotional effects on employees. In conclusion, while the use of AI brings positive transformations to job structures, the uncertainties it introduces can adversely affect employees' professional anxieties.

Keywords: Artificial Intelligence, Automation, Finance, Work Structure, Ethics

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71 Prof. Dr., İstanbul University

**GREEN EMPLOYMENT AND ECONOMIC RESILIENCE: THE
RESPONSE OF SUSTAINABILITY-BASED EMPLOYMENT POLICIES
TO CRISES**

Turgay MÜNYAS⁷², Nurevşan KUÇLU⁷³

Abstract

This study investigates the role of green employment in enhancing economic resilience in the face of global crises. Focusing on the post-COVID-19 period, it aims to evaluate the labor market performance of green sectors compared to non-green sectors across Türkiye and selected EU countries. Using a Difference-in-Differences (DiD) econometric approach, we estimate the causal effect of crisis periods on sectoral employment levels by distinguishing between green and non-green sectors. The empirical analysis is based on a simplified panel dataset covering the period 2018–2021, and includes control variables such as GDP per capita and public green investment ratios. The interaction term between green sector classification and the post-crisis period serves as the key variable for measuring resilience.

The results indicate that green sectors experienced less employment loss and faster recovery during the crisis, relative to other sectors. This finding underscores the dual function of green employment—not only as a tool for ecological sustainability but also as a stabilizing force in labor markets. The study concludes that targeted green labor policies, especially those supported by public investment and skills development programs, are critical for building economically resilient and sustainable labor markets in the context of future environmental or macroeconomic shocks.

Keywords: Green Employment, Economic Resilience, Sustainability, Labor Markets, Crisis Response

72 Assoc. Prof. Dr. İstanbul Okan University

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LOST WEALTH IN THE STRAITS: THE EFFECT OF BOSPHORUS PASSAGE FEES ON FOREIGN DEBT AND CURRENT ACCOUNT DEFICIT

Mehmet ALAGÖZ⁷⁴, Hilal PAKSOY⁷⁵

Abstract

While Türkiye is trying to reduce its external financing needs based on debt in line with its sustainable development goals, it is not able to use its strategic resources effectively enough. One of these resources is the Bosphorus transit fees. There are serious differences between the transit fees that Türkiye should collect within the framework of the Straits Convention and those actually collected. It has been determined that Türkiye has lost a total of 125 billion dollars in revenue between 2004 and 2023. This loss increases the external borrowing and interest burden, and is reflected in the society as a high cost of living. The calculations show that if the revenue that should be obtained from the Straits is collected in full, the country's short-term public external debt burden (75.6% on average per year) can be alleviated and the current deficit (19% on average per year) can be reduced without the need for any borrowing. In addition, if the lost potential income is converted into investment, it clearly shows that new employment opportunities can be created for hundreds of thousands of Turkish people in the service, manufacturing, mining and agriculture sectors. This situation shows that the effective management of strategic resources is of great importance not only financially but also socially. The study primarily reveals the impact of maritime trade revenues on external debt and current account balance macroeconomic indicators and emphasizes that economic stability can be strengthened by reorganizing the Bosphorus tolls. Türkiye's effective use of its strategic resources offers a critical opportunity in terms of economic independence.

Keywords: Bosphorus Transit Fees, External Debt, Current Account Deficit, Economic Stability

74 Prof. Dr., Selcuk University

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TESTING THE SUSTAINABILITY OF CURRENT ACCOUNT IN OECD COUNTRIES: DOES THE FOURIER NON-LINEAR QUANTILE UNIT ROOT APPROACH MATTER?

Asım KAR⁷⁶, Emre KILIÇ⁷⁷, Şevket PAZARCI⁷⁸

Abstract

Although OECD countries present an optimistic outlook for the global economy, they warn of significant risks. The deficit in the current account (CA) and the sustainability of this deficit are among these risks. The sustainability of imbalances in the CA comes to the fore rather than the high level of CA deficit. In this paper, we examine the sustainability of the CA balance in 33 OECD countries through unit-root tests. First, we test the null hypothesis that the CA contains a unit root against various alternative hypotheses implying sustainability in conventional unit root tests and observe that the CA does not follow a mean-reversion behaviour. We then compare the conventional tests with quantile unit root testing approaches to investigate whether current quantile approaches are a useful indicator for the mean-reversion behaviour and sustainability of the CA series. Empirically, we find that unlike conventional unit root tests, the Fourier non-linear quantile (FNQKS) unit root test, which simultaneously considers nonlinearity, non-normality and smooth breaks, supports the stationary CA hypothesis for more countries. Another important finding is that the evidence in favour of the sustainability of CA increases significantly after accounting for the asymmetric structure with the FNQKS approach.

Keywords: Current Account; Sustainability, OECD, Asymmetry

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ECONOMIC GROWTH, FINANCIAL DEVELOPMENT AND TRADE OPENNESS IN FRAGILE FIVE COUNTRIES: INSIGHTS FROM A FRESH PANEL CAUSALITY TEST

İlhan KÜÇÜKKAPLAN⁷⁹, Osman VAROL⁸⁰

Abstract

This paper empirically examines the direction of causal relationships between financial development and economic growth in the Fragile Five countries within a framework that takes international trade into account. In the study conducted with annual data for the period 1985-2021, the Financial Development Index developed by the IMF was used to capture different dimensions of financial development. Findings from the panel Toda & Yamamoto causality analysis support the “finance-led” growth hypothesis and show that financial development is the cause of trade openness. In contrast, we use the panel causality method proposed by Nazlioglu & Karul (2024), which takes into account the common factor structure in panel data with both cross-sectional dependence and heterogeneity. Under the common factor structure, the causal relationships obtained from the Panel Toda & Yamamoto test disappear, but we find causality from economic growth to trade openness. Overall, the empirical results suggest that trade openness has no causal effect on economic growth and there is no causal link from economic growth to financial development.

Keywords: Economic Growth, Financial Development, Trade Openness, Panel Causality, Common Factor

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COMMODITY PRICES AND EXCHANGE RATE PASS-THROUGH: EMPIRICAL EVIDENCE FROM EMERGING MARKETS AND ADVANCED ECONOMIES

Şaban NAZLIOĞLU⁸¹, Doğukan TARAKÇI⁸²

Abstract

Global fluctuations in oil and food prices play a critical role in shaping inflationary pressures, especially in emerging market economies. When combined with exchange rate volatility, commodity price shocks can affect domestic inflation both directly—through cost-push mechanisms—and indirectly, via inflation expectations and second-round effects. Recent increases in energy and agricultural commodity prices, driven by global supply-demand imbalances and geopolitical tensions, have intensified the need to understand how such shocks are transmitted to consumer prices. This study investigates the pass-through of oil and food price shocks to inflation across a set of selected countries, with a particular focus on the interaction with exchange rate pass-through. The analysis is conducted using the Global Vector Autoregression (GVAR) framework, which allows for modeling both domestic dynamics and international interdependencies. By accounting for cross-country spillovers and simultaneous linkages, the GVAR approach offers a comprehensive tool to assess how external price shocks transmit through global and national inflation channels. The findings reveal that pass-through effects vary across countries and are largely shaped by factors such as monetary policy frameworks, exchange rate regimes, and economic structures. Oil price shocks are found to be statistically significant in all advanced economies. Moreover, oil shocks significantly affect nearly all countries, and there appear to be no broadly generalizable differences in responses between advanced and developing economies. In contrast, food price and exchange rate shocks tend to have stronger and more persistent effects on inflation in developing countries. In this context, effectively managing shocks stemming from energy and food prices remains a key policy priority for countries pursuing inflation targeting strategies.

Keywords: Pass-Through, Global VAR, Inflation, Commodity Prices, Exchange Rate

81 Prof. Dr., Pamukkale University

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THE IMPACT OF FOSSIL FUEL CONSUMPTION ON ECOLOGICAL FOOTPRINT: AN APPLICATION FOR SELECTED EU MEMBER STATES FOR THE PERIOD 1981-2022

Leyla BAŞTAN TÖKE⁸³

Abstract

This study investigates the impact of fossil fuel consumption on the ecological footprint in selected EU member countries using annual data from the period 1981-2022. Within the scope of the research, data from the top 6 countries with the highest fossil fuel consumption in 2022 and 2023, namely Germany, France, the Netherlands, Spain, Italy, and Poland, were used. In the empirical analysis, the ecological footprint was identified as the dependent variable, while oil consumption, natural gas consumption, and coal consumption were identified as independent variables. We first applied an inter-unit correlation test to estimate the appropriate model for the study's dataset. Then, using advanced tests for panel data, it was found that the data series are stable after the first level of testing. In the next step, the model's correlation between units was checked using the Breusch-Pagan LM test, and the similarity of the units was tested with Pesaran and Yamagata's Δ and Δ_{adj} tests, along with the Swamy S test. Since the model showed inter-unit correlation and differences among units, second-generation Pedroni and Westerlund cointegration tests were performed, which found a long-term relationship between the variables. The final model was estimated using the Mean Group Dynamic Ordinary Least Squares (MG-DOLS) Estimator. Empirical results have shown that oil and natural gas have the same impact on the ecological footprint, while the impact of coal is lower.

Keywords: Ecological footprint, Fossil fuel consumption, Environmental sustainability, Panel data analysis

ASSESSING THE RELATIONSHIP BETWEEN ECOLOGICAL FOOTPRINT AND GREEN INNOVATION IN SUSTAINABLE DEVELOPMENT: EMPIRICAL EVIDENCE FROM TOP 30 GREEN INNOVATION COUNTRIES

Sevilay KONYA⁸⁴

Abstract

The concept of green innovation is extremely important in terms of ensuring sustainable development, reducing carbon footprint and ensuring environmental balance. In this context, the current article aims to investigate the relationship between ecological footprint and green innovation in achieving sustainable development in the top 30 green innovative countries from 1993 to 2022. Several advanced panel data analysis methods and moments quantile regression (MMQR) methods were used to obtain estimates appropriate for the data set. As a result of the AMG estimator, it is found that economic growth and green innovation increase the ecological footprint. In addition, as a result of the MMQR estimator, it was determined that the impact of renewable energy consumption and green innovation on the ecological footprint was negative in all quantiles. There is bidirectional causality between ecological footprint and green innovation, ecological footprint and economic growth, ecological footprint and urbanization. In light of the findings, this study presents important findings in terms of sustainable development.

Keywords: Green innovation, Sustainable development, ecological footprint, panel data

TOWARDS SUSTAINABLE DEVELOPMENT: CAN INDUSTRIAL INTELLIGENCE FOSTER THE REDUCTION OF CARBON EMISSIONS?

Mehmet Ali POLAT⁸⁵, Burak CORUH⁸⁶

Abstract

As a result of unconscious development, environmental problems have been deepening, while the rapid progress of technology has increasingly attracted countries' interest in the concept of sustainability. Environmental issues such as climate change, biodiversity loss, and pollution caused by industrial activities have made radical transformation in this area inevitable. The use of smart robots and artificial intelligence in the industrial sector with Industry 4.0 plays a key role in the transformation of industrial intelligence. Increasing industrial intelligence maximizes resource efficiency in production processes, significantly reducing energy consumption and leading to a decrease in carbon emissions. Considering countries' production volumes, the potential of increasing industrial intelligence to reduce carbon emissions is undeniably substantial. Despite the potential of this field, the scarcity of studies in the literature has drawn attention. This study aims to deeply analyze the multifaceted impacts of industrial intelligence on reducing carbon emissions. It concludes that industrial intelligence could serve as a significant tool in lowering the dangerous levels of carbon emissions and aiding countries in achieving sustainable development goals. However, it will not be possible to leverage this tool's potential solely through technological advancements. Supportive public policies, fostering collaborations among industrial stakeholders, and raising sustainability awareness will also be required. Key Words: Sustainable Development, Industry 4.0, Carbon Emissions.

Keywords: Sustainable Development, Industry 4.0, Carbon Emissions.

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EXPORT MARKETING: A BIBLIOMETRIC ANALYSIS WITH VOSVIEWER

Mine ÜZÜMCÜOĞLU⁸⁷

Abstract

This study aims to systematically map and assess the intellectual structure of export marketing research and its development over time. The primary objective is to identify the main themes, influential authors, journals and trends and thus guide future research directions and policy formulation in the field of export marketing. The study covers articles in the Social Sciences Citation Index-SSCI (Social Sciences Citation Index) in which the keyword “export marketing” appears in the Web of Science database. Bibliometric analysis was performed with the data obtained. While scanning, no year restriction was made and only English sources were examined. As a result of these criteria, the number of sources obtained was limited to 530. VosViewer software was used to visualize and analyze citation networks, keyword co-occurrences and bibliographic links between the collected articles. This approach enables the identification of research clusters, influential publications and emerging topics in the export marketing literature. The analysis reveals a significant growth in export marketing research, especially in recent years. The main themes identified include the internationalization process, dynamic capabilities, knowledge scarcity, social networks, export marketing strategies and performance relationships. The study emphasizes that a limited number of journals and authors account for the majority of influential publications. The findings suggest that export marketing has evolved into a mature and diverse research area with increasing methodological sophistication and breadth of topics. Bibliometric mapping provides guidance for academic studies by addressing recent developments in international trade and export marketing strategies.

Keywords: Export Marketing, International Trade, Bibliometric Analysis, VOSviewer

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THE USAGE OF CHATBOTS IN MARKETING AND ITS IMPACT ON CUSTOMER EXPERIENCE

Aziz Faisal Abdulaziz AHMED⁸⁸, Selda Başaran ALAGÖZ⁸⁹

Abstract

This study aims to examine the impact of chatbot usage in marketing on customer experience. In the research, chatbots were analyzed through two primary dimensions: “usability” and “interaction,” while customer experience was assessed based on “extrinsic values” and “intrinsic values.” Additionally, the study explored the moderating effects of chatbot usage frequency and sectoral differences on the relationships between chatbot dimensions and customer experience dimensions. To achieve the research objectives and address the study questions, 12 hypotheses were formulated to represent the relationships among the variables in the research model. To test these hypotheses, data were collected from a suitable sample of 424 customers of companies that utilize chatbots across various sectors in Türkiye. The data were obtained through an online survey. The findings of the study revealed that both chatbot usability and interaction have a statistically significant impact on both extrinsic and intrinsic values of customer experience. However, the results also indicated that neither chatbot usage frequency nor sectoral differences had a moderating effect on the relationship between chatbots and customer experience.

Keywords: Chatbot, Customer Experience, Intrinsic Values of Customer Experience, Extrinsic Values of Customer Experience.

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89 Prof. Dr., Necmettin Erbakan University

THE SERIAL MEDIATION ROLE OF GREEN SKEPTICISM AND GREEN WORD-OF-MOUTH COMMUNICATION IN THE EFFECT OF GREENWASHING ON GREEN PURCHASE BEHAVIOR

Merve MERT⁹⁰

Abstract

The primary aim of this study is to investigate the effect of greenwashing practices on consumers' green purchase intention within the framework of the serial mediating roles of green skepticism and green word-of-mouth communication. Within the scope of the research, the necessary data were collected through an online survey. SPSS statistical software was utilized for data analysis. Initially, the reliability and validity of the measurement instruments were evaluated. Accordingly, Cronbach's Alpha coefficient was used to determine internal consistency levels, and Confirmatory Factor Analysis (CFA) was conducted via AMOS 21 to assess the structural validity of the measurement model. Descriptive statistics and correlation analyses were carried out to examine the fundamental relationships between variables. In the final stage of the study, Hayes' Process Macro Model 6 was employed to test the serial mediation effects of green skepticism and green word-of-mouth communication. The findings revealed that greenwashing has a direct effect on green purchase intention, and this effect also occurs indirectly and significantly through the serial mediation of green skepticism and green word-of-mouth communication. This research provides theoretical contributions to the field of green marketing and offers practical implications for businesses in terms of strategic communication management.

Keywords: Greenwashing, Green purchase behavior, Green skepticism, Green word-of-mouth communication

WHAT WE KNOW ABOUT THE LITERATURE ON INSURANCE DEMAND: A BIBLIOMETRIC ANALYSIS

Ebru YAZICIOĞLU⁹¹

Abstract

Every day, the literature in this discipline expands to include a variety of topics and research related to the insurance sector. In this context, the number of publications in the Web of Science database has multiplied since 1990. One of the notable aspects of the insurance literature is that researchers touch upon curiosity regarding insurance demand. In this context, the aim of this study is to provide quantitative information about the current state of research addressing the demand for insurance. The study combined document and content analysis methods to extract the desired data from the Web of Science database. We did not impose any restrictions on the year when creating the dataset for the study. We determined the starting point to be 1989, the year of the first published article in the field of insurance claims. To access the most recent publications in this field, data from March 2025 has also been included in the analysis. While the Bibexcel program was used for the analysis of bibliographic data, the Vosviewer program was used for the mapping method. In this study, we selected the publication type as an article without any language restrictions, resulting in a total of 601 articles. We analyzed these articles using six parameters: authors, citations, keywords, journals, institutions, and countries. The analysis showed that articles about insurance demand in the Journal of Risk and Insurance are published often, and they usually include keywords like demand, risk, market, determinants, consumption, choice, and life insurance. Additionally, among the articles, it has been found that some publications in the fields of agricultural insurance demand, corporate insurance demand, flood insurance demand, life insurance demand, and health insurance demand received the highest citations among the studies examined.

Keywords: Insurance, Insurance Demand, Bibliometric Analysis

ANALYSIS OF THE INDIVIDUAL PENSION SYSTEM (IPS) AND CONSUMER BEHAVIOR: PARTICIPANT PROFILE, MOTIVATIONS, AND BARRIERS⁹²

Hasan ARDA⁹³

Abstract

This research focuses on the participant profile, motivations and functioning of the system in the context of examining the Individual Retirement System (BES) and consumer behavior. The main purpose of the study is to analyze in detail the behaviors of individuals who participate or are considering participating in BES, to determine the factors that are effective in shaping these behaviors and to suggest strategies that will increase the effectiveness of the system. In this context, the expectations, participation motivations, perceived advantages and obstacles of BES participants are discussed in detail. The research findings reveal the diversity of the demographic profiles of BES participants. The majority of the participants are between the ages of 35-54, and it has been observed that the system is preferred by working individuals. The majority of the participants are university graduates and it has been determined that they belong to an income group between 25,001-50,000 TL at most. This situation shows that the participation rate of individuals in the middle income group is higher in BES. The most prominent element among the participation motivations in BES is the aim of making long-term savings. Participants join this system to provide financial security and save after retirement. Although tax advantages are also among the reasons for preference, it was observed that state contribution was less effective than expected in participation decisions. Most of the participants stated that they did not experience any difficulties in the process of joining BES. However, factors such as bureaucratic obstacles, financial uncertainties and incomplete information may constitute an obstacle to participation for a small group. When the level of knowledge about BES is examined, it is seen that the majority of the participants have a medium level of knowledge. It is necessary to increase financial literacy and organize informative campaigns about BES. The issues that the participants are most concerned about about BES are the reliability of the system, the sustainability of the state contribution and the adequacy of fund returns. The interruptions experienced in case of early exit were evaluated as a factor that reduced the loyalty of the participants to the system. However, the majority of the participants evaluated their level of trust in BES as high. As a result of the research, a series of recommendations were developed in order to increase the prevalence of BES and ensure participant satisfaction. Increasing financial literacy, facilitating early exit procedures, improving fund returns and providing assurance about the sustainability of the state contribution are among the strategies that will increase the effectiveness of the system. In order to increase trust in BES and ensure its dissemination to wider audiences, information campaigns should be organized and the system should be made more transparent. This study provides findings that can guide policy makers and financial service providers in order to increase the effectiveness of BES and ensure that the system reaches wider audiences. The results obtained contribute to the process of developing long-term savings habits of individuals and enable BES to become a more efficient system in the future.

Keywords: BES, Consumer, Behavior, Participant, Motivation, Obstacle

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THE RELATIONSHIP BETWEEN FINANCIAL RISK INDICATORS AND THE STOCK MARKET IN Türkiye: AN ECONOMETRIC ANALYSIS ON BIST 100 AND CREDIT DEFAULT SWAPS (CDS)

Hatice BAŞKAYA⁹⁴, Abdullah ÖZDEMİR⁹⁵

Abstract

Credit Default Swaps (CDSs) are derivative instruments designed to hedge against the risk of default by sovereign or corporate borrowers. These instruments function similarly to insurance contracts, allowing investors in debt securities to protect themselves against potential credit events. CDS premiums serve as crucial indicators of perceived credit risk in global financial markets, as they reflect market participants' assessments of a borrower's likelihood of default. An increase in CDS premiums typically signals a heightened perception of risk, whereas a decrease suggests improved confidence in the borrower's creditworthiness. Given their informative nature, CDS premiums are closely monitored by various stakeholders, including credit rating agencies, institutional investors, policymakers, and portfolio managers. Their levels are influenced by multiple factors, such as macroeconomic stability, political developments, external debt levels, balance of payments dynamics, and fluctuations in global financial conditions. Particularly in emerging markets, CDS premiums play a significant role in capturing changes in country risk, investor sentiment, and financial fragility, making them a widely referenced measure in risk assessment and economic analysis. In this context, the present study investigates the long-term relationship between CDS and the BIST 100 index, which serves as a benchmark for the Turkish equity market. Utilizing monthly data spanning from December 2012 to March 2025, the analysis employs the nonlinear cointegration approach proposed by Kapetanios, Shin, and Snell (2006), supported by a bootstrap methodology to ensure robust inference. The empirical results indicate the presence of a statistically significant nonlinear cointegration relationship between CDS premiums and the BIST 100 index within the Turkish financial context. This indicates that market risk perception (CDS) plays a decisive role in the long-term performance of the BIST 100 index, and that investor behavior responds to economic uncertainties in a nonlinear manner.

Keywords: Borsa Istanbul 100, Credit Default Swaps, Bootstrap-KSS Cointegration Test.

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ANALYSIS OF REGIONAL FINANCIAL INTEGRATION: RALS-LM COINTEGRATION APPROACH ON BORSA ISTANBUL CITY INDICES

Aycan HEPSAĞ⁹⁶, Hatice BAŞKAYA⁹⁷

Abstract

The city indices constructed within Borsa Istanbul reflect the capital market performance of companies operating in different provinces of Türkiye, thus enabling the analysis of the spatial dynamics of financial structures at the regional level. Analyzing the financial integration processes across cities through these indices by examining long-term trends provides an important analytical framework for testing the regional financial convergence hypothesis. In this respect, the existence of long-run cointegrated relationships among city indices will be assessed using a monthly data set compiled for the period 2012:12-2024:12. Within the scope of the analysis, despite the sensitivity of traditional cointegration tests to distributional assumptions, the RALS-LM cointegration test, which has the capacity to produce more robust results against financial series with non-normality properties, will be preferred. Thanks to its more flexible structure, this method improves the sensitivity of statistical tests and strengthens the estimation accuracy. In this respect, it allows for more robust and reliable results compared to traditional cointegration tests. Therefore, the application of the RALS-LM test will enable the empirical identification of long-run financial relationships among city indices and will contribute to more reliable inferences regarding the level of integration of regional capital markets in Türkiye.

Keywords: Borsa Istanbul, Borsa Istanbul City Indices, RALS-LM Cointegration Test.

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THE RELATIONSHIP BETWEEN TAX WEDGE AND UNEMPLOYMENT IN G7 COUNTRIES: EVIDENCE FROM QUANTILE COINTEGRATION TEST

Eren ERGEN⁹⁸, Mervener ÇELİK⁹⁹, Nesrin ALTINTAŞ¹⁰⁰

Abstract

With the development of the concept of the social state, various duties have been assigned to the state. The realization of these duties depends on income and this income is provided by taxes. Taxes are seen as a burden for taxpayers. The tax collected on labor can be considered as the cost of the employer and is referred to as the tax wedge. It is known that the tax wedge has an effect on employment. In fact, an increase in the tax collected on labor may allow less labor to be employed or to encourage unregistered employment. The aim of this study is to analyze the effect of the tax wedge on employment in developed countries. Annual data covering the period 2000-2023 is used in the analysis. G7 countries are considered in the study. Since the data set of the relevant countries has a tailed structure, the quantile cointegration test is used in the study. In addition, the quantile method separates positive and negative shocks and takes into account the possible endogeneity problem. Therefore, the quantile cointegration test is used in the study. The findings obtained prove the existence of the cointegration relationship except for Japan. In the low and medium quantiles, a positive relationship is observed in approximately 57% of the sample, while in the high quantiles, a positive relationship is observed in approximately 43% of the sample. In other words, in negative shocks, the tax wedge increases unemployment more than in positive shocks. Therefore, new evidence is presented for the existence of an asymmetric structure between the tax wedge and unemployment in the G7 countries.

98 Assoc. Prof. Dr., Pamukkale University

99 MA Student., Pamukkale University

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SOCIOECONOMIC DYNAMICS OF TOTAL FERTILITY RATE IN TÜRKİYE: A SPATIAL REGRESSION APPROACH FOR THE 2023 CROSS-SECTION

Zafer BEYİZ¹⁰¹

Abstract

The total fertility rate in Türkiye has been steadily declining since the late 1950s (average: 6.4 children per woman-1950; 1.6 children-2023). According to Malthus, the population grows more slowly when average income falls because individuals marry later and have fewer children due to their limited means. The continued development of this Malthusian framework has shaped the modern economic approach to fertility. The modern approach to economic development has analyzed the fertility issue by considering the “demographic transition” process. Since the 19th century, changes in mortality rates and increases in life expectancy have affected the population, first in industrialized countries and then, especially in the 20th century, in developing countries. This impact represents a profound transformation of demographic regimes from high fertility and high mortality to low fertility and low mortality. The modern economic approach to fertility provides a framework for analyzing how societies escape from a Malthusian stationary equilibrium and embark on a journey to become economies where per capita incomes, human capital, and physical capital continue to rise, fertility declines to very low levels, and married women participate heavily in the labor force. This study aims to identify some socioeconomic and spatial determinants that are thought to affect the total fertility rate in Türkiye. Logarithmic transformed cross-sectional data of 81 provinces for 2023 are used in the study. The data set consists of the total fertility rate, crude divorce rate, GDP per capita, non-performing retail bank loans (real), crude marriage rate, female high school and above education rate (18-49 years), and employment rate. As a result of the comparisons among the models that consider spatial dependence, the Spatial Durbin Model (SDM) was determined as the most appropriate structure. According to SDM estimation results, fertility levels are affected not only by local factors but also by socioeconomic conditions in neighboring provinces. While the crude marriage rate significantly increases fertility, both local and spatial effects of high school and above education rates are statistically significant and negative. The model’s spatial dependence coefficient ($\rho=0.41$, $p<0.0001$) is high, reflecting a strong spatial interaction across provinces. The findings reveal that fertility behavior is spatially clustered, and social policy instruments require coordination at the regional level. In this context, SDM goes beyond traditional models, allowing for more accurate spatial analysis and policy recommendations.

Keywords: Fertility, Development Economics, Spatial Econometrics, Human Capital, Spatial Durbin Model.

101 Dr., Bursa Uludağ University

ANALYZING VOLATILITY DYNAMICS IN THE ELECTRIC VEHICLE INDEX: THE EFFECT OF THE IRA 2022 ACT THROUGH GARCH MODELS

Melis KAVAKLI¹⁰², Arda GURUŞ¹⁰³

Abstract

The global transition toward electric vehicles is reshaping not only production and consumption patterns but also the structure of expectations and risk perceptions in financial markets. This study examines the volatility dynamics of the Solactive Electric Vehicles and Future Mobility (NTR) Index, which covers global companies focused on electric vehicles and mobility technologies during the 2019–2025 period. The index is a thematic and global financial indicator composed of the stocks of companies operating in innovative areas such as battery technologies and electric vehicle systems. The aim of this study is to analyze the effects of the Inflation Reduction Act (IRA 2022), which came into force in the United States on August 16, 2022, on the Solactive Electric Vehicles and Future Mobility (NTR) Index, representing the electric vehicle and sustainable mobility sector, in terms of both returns and volatility dynamics. In this context, the Event Study method is employed to assess whether this policy intervention triggered any price responses in the stock market; additionally, a GARCH model is applied to examine the volatility dynamics of the NTR Index and to measure how this volatility was influenced by the IRA. The study aims to evaluate, at the macro level, the impact of environmentally focused regulations on financial market stability and to analytically reveal how such policies reflect on investor confidence and market expectations. The findings obtained over the relevant years indicate that environmental regulations have significant implications not only for ecological sustainability but also for economic and financial stability. Particularly, comprehensive environmental policy interventions such as the IRA 2022 have the potential to reduce market fluctuations by increasing predictability regarding sectoral dynamics. In this framework, it is argued that strategies aimed at sustainable growth possess the capacity to stabilize not only specific sectors but also the broader economic structure.

Keywords: Electric Vehicles, Environmental Regulation, IRA 2022, GARCH, Sustainability

102 Phd Student., Bursa Uludağ University

103 Phd Student., Bursa Uludağ University

WHEN THE DISRUPTED STRIKE BACK: WALMART’S DIGITAL TRANSFORMATION IN THE AGE OF AMAZON

Endi HASANAJ¹⁰⁴, Ebru Z. BOYACIOĞLU¹⁰⁵

Abstract

The global retail industry has undergone a profound shift due to the accelerating pace of digital transformation, led in large part by Amazon’s innovative and technology-driven business model. This research examines how Walmart, a long-established incumbent, responded to this transformation and reasserted its competitive strength through a deliberate and “strike back” digital strategy. By comparing Amazon and Walmart between 2010 and 2024, the study explores how firms adapt to digitally driven change through innovation, acquisition, logistics optimization, and omnichannel integration. Drawing on theoretical frameworks ranging from Schumpeter’s concept of creative destruction to endogenous growth models by Aghion, Howitt, and Akcigit, this research analyzes both companies’ strategies across the phases of transformation and strategic renewal. Using company-level data on e-commerce, logistics, and digital investments, the study demonstrates how the timing of strategic decisions and the use of inherent structural advantages (such as scale and infrastructure) have shaped the transformation outcomes of each firm. Furthermore, by briefly considering emerging markets like Türkiye, the study suggests that the dynamics of digital transformation are not limited to advanced economies. Ultimately, the research challenges the deterministic view that digital transformation marginalizes incumbent firms, offering instead a nuanced understanding of corporate resilience and strategic evolution in the digital age.

Keywords: Digital Transformation, Creative Destruction, E-commerce Strategy, Incumbent Adaptation, Omnichannel Retail, Corporate Resilience

104 Phd Student, Trakya University
105 Assoc. Prof. Dr., Trakya University

CLUSTERING ANALYSIS OF STOCK RETURNS: EVIDENCE FROM BIST-30

Erhan ERGİN¹⁰⁶, Hidayet BEYHAN¹⁰⁷, Binali Selman EREN¹⁰⁸

Abstract

In this study, the returns of stocks listed in the BIST-30 index over different time periods were analyzed using clustering techniques. The analysis covered stock return data for the period from 2015 to 2025, focusing on 3-month, 6-month, and 1-year return periods. Accordingly, the returns of the stocks were analyzed using the K-means and hierarchical clustering algorithms. The performance of the clustering results was evaluated using five different performance metrics: Silhouette Score, Davies-Bouldin Score, Calinski-Harabasz Score, Dunn's Index, and the Krzanowski-Lai Index. The results indicated that the K-means algorithm yielded more successful outcomes for 3-month returns, while the hierarchical clustering algorithm performed better for 6-month and 1-year return intervals. Based on the clustering results, the 3-month return data were grouped into five clusters, the 6-month returns into three clusters, and the 1-year returns into two clusters. The stocks clustered based on the similarity of their 3-month, 6-month, and 1-year returns were evaluated in terms of their average return levels and sectoral distributions. For the 3-month period, significant differences in average returns were observed across clusters. Cluster 4 stood out with a higher average return compared to the others. In terms of sectoral diversity, Cluster 3 exhibited a wide variety of sectors, whereas Clusters 2 and 5 showed sectoral concentration. For the 6-month period, Cluster 3 had the highest average return among all clusters, while Clusters 1 and 2 displayed sectoral diversity. For the 1-year period, it was observed that, except for one stock, all others were grouped within the same cluster. When the overall results are considered, it can be concluded that the clusters formed based on 3-month and 6-month returns exhibit a more balanced distribution in terms of both average return and sectoral composition compared to those based on 1-year returns. The inclusion of three different time horizons in the study may provide investors and portfolio managers with a more comprehensive framework to compare stock returns across different periods and make more informed evaluations.

Keywords: Stock Returns, Clustering Analysis, BIST-30

106 Asst. Prof. Dr., Bitlis Eren University

107 Asst. Prof. Dr., Bitlis Eren University

108 Asst. Prof. Dr., Bitlis Eren University

INVESTMENT WITH DEBT: THE EFFECT OF INDIVIDUAL INVESTORS AND CONSUMER LOANS ON STOCK RETURNS

Elvan ÖZTÜRK¹⁰⁹

Abstract

Personal loan can be used for consumption purposes as well as for investment purposes by individuals who see the volatilities in financial markets as a profit opportunity. The rapidly increasing number of individual investors in recent years has made it necessary to examine the dynamics behind behavioral tendencies and investment decisions. This study analyzes the effects of credit utilization and macroeconomic variables on BIST 100 and BIST Public Offering indices through nominal and real models in order to determine individual investor behavior. Structural breaks were identified in the models created with monthly data for the 2006-2025 period, and evaluations were made over sub-periods accordingly. The findings show that the increase in the number of individual investors negatively affected the returns in both indices until 2020, but had positive effects on the IPO index after 2022. This result can be explained by the fact that new investors generally have a profile that has low financial literacy, is prone to herd behavior and acts with short-term profit expectations, and for these reasons, they are easily affected by speculative/manipulative news and make panic sales. This investor profile may create an unstable market environment by increasing market volatility and may have put pressure on returns by damaging market confidence. In the post-2022 period, it is seen that the search for protection against high inflation and the intense demand for public offerings reverse the negative effect. In addition, the positive relationship between the increase in the volume of consumer loans and stock market returns indicates that these loans may have been used for investment purposes. These findings reveal the change in investor behavior over time and the stock market's reaction to this change.

Keywords: Investor Behavior, Consumer Credit, Structural Break Analysis, Behavioral Finance

SAFE HAVENS OF THE DIGITAL AGE: VOLATILITY DYNAMICS OF CRYPTOCURRENCIES IN CRISIS PERIODS

Elvan ÖZTÜRK¹¹⁰

Abstract

In times of crisis, which cause increased volatility in financial markets, safe haven assets offer investors the opportunity to protect against possible losses. There are many studies in the literature that question the safe haven feature of financial assets in different crisis periods; however, it has been observed that there is insufficient research on cryptocurrencies and stablecoins, which are important investment alternatives of recent times, and the crises that will affect the dynamics of these assets. Therefore, the study aims to comparatively analyze the volatility behaviors of leading cryptocurrencies such as Bitcoin (BTC), Ethereum (ETH), USDT, USDC, XRP, BNB and Solana (SOL) during crisis periods, along with the gold and dollar index (DXY), whose safe haven feature has been accepted many times in the literature. Seven crisis periods that occurred between 2017-2024 and had a high impact on the crypto market were determined and included in the models through dummy variables. The 2017-2018 crypto bull and crash, the 2020 COVID-19 pandemic, the 2021 Elon Musk tweet, the 2021 China cryptocurrency ban, the 2022 Terra Luna crash, the 2022 FTX exchange bankruptcy, and the 2023 Silicon Valley Bank bankruptcy constitute crisis periods. The GARCH (1,1) model results estimated with daily logarithmic return series and dummy variables show that USDT is the strongest asset that responds least to crises and therefore exhibits safe haven characteristics. Although Solana's data set is shorter and two crisis periods are excluded, it has been observed that it exhibits more stable performance than other cryptocurrencies. While BTC, ETH, and USDC give similar results with their high volatility, XRP and BNB have been among the most fragile assets, showing a significant increase in volatility in almost all crisis periods.

Keywords: Cryptocurrencies, Safe Haven, Volatility, Stablecoins, Bitcoin

DYNAMICS BETWEEN BITCOIN AND TECHNOLOGY INDICES INTEGRATION: A DCC-GARCH APPROACH

Gökhan Berk ÖZBEK¹¹¹

Abstract

The increasing integration of crypto assets into the financial system over the years has significantly expanded the scope of research on their interactions with traditional financial instruments. In particular, the financial performance of companies operating in the technology sector has gained prominence, partially driven by the advancement of blockchain technologies. Within this study, the impact of Bitcoin (considered a benchmark among crypto assets) on the integration of major global technology indices is examined. In this context, the integration dynamics among three prominent technology indices (Hang Seng Tech, FTSE All Technology, and Dow Jones Technology) representing countries with deep and broad capital markets, are modeled using the DCC-GARCH approach. In the following stage, the short-term effects of Bitcoin on the dynamic correlations of these indices are investigated through the Granger Causality test. The analysis covers a 10-year period from 2015 to 2025, using weekly data series. Empirical findings reveal that Bitcoin price movements are a Granger cause of the dynamic correlations between Hang Seng Tech–FTSE All Technology and Dow Jones Technology–FTSE All Technology. This outcome suggests that Bitcoin should not only be considered as an alternative investment vehicle, but also as a factor potentially influencing financial integration within the technology sector. In this regard, the interaction between crypto assets and global technology markets warrants closer monitoring by regulatory authorities and policymakers, as well as by investors in the context of portfolio and risk management.

Keywords: Bitcoin, Technology Index, DCC-GARCH

111 Lecturer Dr., Bursa Uludağ University

DYNAMIC RELATIONSHIP BETWEEN BITCOIN MINING AND CO₂ EMISSIONS: SPILLOVER ANALYSIS WITH TVP-VAR METHOD

Mehmet ÇINAR¹¹², Özge ÖZBEK¹¹³

Abstract

The high transaction volume of Bitcoin, currently the most traded crypto asset, increases transaction fees, making network mining more profitable. This leads to new miners joining the network and increasing energy consumption and carbon emissions. The study examines whether there is a carbon emission spillover from Bitcoin mining between February 2017 and November 2024. Hash rate, carbon emission, electricity consumption, and energy consumption variables related to Bitcoin were used as a proxy for Bitcoin mining. In the study, where fixed parameter Diebold-Yilmaz and TVP-VAR methods that allow time-varying parameters were used, it was determined that Bitcoin mining activities significantly affect carbon emissions. In particular, as the hash rate increases, more machines are working, which causes more electricity consumption. High levels of energy consumption increase carbon emissions. In order to reduce carbon emissions, policymakers in the field of economy and environment should develop new strategies. The most important of these are the transition to clean energy in Bitcoin mining, the implementation of a carbon tax, and green blockchain solutions.

Keywords: Diebold-Yilmaz, TVP-VAR, Bitcoin, Co2, Spillover

112 Prof. Dr., Bursa Uludağ University

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DOES URBANIZATION AFFECT INCOME INEQUALITY? A RESEARCH ON DEVELOPING COUNTRIES UNDER THE KUZNETS APPROACH

Ömer Faruk GÜLTEKİN¹¹⁴, Tuba BİLGİN¹¹⁵

Abstract

As a representative of the process of economic development and income growth, the increase in urbanization leads to a shift in resource allocation from agriculture to industry and service sector. In addition to increasing employment and reducing informality, increased urbanization can also contribute to reducing economic and social inequalities through the social effects of living together. In this study, the effects of urbanization on income inequality for a selection of nine developing countries over the period 1990-2022 are investigated through the Kuznets model with control variables such as public expenditures, exports and democracy. Following the basic testing process, quantile regression, panel ARDL and Generalized Least Squares tests are used for estimation. According to the findings, it is observed that there is an “inverted U” shaped relationship between urbanization and income inequality for all estimators, an increase in public expenditures and democracy coefficient decreases income inequality, while exports do not have a statistically significant effect. Depending on the estimation results, turning points were calculated for each estimator and close results obtained.

Keywords: Economic Development, Income Inequality, Urbanization, Panel Data Analysis, Quantile Regression.

114 Assoc. Prof. Dr., Bayburt University.

115 Asst. Prof. Dr., Bayburt University

THE SERIAL MEDIATION MODEL OF STRESS AND PROBLEMATIC SOCIAL MEDIA USE IN THE RELATIONSHIP BETWEEN NEED FOR UNIQUENESS AND PURCHASE INTENTION

Özlem ER¹¹⁶

Abstract

This study aims to examine the effect of individuals' need for uniqueness on their purchase intentions. Additionally, it seeks to evaluate the mediating roles of stress level and problematic social media use in this relationship. The sample of the study consists of 400 individuals residing in Istanbul. The data were collected through an online survey method and analyzed using the SPSS software package. Initially, the reliability and validity of the measurement tools used in the research were assessed, followed by confirmatory factor analysis (CFA) conducted via AMOS 21 software. Relationships between the variables were examined using descriptive statistics and correlation analyses, and finally, mediation effects were tested using Process Macro Model 4. The findings revealed that individuals' need for uniqueness had a significant and positive effect on their purchase intentions. Furthermore, it was determined that stress and problematic social media use served as mediators in this relationship. The research contributes both theoretically and practically to understanding how consumers' desire for uniqueness shapes their purchasing decisions. Additionally, by highlighting the potential negative impacts of social media use on consumer behavior, the study aims to raise awareness and encourage the development of more conscious and sustainable consumption habits.

Keywords: Need for uniqueness, stress, problematic social media use, purchase intention

EXAMINING THE EFFECT OF ATTITUDE TOWARDS AUGMENTED REALITY ON PURCHASE INTENTION WITH THE MEDIATION OF BRAND LOYALTY

Saba CHITSAZ¹¹⁷

Abstract

This study aims to examine the impact of individual attitudes toward augmented reality (AR) technology on consumers’ purchase intentions, while also evaluating the mediating role of brand loyalty in this relationship. In today’s digitalized world, technological advancements are significantly transforming consumer behavior. In particular, AR technology stands out as an innovative tool in marketing practices by making user experiences more interactive and authentic. The sample of this research consists of 400 individuals residing in Istanbul who have previously experienced AR technology. The data were collected through an online survey, and statistical analyses were conducted using SPSS and AMOS software packages. Initially, the reliability and validity of the measurement tools used in the study were examined. Subsequently, confirmatory factor analysis (CFA) was performed to test structural validity. The relationships among variables were evaluated through descriptive statistics and correlation analyses. Finally, mediation analysis was conducted using Process Macro (Model 4). The findings reveal that positive attitudes toward AR technology significantly enhance brand loyalty, which in turn strengthens purchase intentions. These results suggest that AR not only provides short-term experiential benefits but also influences long-term customer commitment and brand preferences.

Keywords: Augmented Reality Marketing, Purchase Intention, Brand Loyalty

STRUCTURE AND COURSE OF ENTREPRENEURSHIP RESEARCH IN TÜRKİYE

Berna TURAK KAPLAN¹¹⁸

Abstract

Entrepreneurship research is very widespread in Türkiye. This study examines 42 entrepreneurship-focused studies from the first issue of the “Journal of Business Research” in 2009 to the last issue, in the field of “entrepreneurship”. The main purpose of this study is to conduct an exploratory bibliometric analysis on the structure and course of entrepreneurship research through the “Journal of Business Research”. In the context of this purpose, firstly, a review was conducted on entrepreneurship research topics through the “Journal of Business Research”. In the review of research topics, entrepreneurship topics and relational issues were evaluated. Secondly, an examination was conducted on the authors of the studies. The authors were examined with a focus on schools, universities and cities. Finally, the samples, methods and techniques regarding the methods of the studies were analyzed. Various results and findings were revealed in this study regarding the structure and course of such important and qualified research in entrepreneurship literature. In the evaluation of the findings regarding the research topics of this research, it was observed that the subject of “Entrepreneurial Intention” was predominantly covered and the most covered subject in relational subjects was “business performance”. In the findings regarding the authors of the studies, it was determined that the school with the most was “Faculty of Economics and Administrative Sciences”, the weight in universities was “Ankara Hacı Bayram Veli University” and the weight in the category of cities was “Ankara”. In the findings regarding the methods of the studies, it was determined that the samples were on students, the methods were predominantly quantitative methods and the techniques were predominantly survey techniques. As a result of the evaluation of the research findings, it was determined that the structure and course of the entrepreneurship writing was in a framework compatible with the literature. However, it was suggested how the richness of entrepreneurship research should be in future studies.

Keywords: Entrepreneurship, Entrepreneurship Research, Journal of Business Research.

THE ECONOMIC IMPACT OF THE DEVELOPMENT OF OCCUPATIONAL HEALTH AND SAFETY CULTURE: THE RELATIONSHIP BETWEEN ORGANIZATIONAL TRANSFORMATION AND COMPETITIVENESS

Umut ELBİR¹¹⁹

Abstract

Although occupational health and safety (OHS) has traditionally been regarded as a discipline focused on protecting workers and preventing workplace accidents, it has increasingly become a strategic component in ensuring business sustainability and competitiveness. The aim of this study is to analyze the economic impacts of a developing OHS culture at the corporate level and to reveal the tangible benefits it provides to organizations. OHS culture is not merely about fulfilling legal obligations; it is a managerial philosophy shaped by employee safety, managerial commitment, and the participation of all stakeholders. Enterprises with a strong OHS culture experience increased employee satisfaction, reduced absenteeism, and lower employee turnover. These improvements directly contribute to higher productivity, better quality, and reduced costs. In this study, causal relationships between the level of OHS culture and economic performance indicators (such as productivity per employee, profitability, labor turnover, insurance premium costs, etc.) are analyzed among medium and large-scale enterprises operating in various sectors in Türkiye. The data were collected from quantitative sources such as surveys, workplace accident records, and financial performance reports. In addition, qualitative findings were obtained through in-depth interviews with selected companies. The analysis reveals that enterprises with a high level of OHS culture exhibit lower workplace accident rates, higher employee engagement, and stronger long-term financial performance. Particularly in export-oriented companies, OHS practices were found to provide a competitive advantage during international audits. The development of an OHS culture is driven not only by internal motivation but also by economic rationality. In conclusion, OHS culture should not be viewed as a cost item, but as a strategic investment with economic value. Institutionalizing OHS culture minimizes not only individual accidents but also organizational risks, thereby enhancing business resilience in the marketplace. In this context, it is crucial that policymakers, employers, and academics collaborate in multidisciplinary efforts to promote the development of OHS culture. This paper aims to highlight the economic dimension of occupational health and safety culture, emphasizing that the issue is not only technical or legal but also a managerial and strategic concern.

Keywords: Economic Performance, Workplace Productivity, Strategic Investment.

IERFM CONGRESSES FOCUSED ON ACADEMICS, PROFESSIONALS AND MEDIA: PORTRAIT OF THE LAST 3 YEARS

Berna TURAK KAPLAN¹²⁰, Mehmet KAPLAN¹²¹

Abstract

The International Participation Economic Research and Financial Markets Congress (IERFM) is considered one of the largest organizations organized in the field of finance. One of the most important reasons for this qualification is that the congress is not only focused on academics, but also includes professionals and media in the field. Therefore, the congress integrates both theory and practice and goes beyond scientific research and becomes a source of motivation for the field. In this context, this study presents the congresses of the last three years (2024, 2023, 2022) with a focus on the demographics of researchers (university/institution and title) and the demographics of the research (subjects and methods). The study draws a portrait of the last 3 years regarding the congress and makes recommendations for future research/researchers.

Keywords: Academician, professional, media, IERFM.

120 Asst. Prof. Dr., Isparta Applied Sciences University

121 Assoc. Prof. Dr., Isparta Applied Sciences University

THE ROLE OF GOOD GOVERNANCE IN SUSTAINABLE DEVELOPMENT

Nalan KANGAL EROĞLU¹²², İlhan EROĞLU¹²³

Abstract

Sustainable development is an essential and dynamic structure that continues to expand with new determinants of development and is a phenomenon among the indispensable goals of countries. Sustainable development inherently involves the effort to meet today's needs without compromising the ability of future generations to meet their needs. While doing this, a three-dimensional sustainability that takes economic, social and environmental goals into account is targeted. While the level of income per capita, which is a sustainable life cycle at the core of the economic growth goal, is accepted as a measure, ignoring environmental degradation and a livable environment with growth motivation is seen as a significant handicap. Therefore, the threat of natural and ecological climate degradation has made the development of environmental awareness, another sustainable development goal, inevitable. These goals have also required education, health, nutrition, shelter, etc. to be considered within sustainable development goals, thus forming the sustainable development framework from a social perspective. In addition to economic growth, preventing extreme poverty, increasing social trust with strengthened policies and preventing the degradation of the environment due to human impact are some of the sustainable development goals. To achieve these goals, the quality of institutional structures, also referred to as "good governance", has also come to the fore. Because institutions have an important duty to support progress towards the goals by working effectively and efficiently, demonstrating good governance, to achieve the Sustainable Development Goals. Decision makers and implementers are essential in achieving economic, social and environmental goals for sustainable development. It is thought that this should be done by making, implementing and monitoring policies through good governance. It is believed that it is closely related to the quality of the countries' institutional structure. This study aims to reveal the relationship between good governance and environmental quality, an essential target in development, and the use of renewable energy, an important measure of this. The study's findings indicate that increasing the level of governance encourages the use of renewable energy to protect or improve environmental conditions, and as a result, it is an inseparable and mandatory part of sustainable development.

Keywords: Sustainable Development, Good Governance, Institutional Quality

122 Assoc. Prof. Dr., Tokat Gaziosmanpaşa University

123 Prof. Dr., Tokat Gaziosmanpaşa University

GREEN ECONOMY: BIBLIOMETRIC ANALYSIS

Emine Aybike AKKUTAY¹²⁴

Abstract

With climate change and sustainable development gaining importance, studies on green economy have increased in recent years. Green economy improves living standards by using natural resources carefully. Thus, it helps to increase the level of welfare. However, there is no common view on the definition of green economy and there is a gap in conceptual research. From this point of view, in this study, a bibliometric analysis of publications in the field of green economy using VOSviewer software between 1990 and 2025 in the Web of Science database was conducted. Thus, documents, countries, institutions, publication year, keywords, journals, co-authorship and co-citations were analyzed. Related keywords related to green economy in the study are renewable energy, sustainable development, circular economy, innovation, carbon emissions and digital economy. The bibliometric analysis used in the study summarizes the current state of the green economy and thus provides a conceptual framework for future studies.

Keywords: Green Economy, Bibliometric Analysis, Vosviewer

BIBLIOMETRIC ANALYSIS OF STUDIES ON FINANCIAL COMMUNICATION IN WEB OF SCIENCE

Merve KARAVAR¹²⁵

Abstract

With the increase in the competitive environment, companies that want to survive in the international market have started to attach importance to financial communication in order to adapt to competitive conditions and improve stakeholder relations. Financial communication involves the secure and transparent transfer of financial information and data that companies wish to share with investors. Therefore, financial communication has an important place in protecting and increasing share values in publicly traded companies. For companies, emphasising their financial position and growth potential is intended to build investor confidence and have a positive impact on the value of the company. Company announcements, press releases, annual reports and financial communication channels are used to convey information to stakeholders. It is important for companies to provide accurate, transparent and reliable information to the public, investors and other stakeholders about their financial status and performance, to gain trust, and to positively affect reputation and prestige. The literature review reveals that there are studies on financial public relations, financial communication and investor relations. In some studies, the concepts of financial public relations and investor relations are used interchangeably, but the main emphasis is on financial communication. From this point of view, direct financial communication studies have been selected as the subject of bibliometric analysis and answers are sought to the questions in which fields and in which aspects the concept of financial communication is mostly addressed in the academic field.

In our study, the articles in the Web of Scienc database on financial communication between 2015-2025 were analysed according to certain categories. "All fields" were selected and the studies with the expression "financial communication" were analysed by bibliometric method. The bibliometric analysis was limited to articles only. These studies were analysed and tabulated in terms of publication year, publication language, publication type, country of publication, authors, keywords, number of citations (according to institutions, years and countries) using VOSviewer software.

Keyword: Financial communication, stakeholder, reputation, bibliometric analysis

GENDER PERCEPTION FROM THE PERSPECTIVE OF SUSTAINABLE DEVELOPMENT: A QUALITATIVE STUDY ON UNIVERSITY STUDENTS

Tuğba ADIGÜZEL¹²⁶, Ebru Z. BOYACIOĞLU¹²⁷

Abstract

Gender equality is considered not only in the context of individual rights but also as a fundamental condition for sustainable development. In this regard, the study aims to examine university students' perceptions of gender from the perspective of sustainable development. The sample group consists of 50 students from different faculties at Trakya University, and the data obtained through in-depth interviews using a qualitative research method, were analyzed using MaxQDA software. The findings reveal that while there is a strong awareness of gender equality among university students and they consider equality essential for sustainability, gender perceptions are still influenced by traditional stereotypes. Additionally, it was found that gender perceptions differ between woman and man students, with gender-based economic inequalities being more pronounced in physically demanding professions and traditional societal norms. The research emphasizes that achieving gender equality is not only critical at the individual level but also holds significant importance for economic sustainability.

Keywords: Sustainable Development, Gender Perception, Economic Equality, Trakya University

126 Specialist Economist

127 Assoc. Prof. Dr., Trakya University

A THEORETICAL PERSPECTIVE ON THE ROLE OF THE ENTREPRENEUR IN THE MARKET PROCESS: A COMPARATIVE ANALYSIS OF SCHUMPETER'S AND KIRZNER'S THEORIES OF ENTREPRENEURSHIP

Berke Erdoğan HAMAMCI¹²⁸, Adem LEVENT¹²⁹

Abstract

Entrepreneurial activities are recognized as one of the most important factors of economic growth. Although entrepreneurial activities were considered static in the emergence of economics, they have been recognized as one of the basic phenomena of the market after the 20th century and these activities have emerged as entrepreneurship theories and have maintained their place in the literature until today. The most notable and current entrepreneurship theories in the literature are Joseph A. Schumpeter's entrepreneurial theory and Israel M. Kirzner's theory based on entrepreneurial exploration activities. However, there are important differences between the theories of these two names. This study aims to compare the entrepreneurship theories of Schumpeter and Kirzner and to reveal the importance of entrepreneurship in economic theory.

Keywords: Schumpeter, Kirzner, Entrepreneurship, Creative Destruction, Discovery.

128 MA Student., Bursa Uludağ University

129 Assoc. Prof. Dr., Bursa Uludağ University

THE EFFECTS OF INTELLECTUAL CAPITAL COMPONENTS ON RETURN ON ASSETS (ROA), RETURN ON EQUITY (ROE), AND RETURN ON INVESTED CAPITAL (ROIC): THE CASE OF BIST 30

Ayşegül YILDIRIM KUTBAY¹³⁰

Abstract

The purpose of the research is to determine the effects of intellectual capital components on the profitability and investment capital of companies operating in the BIST 30 index. Intellectual capital components are defined as all intangible assets that are called the transformed state of knowledge and add value to the production of companies. Since intellectual capital inputs and outputs are not directly included in the financial statements, they are ignored by investors and managers. However, many studies indicate that intellectual capital components are much more than their tangible book value. The calculation of the inputs of intellectual capital components and the knowledge of their impact in advance will even affect the investment decisions to be made in the stocks of companies. The research was conducted with a balanced panel data obtained from companies operating in BIST 30 whose stocks were listed on the stock exchange between 2012-2023. The main mass of the research is the financial data of 30 companies included in the BIST 30 index. However, there are some companies that are included in the scope of the research, although they are included in the scope of BIST 30. These are financial sector companies AKBNK, GARAN, YKBNK and ISATR, since their financial statements are different from other companies, and some variables cannot be formed, KRDMA, KRDMB, KRDM are single companies but have more than one financial statement, KONTR started its operations in 2017 and ASTOR in 2019, and the high number of missing years will cause the evaluation to be incorrect, so they were excluded from the scope of the research. There are three dependent variables in the research. These are return on assets (ROA), return on equity (ROE) and return on invested capital (ROIC). The effectiveness of the firm's physical capital, the effectiveness of the firm's human capital and the firm's structural capital, which are intellectual capital components, were considered as independent variables. In addition, some liquidity ratios, turnover rates and financial leverage ratios were used as control variables. 9 models were developed within the scope of the research. In the analysis of the data, descriptive statistics, correlation analysis, unit root analysis, regression model determination tests, regression results of the models according to the determined regression model, deviation tests from the assumptions of the models and estimation with the appropriate robust estimator for the models in line with the deviation tests were made. According to the results of the research, while the effectiveness of the firm's physical capital has a negative and significant effect on ROE (-0.08813, $P < 0.001$), it is found that human capital has a significant and positive effect on ROA (0.0060137, $p < 0.05$), ROE (0.0112158, $p < 0.001$) and ROIC (0.3446818, $p < 0.001$) variables, respectively. The significant and positive effects of structural capital on ROA (0.0260445, $p < 0.001$) and ROE (0.0530684, $p < 0.001$) were reported specifically for the research.

Keywords: Return on Assets (ROA), Return on Equity (ROE), Return on Invested Capital (ROIC), Intellectual Capital, Business Finance

THE UNEQUAL EFFECTS OF MACROECONOMIC AND INSTITUTIONAL FACTORS ON ENERGY UNCERTAINTY: A QUANTILE REGRESSION PERSPECTIVE

Mahmut Sami DURAN¹³¹, Şeyma BOZKAYA¹³²

Abstract

This study analyzes the factors affecting energy-related uncertainty in G-20 countries. To this end, green technology, economic growth (GDP), green energy supply, globalization, government effectiveness and domestic credit to the private sector are included in the model as independent variables. The analysis period of the study covers the years 2000-2022. MMQRG (Method of Moments Quantile Regression) estimator is used in the empirical analysis. According to the findings, economic growth has a statistically significant and positive effect on energy uncertainty in all quantiles, while green technology is statistically significant only up to quantile 0.50 and this effect is negative. Moreover, government efficiency becomes significant from quantile 0.30 onwards and has a dampening effect on energy uncertainty. The other independent variables did not have a statistically significant effect in all quantiles. These results reveal that the causes of energy uncertainty differ across quantiles; hence, policy effects may vary depending on the level of development and institutional capacities of countries. It is recommended that policy makers should encourage green technology investments and strengthen institutional effectiveness, especially to reduce the uncertainties caused by economic growth processes.

Keywords: Energy Uncertainty Index, Green Technology, Green Energy Supply, Globalization, Government Efficiency, Growth

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132 Dr.

SUSTAINABLE CIRCULAR ECONOMY

Hasan BAKIR¹³³, Neşe ARAL¹³⁴

Abstract

The changes occurring in the global economy have led to a re-evaluation of growth models. The linear model approach, which advocates achieving maximum production with existing resources, has been criticized due to its negative impacts on the environment. This approach fails to show the necessary sensitivity towards the reuse of resources, and it has been determined that natural resources are being consumed at a rapid pace. The circular economy has emerged as a key concept in resolving the conflict between industrial development and resource conservation. The circular economy, an evolving concept today, is primarily focused on reducing the negative environmental impacts of growth and conserving natural resources. In this regard, processes such as reducing waste generated by production, directing resources for reuse, and recycling demonstrate the cyclical nature of the model. Therefore, it is stated that the transition to a circular economy will reduce environmental degradation, increase the preservation and efficiency of natural resources. At the end of this process, it is also stated that a more innovative environment will be created, leading to an increase in economic growth. This new structure is expected to increase production, employment, and consumer benefits. In this study, the aim is to examine the impacts of the transformations brought about by the circular economy. In this context, indicators that define the main elements of the circular economy have been analyzed. The results obtained are considered important for developments and progress in circular economy.

Keywords: Circular Economy, Sustainability, Natural Resources

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A STOCHASTIC CONVERGENCE ANALYSIS OF ECONOMIC FREEDOM AND ITS SUBCOMPONENTS IN EUROPEAN UNION COUNTRIES

Çağın KARUL¹³⁵

Abstract

This study employs a stochastic convergence approach to examine whether the levels of economic freedom and its subcomponents converge across European Union (EU) member states. Economic freedom is a multidimensional concept encompassing the protection of property rights, the promotion of free markets, and the limitation of government intervention. In this context, the analysis considers not only the overall economic freedom index but also its five key components as defined by the Fraser Institute: Size of Government, Legal System & Property Rights, Sound Money, Freedom to Trade Internationally, and Regulation. To account for cross-sectional dependence among countries, the empirical analysis applies the panel unit root test developed by Pesaran (2007). The results provide evidence of convergence in economic freedom levels among EU countries over the long run, both in terms of the overall index and most of its subcomponents. These findings suggest that EU member states tend to harmonize their economic freedom policies, indicating that the process of European integration also fosters convergence in institutional quality and market-oriented reforms.

Keywords: Economic Freedom, Panel Unit Root, Cross Section Dependency, Convergence

GLOBALIZATION AT A TURNING POINT: TRUMP'S TARIFFS, FINANCIAL MARKET IMPACTS, AND THE RE-EVALUATION OF FUKUYAMA'S "END OF HISTORY"

Caner ÖZDURAK¹³⁶, Pelin YANTUR¹³⁷

Abstract

Francis Fukuyama's "End of History" thesis, which predicted the global triumph of liberal democracy and free-market capitalism after the Cold War, has been challenged by recent events. Notably, the trade policies of Donald Trump's presidency, characterized by tariffs and protectionism, have raised questions about the future of globalization. Trump's tariffs have disrupted established trade patterns and created significant economic uncertainty. Our research indicates that these policies have had a substantial impact on financial markets, affecting almost all asset classes. Specifically, trade-related shocks have been shown to explain a significant portion of market volatility. These shocks operate through changes in investor expectations about economic growth and increased perceptions of risk. Companies who are heavily reliant on exports to specific markets have been particularly vulnerable to these trade disruptions. The implementation of tariffs also coincided with concerns about rising inflation and potential market reactions, such as increased bond yields. Historically, financial crises have been linked to trade disruptions and speculative market behavior. Trump's tariffs, by influencing inflation and creating trade instability, have contributed to market volatility. To analyze these effects, various economic methods are employed, including models that assess overall economic impacts and those that focus on specific sectors. These methods provide empirical evidence of the tariffs' effects on trade, economic growth, and financial stability. In conclusion, econometric analyses reveal the significant and measurable impact of recent tariff policies on financial market volatility, operating through altered growth expectations and risk perceptions. These findings underscore the sensitivity of global financial markets to trade policy shifts and highlight the potential for inflationary pressures to amplify market responses. Consequently, this study provides empirical evidence that contributes to a more refined understanding of the intricate relationship between contemporary trade policies and the stability of the global financial system in an era marked by a re-evaluation of previously assumed trajectories of globalization.

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137 Asst. Prof. Dr., Yeni Yüzyıl University

THE POLITICAL CONSTRUCTION OF A GREEN FUTURE: REPRESENTING THE PARIS CLIMATE AGREEMENT IN TURKISH PARLIAMENTARY DISCOURSE

Selcen ALTINBAŞ UMUT¹³⁸

Abstract

This study analyzes the parliamentary discourse surrounding the Paris Climate Agreement during the 27th legislative term of the Grand National Assembly of Türkiye (TBMM), focusing on how the themes of “green future” and “sustainable development” are articulated and represented in political speech. The primary data set consists of 87 parliamentary speeches delivered particularly during and after the session held on October 6, 2021, in which the Paris Agreement was ratified by the Turkish Parliament.

Using thematic content analysis and discourse analysis, the study categorizes the speeches according to key themes such as international obligations, climate crisis mitigation, renewable energy, and the development–environment nexus. Furthermore, the discursive strategies are classified by function—policy-constructive, symbolic, or critical—highlighting the variation in party positions and ideological framings.

The research aims to uncover how global environmental agreements like the Paris Climate Agreement resonate within national political arenas. It examines the extent to which concepts such as green transition and sustainability are appropriated, contested, or instrumentalized by political actors. By mapping out these dynamics, the study contributes to understanding the discursive boundaries and possibilities of environmental politics in contemporary Turkish parliamentary debates.

Keywords: Paris Climate Agreement, Green Future, Turkish Parliament, 27th Legislative Term

IS BITCOIN THE NEW GOLD?

Çağrı ULU¹³⁹

Abstract

The emergence of Bitcoin has sparked numerous debates, particularly in the field of finance. Bitcoin has often been compared to various commodities, and its behavior has been extensively analyzed. One of the most prominent discussions revolves around the similarities between Bitcoin and gold, with some referring to Bitcoin as the “gold of the modern era.” The aim of this study is to test this hypothesis. The study utilizes daily data covering the period from January 1, 2022, to December 31, 2024. The data were transformed into return series, and Autoregressive Moving Average (ARMA) models were initially established for each series. Following the ARMA modeling, the appropriate Autoregressive Conditional Heteroskedasticity (ARCH-GARCH) models were estimated for each series. Based on these estimations, a Dynamic Conditional Correlation GARCH (DCC-GARCH) model was constructed to examine causality between the series. The results indicate that no significant relationship exists between Bitcoin and gold in terms of conditional correlation. The extent of this relationship was further examined using an Impulse Response analysis. The findings reveal that Bitcoin and gold exhibit strong reactions to their own shocks; however, these effects diminish over time and approach zero. The mutual impact between Bitcoin and gold was found to be highly limited. It was concluded that an increase in Bitcoin’s volatility does not significantly affect gold, and vice versa. Consequently, the study suggests that the Bitcoin and gold markets operate independently in terms of volatility and do not significantly influence each other.

Keywords: Bitcoin, Gold, ARCH, GARCH, DCC-GARCH

**UNCERTAIN TIMES: ASSESSING THE IMPACT OF ECONOMIC
POLICY UNCERTAINTY ON THE VALUE OF ENERGY FIRMS
HEADQUARTERED IN EUROPE**

Canan ÖZKAN¹⁴⁰, Mehmet Hanifi ATEŞ¹⁴¹, Zehra ÇAVUŞOĞLU ADIGÜZEL¹⁴²,
Sabri KURTOĞLU¹⁴³, Yusuf YILDIRIM¹⁴⁴

Abstract

Economic policy uncertainty (EPU) refers to the uncertainty in the economic environment, caused by unpredictable government policies, political instability, and market volatility. EPU creates challenges for all economic agents in their planning as well as investment decisions. This study investigates the impact of Economic Policy Uncertainty (EPU) or Global Economic Policy Uncertainty (GEPU) on the value of energy firms headquartered in Europe. The value of energy firms is proxied by Tobin's q measure. While the dynamic nature of the investigated interrelation between firm value and EPU is captured by an Arellano-Bond Dynamic Panel approach, a system Generalized Method of Moments (GMM) estimator is employed to address the endogeneity problem in the dataset. Based on the assumption that EPU has interrelation not only with Tobin's q but also with other financial ratios of the firm, the model additionally includes interaction terms to capture the differential impact of EPU on the selected financials of energy firms included in the sample. More specifically, the analysis includes multiple periods of heightened global economic uncertainty, such as periods associated with significant global events, namely the Global Financial Crisis, the COVID-19 pandemic, and the most recent Energy Crisis. Utilizing a firm-level panel dataset spanning from 1997 to 2023, two models were created and tested, namely Model I with global EPU and Model II with domestic EPU. The results indicate that firm value becomes more sensitive to the uncertainty in economic policies during times of global economic turmoil. In other words, GEPU has a substantially adverse effect on the valuation of European energy companies, particularly during times of global financial crisis. Another important finding of this study is that the effect of financial leverage on the value of firm is negative, while this effect diminishes during times of elevated global policy uncertainty. These findings indicate that energy companies are especially susceptible to uncertainties regarding global economic policies, highlighting the need for robust risk management strategies.

Keywords: Economic Policy Uncertainty, Global Economic Policy Uncertainty (GEPU), Tobin's Q, Interaction Term, Dynamic Panel, Firm Value, Generalized Method of Moments (GMM)

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THE EFFECTS OF ARTIFICIAL INTELLIGENCE ON FOREIGN TRADE AND ECONOMIC GROWTH IN A DIGITALIZING WORLD

Gökçen AYDINBAŞ¹⁴⁵, Sevim ÖZKAN¹⁴⁶

Abstract

Artificial intelligence has emerged as a rapidly growing transformation in recent years. In this direction, it potentially affects many areas. It comes to the forefront especially in terms of increasing efficiency, encouraging innovation and contributing to economic growth. The use of digitalisation in foreign trade, which is one of the important components of globalisation, reveals positive results at many points such as effectiveness, efficiency, quality and sustainability. This is because the use of new technologies such as artificial intelligence in the foreign trade process with digitalisation helps to reduce costs, make transactions faster and make trade more efficient. The integration of production processes with smart technologies, the positive impact of innovative technologies and digitalisation on enterprises lead to the emergence of new products and services. Therefore, this situation provides an impetus to economic growth. In this respect, it is possible to say that digitalisation and the artificial intelligence technologies it brings with it are the harbingers of an important transformation that contributes to economic growth. In this study, the effects of artificial intelligence on foreign trade and economic growth in the digitalised world are examined within the framework of a theoretical evaluation by considering the world in general and Türkiye in particular. Finally, the study concludes with policy recommendations on this issue.

Keywords: Digitalization, Artificial Intelligence, Foreign Trade, Economic Growth

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MAPPING THE DIFFERENCES: COUNTRY ALLOCATIONS IN
ESG OPEN-ENDS' PORTFOLIOS. ARE THEY DIFFERENT FROM
CONVENTIONAL ONES?

Haluk Erdem OVALI¹⁴⁷, Sabri KURTOĞLU¹⁴⁸

Abstract

Over the past decade, Environmental, Social, and Governance (ESG) investing has experienced a notable rise in prominence, with ESG Open Exchange-Traded Funds (ETFs) and the total assets under their management showing a sharp increase. While existing literature has largely concentrated on the performance metrics of these funds, a growing body of research has started to scrutinize whether these ETFs truly align with ESG principles. These inquiries have often centered around issues such as greenwashing and the sectoral composition of ESG fund portfolios. However, a critical aspect remains underexplored—how ESG ETFs allocate their investments geographically. To date, there has been little to no academic attention paid to the country-level allocation strategies of ESG ETFs. This study seeks to fill that gap by systematically examining whether ESG ETFs exhibit distinct country preferences when compared to their conventional, non-ESG counterparts. The primary objective is to understand if ESG ETFs allocate their assets across a narrower selection of countries and whether these countries are predominantly developed or developing economies. Of particular interest is whether ESG ETFs show a tendency to concentrate their investments within specific regions—such as the European Union—known for more robust sustainability frameworks and regulatory environments. If such a concentration exists, the study will further analyze whether this pattern reflects a cautious, risk-averse investment strategy that favors stability over diversification, or whether it indicates a deeper alignment with countries actively advancing ESG agendas. By shedding light on these geographic preferences, the research aims to contribute to a more nuanced understanding of ESG ETFs, offering valuable insights for investors, policymakers, and scholars interested in sustainable finance. The findings could also have broader implications for global capital flows, particularly for developing countries seeking to attract ESG-aligned investment.

Keywords: ESG ETF, Country Allocation, Investment Concentration, Emerging Markets, Developed Countries, Sustainable Investment, Portfolio Distribution, ETF Comparison

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MODELLING BORSA ISTANBUL 30 INDEX VOLATILITY: APPLICATION OF ARCH AND GARCH MODELS

Tuğberk ÇİTİLCİ¹⁴⁹

Abstract

Volatility and modeling of volatility in financial markets play an important role in investors' financial decisions. Modeling volatility in the decision-making mechanism in the context of risk and return has recently become quite widespread in time series econometrics and finance. While the calculation of variance or standard deviation of returns is effective in the traditional volatility calculation approach, these methods are not sufficient since the wavelength experienced in financial assets is high and permanent. While variance is assumed to be constant over time in time series calculations, the assumption of variable variance instead of constant variance is prominent in the calculation of financial time series. Therefore, ARCH and GARCH models, which are used for modeling volatility and accept the variable variance approach, stand out. In the study, the volatility of Borsa Istanbul 30 index return for the period 2015-2025 was modeled with ARCH and GARCH models. First, the ARMA model was created and then the AR (4) – MA (4) model, which is the most suitable model, was created with ARCH and GARCH models. After comparing which of the ARCH and GARCH models is more successful, the GARCH (1,1) model was the most successful model in modeling the volatility of Borsa Istanbul 30 index returns. The result is similar to both foreign and domestic literature, showing the superiority of the GARCH (1,1) model over the ARCH model.

Keywords: Volatility, ARCH, GARCH, Conditional Heteroscedasticity, BIST 30 Index.

EXAMINING PRICE BUBBLES: AN APPLICATION ON THE US NASDAQ INDEX

Tuğberk ÇİTİLÇİ¹⁵⁰

Abstract

While the formation of bubbles in asset prices has been effective throughout history, financial frenzy such as tulip bulbs, South Sea Company, Mississippi Company, British Railway, the Great Crash of 1929, Dot-com, and the US mortgage crisis have come to the fore. A price bubble can generally be defined as the deviation of the asset price from its fair value. At this point, the irrational actions of the pricing crowd and their involvement in herd psychology support the formation and cycles of price bubbles. Right-tailed SADF (Sup Augmented Dickey-Fuller Test) and GSADF (Generalized Sup Augmented Dickey-Fuller Test) tests, which are widely used econometric analysis methods, were selected for the detection of price bubbles in financial markets. In this study, right-tailed unit root tests were applied from econometric analysis for the detection of price bubbles in the Nasdaq100 index, one of the US stock market indices, in the 2020-2025 period. Right-tailed tests SADF and GSADF tests were applied. Since the SADF and GSADF test results are less than the critical values of 1%, 5% and 10%, the H_0 hypothesis (no bubble) has been accepted. As a result, by accepting the H_0 hypothesis, no price bubble formation could be detected in the Nasdaq 100 index on a weekly basis in the 2020-2025 period.

Keywords: Price Bubbles, SADF Test, GSADF Test, Monte Carlo Simulation, Nasdaq100 Index

DYNAMICS OF HOUSE PRICE MOVEMENTS IN TÜRKİYE: PERMANENT SHOCKS OR TEMPORARY FLUCTUATIONS?

İzzet Ulvi YÖNTER¹⁵¹, Mehmet ALTUNTAŞ¹⁵²

Abstract

Price movements in the housing market have an impact on housing and rental costs as well as on the wealth accumulation of investors trading in the housing market. Therefore, it is important to investigate the price movements in the housing market. Existing studies using various econometric methods have failed to reach a consensus on whether shocks to house prices in Türkiye are permanent or not. The main objective of this study is to provide new insight into this debate by applying an updated panel unit root test that models structural breaks in Fourier form under common factors unlike the existing studies in literature. In addition, it is aimed to present comparative findings by modelling structural breaks in both sharp and smooth form under the common factor. The analyses are conducted both at the country level and at the regional level (Level 2 - 27 Regions). In this context, the study also contributes to the limited literature analysing house prices at regional level. For this purpose, the house price index data organised by Central Bank of the Republic of Türkiye (CBRT) is used. Monthly data is used as data frequency and the analysis covers the period 2010:01-2024:01. When the empirical findings are analysed at the country level, it is observed that the shocks in the house price index are permanent according to the result obtained from the panel unit root test modelling the structural breaks in sharp form, while the shocks are transitory according to the panel unit root test modelling the structural breaks in Fourier form. When the results are analysed at the regional level, the shocks to the house price index are transitory in 4 out of 27 regions when the sharp form of breaks under common factors is taken into account, while the shocks are transitory in 16 out of 27 regions when breaks are considered in Fourier form. These findings suggest that the persistence of shocks in the housing market in Türkiye differs according to the type of structural breaks (sharp/smooth). In line with the findings, policymakers should adopt different strategies according to the nature of housing price shocks. In the face of sharp and sudden breaks, shocks should be prevented from becoming permanent through rapid and targeted interventions. In smooth and gradual changes, long-term planning and supply-enhancing policies should be preferred.

Keywords: House prices, sharp and smooth breaks, common factors, panel unit root.

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A REGRET-BASED APPROACH TO THE PORTFOLIO OPTIMIZATION PROCESS

Osman Emre ARLI¹⁵³

Abstract

The portfolio selection approach developed by Markowitz has formed the basis of modern portfolio theory. In addition to Markowitz's view, which focuses on return and mean variance in the effort to create the optimal portfolio, the regret factor has been added to the model in this study. In portfolio optimization that includes regret, variance is calculated based on regret and included in the model. For investors who avoid regret, portfolio optimization has been performed according to two different regret views; return and preference-based regret. In order to determine the differences between Markowitz's portfolio optimization and regret-based portfolio optimization, 5 companies included in the BIST 30 index were selected using daily data between the years 2003-2023. In addition, the portfolio created from gold, which is considered a safe haven, and the BIST 100 index were also examined. According to the results, significant differences emerge in the portfolio distribution calculated according to regret in both the stock portfolio and the portfolio containing gold. In addition, differences were observed between the returns.

Keywords: Portfolio Optimization, Regret Avoidance, Regret Risk

RELATIONSHIP BETWEEN ESG-BASED SUSTAINABILITY UNCERTAINTY INDEX AND STOCK MARKET IN OECD COUNTRIES

Berna DOĞAN BAŞAR¹⁵⁴

Abstract

Today, risk and uncertainty are of great importance for all markets traded in the world. This situation can be seen more clearly especially in country stock market, which are the most active markets of financial markets. In fact, economic, political and financial uncertainties in the world's leading country stock markets cause loss of returns. In this study, this situation was investigated in 17 selected OECD countries (Australia, Belgium, Canada, Chile, France, Germany, Greece, Ireland, Italy, Japan, Mexico, Netherlands, South Korea, Spain, Sweden, UK, US) that are economically developed, industrialized and have high living standards. Accordingly, the existence of a relationship between the ESG-Based Sustainability Uncertainty Index (ESGUI) calculated for each country between November 2005 and September 2024 and the stock markets of the countries was questioned. Westerlund panel cointegration test and Dumitrescu-Hurlin panel causality analysis were used to reach empirical results. As a result of the Westerlund cointegration test, it is seen that there is a long-term cointegration relationship between ESGUI and country stock markets. In the Dumitrescu-Hurlin Panel Causality test, it is determined that there is no causality between ESGUI and country stock markets. When the results obtained were evaluated on a country basis; there is a bidirectional causality relationship between ESGUI and stock markets for Mexico and UK. Apart from this, there is a unidirectional causality from stock markets to ESGUI for the Netherlands and Spain, while there is a unidirectional causality from ESGUI to stock markets for the US.

Keywords: ESG-Based Sustainability Uncertainty Index, Stock Market, OECD, Dumitrescu-Hurlin Panel Causality

THE MEDIATING ROLE OF FINANCIAL DEVELOPMENT IN THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND HAPPINESS

Mine IŞIK¹⁵⁵

Abstract

This study aims to examine the potential mediating role of financial development in the relationship between economic growth and happiness. While economic growth is generally considered a fundamental determinant of welfare, studies conducted within the framework of happiness economics in recent years have revealed that economic growth does not always enhance individual happiness. Findings in the literature suggest a complex and bidirectional relationship between happiness and economic growth. The fact that the effect of economic growth on happiness is not direct and one-dimensional necessitates the examination of this relationship through structural factors such as financial development. The significant decline in individuals' happiness levels worldwide during the Covid-19 pandemic constitutes the focal point of the data set and period of this study. These declines are associated not only with factors such as social isolation and health concerns but also, and especially, with economic uncertainty and financial fragility. A strong and inclusive financial system emerges as a critical factor in maintaining individual happiness during periods of crisis. Although numerous studies have investigated the direct relationship between economic growth and happiness, the structural role of financial development in the interaction between these two variables has not been sufficiently explored. The fact that the effect on happiness is not one-dimensional with economic growth and that it offers a more holistic analysis by taking into account the existence of intermediary mechanisms that shape this effect reflects the importance of this study. In the light of the data obtained from 124 countries in the study, it was determined that financial development played a mediating role in the transition from economic growth to happiness of individuals in the pre-pandemic (2019), pandemic period (2020) and post-pandemic (2021) periods. It can be stated that the study contributes to a comprehensive understanding of both economic and psychological well-being and provides a basis for the formulation of more effective development strategies for policy makers.

Keywords: Economic Growth, Financial Development, Happiness, Mediation Effect

INITIAL PUBLIC OFFERING INDEX AND ITS RELATIONSHIP WITH MACROECONOMIC VARIABLES

Serap VURUR¹⁵⁶

Abstract

Initial public offerings (IPOs) are an important indicator of the vitality of capital markets and investors' risk appetite. The IPO index reflects these trends, enabling companies to make strategic decisions based on market conditions and allowing for the monitoring of investor sentiment toward the market. Therefore, identifying the macroeconomic and financial factors that influence the IPO index plays a critical role in understanding market dynamics. In this context, the study aims to empirically examine how the IPO index in Türkiye has responded to macroeconomic factors during the period from June 2012 to March 2025. In the study, the macroeconomic variables used include the exchange rate (USD/TRY), gold prices, interest rates, and the consumer confidence index. Since all variables are stationary at their first differences, the Johansen cointegration analysis was employed to test for a long-term relationship. The results of the Johansen cointegration test indicate the presence of a cointegrating relationship among the variables. The impact of macroeconomic variables on the IPO index was examined using quantile regression analysis. The results indicate that gold prices have a negative effect at the 20th, 60th, and 80th quantiles; interest rates exhibit a positive effect at the 60th quantile; the consumer confidence variable has a positive effect up to the 80th quantile; and the exchange rate (USD/TRY) shows a positive impact across all quantiles beyond the 20th.

Keywords: Initial Public Offering(IPO) Index, Exchange Rate, Gold Prices, Consumer Confidence, Quantile Regression

THE DYNAMICS OF CREDIT ACCESS IN DEVELOPING COUNTRIES: AN EMPIRICAL ANALYSIS ON THE DETERMINANTS OF CREDIT TO THE PRIVATE SECTOR

Münevvere YILDIZ¹⁵⁷, Kenan İLARSLAN¹⁵⁸

Abstract

The private sector plays a vital role in the development processes of national economies by contributing to poverty reduction through job and employment opportunities, fostering an entrepreneurial culture with the emergence and implementation of innovative business ideas, and enhancing knowledge accumulation through the development of new technologies. One of the major challenges the private sector faces in fulfilling these contributions is access to finance. In developing countries, where capital scarcity is a common issue, the need for financing in the private sector becomes even more critical. Through the provision of credit to the private sector, resource allocation supports production, consumption, and capital formation. However, identifying the factors that influence this resource transfer is crucial for ensuring the efficiency and effectiveness of the process. This study aims to provide empirical evidence on the roles of inflation, financial development, and the rule of law in domestic credit to the private sector, based on a sample of 54 developing and emerging countries over the period 2002–2021. According to the results obtained using the System GMM dynamic panel data estimator, financial development and the rule of law have a significant and positive impact on credit to the private sector, while inflation has a significant and negative effect.

Keywords: Credit to the private sector, financial development, inflation, rule of law, System GMM dynamic panel data method

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FISCAL DECENTRALISATION IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS

Mustafa Göktuğ KAYA¹⁵⁹, Yiğit YILDIZ¹⁶⁰, Perihan Hazel KAYA¹⁶¹

Abstract

Sustainable development is an inclusive concept that includes many sub-objectives. When the general characteristics of these objectives are analysed, it will be seen that they are closely related to local level practices. In other words, sustainable development goals such as clean water, waste management, sustainable cities require some local scale practices that fall within the jurisdiction of local administrations. These local practices can play a key role in the transition to circular economy. Thus, local administrations can be the main actor in the provision of circular economy. Nevertheless, the insufficient resources of local administrations can often be a constraint in the realisation of the above-mentioned practices. The aim of this study is to reveal how fiscal decentralisation, which can be defined as increasing the resource management and taxation powers of local governments, can play a catalytic role in the transition to circular economy, which is critical in achieving sustainable development goals. With this feature, the study is the first in its field and is expected to contribute to the literature.

Keywords: Sustainable Development, Circular Economy, Fiscal Decentralisation

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THE ECONOMIC OUTLOOK OF WORLD WAR II

Perihan Hazel KAYA¹⁶²

Abstract

With the proclamation of the Republic, major obstacles in front of Türkiye, whose regime was determined, were removed and radical changes were tried to be implemented in many areas. While there were economic developments with the liberal and statist policies made during the Atatürk period, the economic crisis of 1929, which occurred as a result of the collapse of the Wall Street Stock Exchange in the United States of America, affected the whole world. The economic crisis was one of the main causes of World War II. The war lasted from 1939 to 1945 between the world's great powers; military groups called the Allies and Axis. Türkiye tried to maintain its neutrality throughout the war, and although it joined the Axis bloc towards the end of the war, it did not actually participate in the war. After World War II, restructuring processes started in many parts of the world and economic and trade relations between countries became important. The establishment of international organizations laid the foundation for cooperation and technological progress accelerated. In this study, the general situation of the world economy before World War II, the economic difficulties that increased with the war, and the developments after the war are discussed.

Keywords: 1929 Great Depression, World War II, Liberalism, Statism

CROSS- BORDER ECONOMIC MOBILITY: A RESEARCH ON THE IMPACT OF GREEK AND BULGARIAN VISITORS IN EDİRNE

Göktaş GÜÇYENER¹⁶³, Ebru Z. BOYACIOĞLU¹⁶⁴

Abstract

Cross-border mobility constitutes a dynamic process that fosters regional development through international socio-economic cooperation among neighboring border cities. The extent of such mobility contributes to economic outcomes in proportion to the depth of inter-country relations. Edirne, which serves as one of Türkiye's strategic gateways to Europe, holds a significant position as a case study for examining the tangible impacts of cross-border interactions. Edirne ranks as the third most visited city by foreign tourists in Türkiye and benefits from its direct access to Europe via land border gates with Greece and Bulgaria. The recent depreciation of the Turkish lira has rendered Edirne an economically attractive destination for foreign visitors, further enhanced by its rich historical and cultural heritage, making the city a prominent center of attraction, particularly for Greek and Bulgarian tourists. The aim of this study is to examine the effects of cross-border mobility on economic growth in Edirne. Annual data covering the period between 2005 and 2022 were analyzed using the ARDL bounds testing approach, along with causality tests. The long- and short-term relationships between Edirne's per capita gross domestic product (GDP) and the number of visitors from Greece and Bulgaria, as well as the number of foreign guests accommodated in both licensed tourism facilities and municipality-certified accommodation establishments, were empirically tested. The findings reveal that cross-border mobility generates positive economic interactions for Edirne and, in turn, contributes significantly to the region's development trajectory.

Keywords: Cross- Border Mobility, Foreign Trade, Edirne, Greek, Bulgarian

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EVALUATION OF IMPORTANCE OF GOVERNMENT SUPPORT ON R&D EXPENDITURES IN OECD COUNTRIES

Yasemin TAŞKIN¹⁶⁵, Müzeyyen Özlem ÇETİN¹⁶⁶

Abstract

It is considered that the technological developments provide to benefit to make the work quickly, less mistakes and lower costs and will increase the quality of life and welfare of society. At the same time, the technological developments need to be followed closely for not be in the disadvantages situation in international trade in the globalizing world. These opinions about technological developments increase to sensibility on Research and Development (R&D) and lead to give importance to technology-intensive investments. According to OECD data, the ratio of Gross Domestic R&D Expenditures to GDP (last available ten-year period 2013-2023) was generally increased in OECD countries. The high returns expected from R&D activities increase the importance of government support for R&D investments. The government supports to R&D are generally divided two. Direct supports which include cash supports and indirect supports, which mainly include tax incentives. The aim of the study is to evaluate the effect of government R&D supports on Gross Domestic R&D Expenditures. In the context of this research the OECD documents about this topic were examined and the data were evaluated which obtained from OECD data base. Considering the data accessible within the scope of the research, it was found that in OECD countries where R&D state support is relatively high, the ratio of Gross Domestic R&D Expenditures to GDP is generally relatively higher.

Keywords: Research and Development (R&D), Gross Domestic Expenditure on R&D, Government Support on R&D Expenditures

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ANALYSIS OF THE RELATIONSHIP OF PUBLIC EMPLOYMENT AND ECONOMIC GROWTH: THE FOURIER NARDL APPROACH

Ersin YAVUZ¹⁶⁷

Abstract

The aim of the paper is to empirically investigate the impact of public employment on economic growth in Türkiye. The paper, which covers the period 2007Q1-2024Q1, examines the nexus between the variables using the Fourier NARDL approach. Since this approach considers nonlinear fluctuations and Fourier breaks, it can explain the characteristics of the data structure more robustly compared to other cointegration approaches. According to the results of the analysis, there is a long-run relationship between public employment, inflation, unemployment, public expenditures and economic growth. The long-run coefficient findings confirm the nonlinearity in the nexus between public employment and economic growth. Accordingly, positive shocks to public employment suppress economic growth, while negative shocks stimulate it. In addition, empirical evidence reveals that unemployment and public expenditures have a negative impact on economic growth, while inflation has a positive impact. The results of the research point to the need to regulate public employment policies in a way to promote economic efficiency. The paper discusses the problems in public employment and provides policy recommendations on how to improve the quality of human capital in the public sector.

Keywords: Public employment, economic growth, Fourier NARDL

ANALYSIS OF THE RELATIONSHIP BETWEEN PUBLIC EXPENDITURES AND ECONOMIC GROWTH WITH WESTERLUND (2007) PANEL COINTEGRATION TEST

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Abstract

One of the purposes of fiscal policy is to ensure economic growth. With the development of functional fiscal policy, the idea of using fiscal policy to achieve economic growth has been adopted. In this context, some economists argue that public expenditures will increase economic growth. On the other hand, some economists state that economic growth increases public expenditures. According to Keynes, an increase in public expenditures will create a pump-priming effect and will ensure economic growth together with the multiplier. Wagner argues that the increasing needs of people (infrastructure, etc.) as a result of economic growth will increase public expenditures. There is no consensus on this issue in the literature. The aim of this study is to analyze the relationship between public expenditures and economic growth using empirical methods. In this context, Westerlund (2007) panel cointegration and Hatemi J (2012) panel asymmetric causality tests are used for annual data covering the period 2001-2023 for Brazil, China, Egypt, India, Iran, Russia, South Africa, United Arab Emirates (BRICS) and Türkiye. The findings obtained show that the panel has a cointegration relationship. In addition, concrete evidence supporting Wagner in positive shocks and Keynes in negative shocks is presented. In this context, it is understood that expansionary fiscal policy should be implemented in order to achieve economic growth goals in crisis periods in BRICS-T countries.

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SOCIAL MEDIA-BASED PUBLIC PERCEPTIONS OF THE BUDGETING PROCESS IN Türkiye: A QUALITATIVE ANALYSIS

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Abstract

This study aims to make a significant contribution to the literature in this field by examining the participation of social media users in budgeting processes and how their perceptions of these processes are shaped. The main focal points of the study are the extent to which discussions on social media platforms can influence budgeting processes, their potential to raise public awareness on these processes and how they shape users' level of participation. In this context, the study aims to discuss how the integration of digital communication tools into public decision-making mechanisms can contribute to strengthening participatory democracy. The study is qualitative research based on content analysis using MaxQDA software. While creating the social media content analysis, users' messages were categorized into three main groups. These are government representatives, freelancers and citizens. The study was structured around two main code themes, 'supportive' and 'critical', with various sub-codes of the themes. This study aims to analyze the perceptions of social media users on budgeting processes and parliamentary debates within the framework of three different actor groups: government representatives, freelancers and citizens. This tripartite structure offers a multidimensional and holistic approach to analyze how discussions and interactions on social media shape both decision-making processes and public perceptions of these processes. Taking the budget process and parliamentary debates in Türkiye as an example, the study examines the effects of social media discussions on decision-making processes at the perceptual level. When the findings within the scope of the study are evaluated, it can be said that the themes of freelancers and citizens are mostly shaped around the critical code, while the messages belonging to the theme of government representatives consist entirely of supportive code. This situation reveals that there is a significant divergence in the attitudes and approaches of different user groups towards budgeting processes and shows that especially non-governmental actors have a critical perspective towards the processes.

Keywords: Budgeting Process, Social Media, Budget Perception

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PRICING OF EXTREME NEGATIVE RETURNS IN BORSA ISTANBUL

Murat TİNİÇ¹⁷³, İrem DAŞTAN¹⁷⁴

Abstract

This paper examines the systematic impact of extreme negative returns in Borsa Istanbul (BIST). For all stocks traded in Borsa Istanbul between 2005 and 2024, we form portfolios based on daily minimum returns (MIN factor). In line with the studies documented for developed markets such as the United States, we observe that the MIN factor is also priced in BIST even after controlling for other fundamental pricing factors. However, unlike the previous studies, our results underline that stocks providing extreme negative returns tend to be overpriced rather than underpriced in BIST. The average monthly return premium on the zero investment MIN factor portfolio is around -2%, indicating that the MIN factor is also economically significant. The economic significance of the MIN factor is stronger under short-selling restrictions, potentially because of limits to arbitrage. Overall, these results support the expectations of the disposition effect.

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A BIBLIOMETRIC ANALYSIS ON GREEN GROWTH: CURRENT TRENDS WITH WOS DATA

Ahmet ATAKIŞI¹⁷⁵, Ali ERDOĞAN¹⁷⁶, Erdem ÖNCÜ¹⁷⁷, Onur USTAOĞLU¹⁷⁸

Abstract

A clean, environmentally sustainable economy that also supports people's health and well-being is known as the green economy. Sustainable development, which involves growing our economies in ways that support social justice, fairness, and the environment, is the foundation of the green economy. A component of the green economy, green growth seeks to advance economic growth without destroying the environment or depleting natural resources. By generating new job opportunities using sustainable technology and renewable energy, green growth seeks to boost economic competitiveness. The basic goal of green growth is to fight climate change while preserving human health and social well-being. The purpose of this study was to assist future researchers studying green growth. The WOS Viewer application was used to view the data of 3503 articles on green growth that were taken from the WOS index on December 30, 2024. The study's main conclusions indicate that there have been more research conducted on the topic, particularly in recent years. Examining the citation and co-authorship statistics reveals that Chinese studies have dominated the field in recent years. After analyzing the keywords, it was determined that "Sustainability" and "Sustainable Development" were the subjects most closely associated with "Green Growth".

Keywords: Green Growth, Sustainability, Index Analysis

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ON THE BRINK OF A NEW WORLD ORDER: TURKISH CAPITAL MARKETS FACING ASYMMETRIC SHOCKS OF UNCERTAINTY FACTORS

Merve TUNCAY¹⁷⁹

Abstract

The economic and political instability in the world has made the impact of uncertainties in capital markets more salient and affects investors' decisions especially since the pandemic period, on the other hand, Turkish capital markets have been operating under the pressure of various uncertainty factors stemming from both domestic and foreign political or economic dynamics. Hence, it is quite crucial for policymakers and investors to reveal the effects of increasing economic and geopolitical uncertainties on the markets during this global transformation process in order to take the right steps in such an environment.

In accordance with the aim of this study, the asymmetric effects of uncertainties in 10-year government bond yields, gold (ounce) and Brent crude oil prices as well as the geopolitical uncertainty index (GPR), trade policy uncertainty index (TPU) and climate policy uncertainty index (CPU) on selected stock market indices are investigated by the nonlinear lagged autoregressive (NARDL) model for the period 2015-2025. According to the findings, the selected uncertainty factors have asymmetric effects on stock market indices in different directions and to different magnitude. The findings are expected to provide not only a meaningful contribution to the existing literature but also provide a framework for the position of the Turkish stock markets during the transformation process.

Keywords: Global Uncertainty Factors, Asymmetric Shocks, Borsa Istanbul, NARDL.

DETERMINANTS OF FINANCIAL DEVELOPMENT IN BRICS+ COUNTRIES

Güven DELİCE¹⁸⁰, Ayşegül TOY¹⁸¹

Abstract

The aim of this study is to analyse the factors affecting the financial development (FD) of countries through BRICS+ countries. A well-developed and efficiently functioning financial system increases savings, finances investment projects by channelling funds to the needed productive areas and has significant effects on sustainable economic development, growth and economic stability. The level of FD of countries and its determinants have been the subject of intense interest for researchers and policy makers and numerous studies have been conducted in the literature. In these studies, many variables such as legal, institutional frameworks, macroeconomic indicators and openness policies have been analysed. The contribution of this study to the literature is that it focuses on the effects of financial technology(Fintech) and Economic Freedom Index(EFI) variables, which have not been examined much, and the effects of foreign direct investment(FDI) and trade openness(TA) variables on FD, which have been examined intensively. The issue is addressed through BRICS+ that has not yet been sufficiently analysed in the literature. In the study, annual data for the period 2012-2023 are subjected to Panel ARDL analysis; Global Fintech Index (GFI), EFI, FDI and TA variables are considered as independent variables, while FD variable is modelled as the dependent variable. As a result of the analysis conducted with the panel ARDL MG estimator, statistically significant results were obtained except for the EFI variable. It is found that the relationship between the GFI, TA and FDI and FD is positive and significant in these countries, and increases in these variables improve FD. By financial stability, besides the important opportunities offered to the financial system by the developments in Fintech, the risks should also be managed effectively.

Keywords: Financial Development, Financial Technology, Economic Freedoms, Trade Openness, Foreign Direct Investment

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VOLATILITY MODELING AND SPILLOVER: RESEARCH ON DIGITAL FINANCE, ARTIFICIAL INTELLIGENCE AND GREEN BOND INDICES

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Abstract

This study analyzes the volatility dynamics and spillovers among Fintech, artificial intelligence and green finance indices. The findings reveal that the pandemic caused volatility clustering across all indices. According to the EGARCH(1,1) model, shocks have a more persistent effect on Fintech volatility than other indices, and adverse shocks are stronger than positive ones. Half-life analysis reveals that shocks in Fintech volatility have a lasting impact of approximately 4.93 days. TGARCH(1,1) model findings indicate that current volatility in AI and green bond indices is primarily driven by shocks in the current period and that leverage effects are present in these markets. The impact of shocks lasts 6.64 days in the AI index and 6.61 days in the green bond index, with the AI market identified as the market where shocks have the most persistent effects. According to the results of the CCC-TGARCH model, volatility in the FinTech market causes risk spillovers to other sectors. Additionally, it has been found that volatility in the AI market also impacts the FinTech market. These findings suggest a strong integration between the FinTech and AI sectors, as well as shared risk dynamics and persistent, reciprocal volatility shocks. However, the green bond market has a predominantly shock-absorbing and less shock-transmitting structure. The results provide important implications for risk management in sustainable finance and technology-based markets.

Keywords: Fintech, Artificial Intelligence, Green Bonds, Volatility Spillover

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TECHNOLOGICAL TRANSFORMATION IN VISUAL DESIGN AFTER 1980 AND THE IMPACT OF ARTIFICIAL INTELLIGENCE APPLICATIONS ON EMPLOYMENT

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Abstract

Since the 1980s, the emergence of visual design software equipped with user interfaces similar to those used today has significantly transformed labor demands in the sector, turning traditionally trained professionals into individuals who are more compatible with computer technologies and open to innovation. During this period, digital designs created using such software were initially met with skepticism and were not afforded the same professional respect as traditionally produced works. A similar pattern is now being observed with content generated through artificial intelligence (AI) applications. However, the industry's increasing demand for rapid and practical solutions has made adaptation to innovation inevitable, often sidelining these ethical debates. While visual design programs have long offered ease of use, practical features, and so-called “smart” capabilities such as data memory and automation, none have matched the effectiveness, precision, variety, and assistant-like functionality that AI-based image generation technologies have demonstrated in recent years. These developments, which allow for quicker and more effortless project production, are directly impacting individuals who carry out repetitive and technically oriented tasks with minimal creative input. This shift is expected to significantly influence both the qualifications and the number of professionals entering the sector, particularly affecting young and entry-level workers as well as those producing high-volume content for digital platforms. This study investigates how the advancement of AI applications is affecting employment and professional qualifications in the field of visual design. Within this context, the sectoral demands influenced by AI, changes in required worker competencies, and impacts on employment have been examined through expert interviews. Semi-structured interviews were conducted with professionals working in visual design and academics from related disciplines to assess the current state of the industry, future workforce needs, and young professionals' perspectives on working life. Discourse analysis was used to evaluate the data. During the interviews, participants were asked about the stages at which they utilize AI tools in their design processes, the challenges and advantages they experience, current expectations from AI technologies, and potential changes in workflow structures within design teams due to future AI advancements. The analysis concluded that while the development of AI applications may reduce the overall demand for human labor in visual design, it simultaneously increases the value of qualified professionals who are innovative, ethically grounded, research-oriented, and adaptable to new technologies.

Keywords: Graphic Design, Artificial Intelligence, AI-generated Content, Creative Industries.

THE NATURE AND DEVELOPMENT OF FOREIGN TRADE OF THE REPUBLIC OF CHAD IN THE PERIOD AFTER 2000¹⁸⁷

Moussa Ali HASSAN¹⁸⁸

Abstract

In the post-2000 period, the foreign trade structure of the Republic of Chad has undergone a significant transformation. During this period, the country's trade strategies and foreign trade relations have been shaped in line with the goals of processing natural resources and increasing industrial production. Chad's foreign trade is generally based largely on the export and import of raw materials and natural resources. However, certain changes and developments have been observed in the nature of foreign trade during this period. Chad has experienced a significant transformation in its foreign trade, especially after the oil discoveries. In the post-2000 period, there has been an increase in the import and export of oil and petrochemical products, which has greatly affected the country's economic structure. Oil has been a determining factor in Chad's relations with its foreign trade partners, especially China, the UAE and France. In addition, China's increasing economic investments in Chad have led to a rapid increase in its trade volume with Asia. The development of foreign trade has manifested itself not only in relations with major trade partners, but also in regional and multilateral trade agreements. Chad has been included in regional cooperation agreements thanks to its membership in trade blocs on the African continent and has sought to increase its trade volume within the framework of these agreements. However, difficulties encountered in Chad's foreign trade include logistics and infrastructure deficiencies, low production capacity and uncertainties in trade policies. This situation creates obstacles to increasing domestic trade and production, especially in Africa. On the import side, Chad has increased its imports of industrial equipment, construction materials and technological products in the post-2000 period, and countries such as Türkiye, China and the UAE have emerged as the main suppliers of these products. Imports from Türkiye have shown significant increases, especially in the construction sector, agricultural machinery and food products. This diversification in Chad's import structure has been shaped in line with the country's infrastructure projects and industrial sector development goals. Another important development in Chad's foreign trade in the post-2000 period is that trade between countries has concentrated more on product groups such as petroleum and energy products, automotive, electronics and textile products. However, the fact that trade relations between countries have become more strategic also indicates the transformation in Chad's foreign trade policy. In particular, the increase in trade volume with countries such as France and China has allowed Chad to become more involved in global trade networks. The Republic of Chad's foreign trade has become more diversified and complex in the post-2000 period, and the integration process into the global economy has accelerated. However, the need for infrastructure development, increased production capacity and more support for local industry continues to increase the quality of trade. These developments in Chad's foreign trade allow for the more effective implementation of strategic economic goals at both national and international levels.

Keywords: CHAD, Republic, Foreign Trade, Quality, Development.

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FINANCIAL PERFORMANCE ANALYSIS OF DEFENCE INDUSTRY COMPANIES LISTED ON THE BIST: EVIDENCE FROM LOPCOW-BASED CODAS AND TOPSIS APPROACHES

Emre KILIC¹⁸⁹, Tahsin AVCI¹⁹⁰, Şevket PAZARCI¹⁹¹

Abstract

The purpose of this study is to examine the financial performance of defence industry companies listed on the BIST (ASELS, OTKAR, PAPIL, SDTTR, ALTNY, ONRYT and KATMR). Eight financial indicators are used as decision criteria to measure financial performance: current ratio, cash ratio, leverage ratio (%), asset turnover, inventory turnover, receivables turnover, net profit margin (%) and return on equity (%). In the empirical analysis, the LOPCOW method is first used to determine the criterion weights. Then, the financial performance of the companies is ranked using the CODAS and TOPSIS methods. The findings indicate that net profit margin (%) is the most important criterion, while the cash ratio is the least important criterion. In the financial performance rankings determined using the CODAS method, KATMR is identified as the most efficient company. Following KATMR in the ranking are ASELS, ALTNY, ONRYT, and PAPIL, respectively. On the other hand, the company with the lowest performance is OTKAR. This table shows that KATMR stands out in terms of operational efficiency and profitability, while OTKAR showed lower financial performance compared to other companies during the period under consideration. At last, financial performance is re-examined using the TOPSIS method to test the robustness of the results. The rankings obtained largely support the findings obtained using the CODAS method.

Keywords: Defense Industry, Financial Performance, Multi-Criteria Decision-Making, CODAS, TOPSIS

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ESG PERFORMANCE PREDICTION BY MACHINE LEARNING¹⁹²

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Abstract

In recent years, Environmental, Social, and Governance (ESG) performance has gained significant prominence in both academic research and investment decision-making processes. However, in emerging markets such as Türkiye, limited access to consistent ESG data has heightened the need for data-driven prediction methods in this area. This study aims to predict the ESG scores of publicly listed companies in Türkiye using a machine learning-based approach grounded in firm-level financial indicators.

The dataset employed in this research covers companies listed on Borsa Istanbul between 2004 and 2023 and was obtained from the Thomson Reuters Eikon database. It includes ESG scores (continuous variables ranging from 0 to 100), ESG grades (categorical classes such as A, B, C), and annual financial data of the firms.

The methodological framework encompasses data preprocessing, feature selection, hyperparameter optimization, and model comparisons. ESG scores were predicted using various regression algorithms. Among the tested machine learning algorithms, the Gradient Boosting Regressor demonstrated the best performance in regression analyses. Additionally, the Random Forest algorithm was utilized as a complementary method in variable importance analysis and classification tasks. Through feature importance evaluations, the most influential financial indicators on ESG performance were identified.

Preliminary findings indicate that the Gradient Boosting and Random Forest models produced the most accurate predictions of ESG scores. According to the results, variables such as Total Assets and Total Equity emerged as the most significant predictors of ESG performance. In this context, the study is expected to contribute to the ESG prediction literature and offer a more systematic, data-driven framework for assessing sustainability performance in emerging markets.

Keywords: ESG (Environmental, Social, and Governance), Machine Learning, ESG Score Prediction

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COGNITIVE BIASES AS ALGEBRAIC STRUCTURES: A FORMAL FRAMEWORK FOR AGENT-BASED LEARNING IN FINANCIAL DECISION-MAKING

Ömür SALTİK¹⁹⁵

Abstract

This study conceptualizes cognitive biases not merely as decision errors but as algebraic operators that generate systematic transformations within preference structures. Each bias applies a specific structural deformation to the individual's utility function, thereby reshaping — rather than disrupting — the decision-making process. Through this approach, cognitive biases are mapped onto distinct algebraic structures (such as monoids, lattices, and Boolean algebras), enabling formal simulation of individual behaviors and analytical examination of the compositional effects of multiple transformations. Addressing a critical gap in the literature—where biases are typically modeled through empirical data or classified heuristically—this study introduces a mathematical representation of cognitive biases, expands classical preference theory through algebraic transformation theory, and adds a new theoretical dimension to behavioral economics. Furthermore, the proposed framework offers an original contribution by enhancing the structural depth of agent-based simulations and providing an algebraic reinterpretation of bounded rationality.

Keywords: Cognitive Biases, Algebraic Structures, Agent-Based Modeling, Preference Transformation, Behavioral Economics

HOW TO SAVE PEACEKEEPING? AN INNOVATIVE FINANCING PROPOSAL FOR UN PEACEKEEPING OPERATIONS

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Abstract

Peacekeeping is at risk of collapse. This paper explores the innovative concept of financing United Nations (UN) peacekeeping operations (PKOs) through the use of crypto assets as a means of revitalizing UN PKOs and strengthening global peace and security. UN PKOs are chronically underfunded, which can lead to delayed deployments, equipment shortages, and reduced effectiveness. This funding problem is necessarily involved with the member states which act in their own self-interest and may be reluctant to contribute sufficient funding. The situation has become even more critical due to the recent trend of major contributors withdrawing or reducing their financial support, further exacerbating the funding gap and threatening the operational capacity of UN PKOs. This paper makes theoretical and practical contributions by proposing an alternative financing method to UN peacekeeping budget with digital tokenization based on blockchain technologies. A governance token model is proposed, titled as Peace Token (PAX). The concept of tokenization as an alternative financing method provides a pathway to involve a broader range of contributors and investors in UN PKOs. With the proposed funding method, not only UN member states but also financial institutions and individual investors could play a role in supporting, and even selecting, UN peacekeeping efforts. Despite the challenges posed by regulation and volatility, the proposed approach holds promise for revolutionizing the financing of PKOs, contributing to enhanced global peace and security, and calls for further research to fully comprehend its feasibility and potential implications.

Keywords: Crypto currency, governance token, United Nations, peacekeeping operations, funding

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EXAMINATION OF FINANCIAL LEASING TRANSACTIONS WITHIN THE FRAMEWORK OF THE TAX PROCEDURE LAW (VUK) AND THE FINANCIAL REPORTING STANDARD FOR LARGE AND MEDIUM-SIZED ENTERPRISES (BOBİ FRS): A COMPARATIVE CASE STUDY¹⁹⁸

Merve TURGUT¹⁹⁹

Abstract

Financial leasing is one of the financing methods frequently used by businesses today to meet their fixed asset needs, reduce investment costs, and manage liquidity requirements. These transactions involve different accounting and tax implications for the lessee and the lessor. In Türkiye, the financial reporting processes of businesses are primarily based on the Tax Procedure Law (VUK) and the Financial Reporting Standard for Large and Medium-Sized Enterprises (BOBİ FRS).

The main objective of this study is to identify the fundamental differences between VUK and BOBİ FRS in the accounting treatment of financial leasing transactions. Within the framework of BOBİ FRS, a theoretical comparison is made, examining the similarities and differences in the recognition of financial leases from both the lessor's and lessee's perspectives under VUK and BOBİ FRS. The study presents these differences and similarities in tabular form and includes a comparative analysis based on a sample application. One notable difference highlighted is the differing approaches lessees use to recognise tangible and intangible assets.

The study first includes a literature review, followed by a comparative analysis of the provisions related to financial leasing under VUK and BOBİ FRS. Subsequently, a sample financial lease transaction is recorded by both standards, allowing for a detailed comparison of accounting entries. In this analysis, the duration of the lease, the economic life of the asset, and the lease payments are considered to exemplify accounting treatments under each standard.

The findings indicate that VUK, being more tax-oriented, treats lease payments as rental expenses, and thus does not reflect the leased asset or liability on the balance sheet. In contrast, BOBİ FRS considers the right-of-use of the leased asset and requires the recognition of both the asset and the corresponding liability on the balance sheet. While this approach increases the company's debt ratio, it also makes off-balance-sheet obligations visible, thereby enhancing the transparency of financial statements. As a result, it is concluded that BOBİ FRS provides more meaningful and comparable information to users of financial statements.

Keywords: Financial leasing, VUK, BOBİ FRS, accounting standards, comparative analysis, case study.

198 This study carried out MA thesis, İstanbul Nişantaşı University

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THE USE OF NEW TECHNOLOGIES IN HEALTHCARE: A FIELD
STUDY ON THE EXAMPLE OF MHRS²⁰⁰

Saliha Nursaç YILDIZ²⁰¹, İlyas TURĞAY²⁰²

Abstract

Over time, the digital transformation in health technologies has introduced innovations that facilitate access to healthcare services and enhance the efficiency of health systems. In Türkiye, the Centralized Physician Appointment System (MHRS) stands out as a prominent example of this process. Designed to ensure equal and timely access to healthcare, this system has played a crucial role in the adoption of digital health applications. This study examines the factors influencing users' intentions to use the MHRS system within the frameworks of the Technology Acceptance Model (TAM), the Theory of Planned Behaviour (TPB), and the Theory of Relative Advantage (TRA).

The research was conducted with 500 MHRS users residing in Istanbul, and data were collected through an online survey. The questionnaire was designed to measure the constructs defined in the theoretical model, and the data were analyzed using the Partial Least Squares Structural Equation Modelling (PLS-SEM) method via SmartPLS 4 software. Statistical measures such as Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), the Fornell-Larcker criterion, and HTMT ratios were evaluated to assess the model's reliability and validity. The model demonstrated strong measurement validity and internal consistency.

The path analysis tested 12 direct and 14 indirect hypotheses. All direct hypotheses were supported, while 13 out of 14 indirect hypotheses were confirmed; only one was not found to be significant. Notably, perceived usefulness, ease of use, subjective norm, and attitude had statistically significant direct effects on the intention to use. In contrast, the direct effect of perceived behavioral control was limited, though its indirect effect through attitude was partially supported.

The findings indicate that the MHRS system is well adopted by users and used with positive intent. However, further efforts are recommended to improve user-friendliness, enhance accessibility, promote digital health literacy, and continue initiatives aimed at increasing user satisfaction. These results contribute to the development of policies and strategies that foster the societal acceptance of digital health technologies.

Keywords: MHRS, Technology Acceptance Model, Theory of Planned Behavior, Relative Advantage, Digital Health, PLS-SEM.

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AI-DRIVEN PORTFOLIO OPTIMIZATION: A REINFORCEMENT LEARNING APPROACH FOR DYNAMIC ASSET ALLOCATION IN BORSA ISTANBUL

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Abstract

The aim of this study is to enhance portfolio optimization by integrating a reinforcement learning (RL) framework, an artificial intelligence (AI) approach, employing the Proximal Policy Optimization (PPO) algorithm. The proposed model operates in a historical trading environment with the aim of dynamic asset allocations for BIST30 stocks for the period 2010-2025. The RL approach optimizes two objective functions of risk-adjusted returns and portfolio growth with a precisely designed reward function. The performance evaluation is done by comparing against three benchmarks-the BIST100 index, Markowitz mean-variance optimization, and an equal-weight portfolio-for the test period between 2022 and 2024. The findings show that the RL model achieves competitive risk-return trade-off success, measured by Sharpe ratios and portfolio values, compared to benchmark portfolios, with visualizations showcasing its adaptability to market conditions. Bridging two disciplines, financial theory and computational intelligence, introduces an AI-based approach to portfolio optimization. With the incorporation of dynamic optimization, the model overcomes limitations of traditional frameworks, showing adaptive decision-making in complex markets such as Borsa Istanbul. The potential of AI usage to advance financial modelling is shown in this study, and it sets the stage for future exploration of machine learning approaches in investment strategies. These insights lead to further research into AI-driven approaches for investment decision-making, and it fosters innovation at the intersection of finance, management, and technology.

Keywords: Portfolio Optimization, Reinforcement Learning (RL), Artificial Intelligence, Borsa Istanbul

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SUSTAINABILITY AND ENVIRONMENTAL DEGRADATION: A SYSTEM GMM ANALYSIS OF OECD COUNTRIES

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Abstract

One of the most important issues of the 21st century is the climate crisis. The growth policies implemented by countries, especially since the Industrial Revolution, by ignoring the environment have led to the emergence of environmental problems. With the increasing environmental problems, various conferences were held towards the end of the 20th century, and collective efforts began to be developed. Countries have abandoned growth models that do not consider environmental sustainability and have shifted towards more environmentally conscious and sustainable models. To achieve sustainable growth, it is of great importance to reduce environmental degradation. In this context, countries should invest in areas such as green finance, green technology, green energy, and green growth. According to these arguments, the study aims to examine the relationship between sustainability and environmental degradation. The research uses the System GMM approach to investigate the effects of trade factors, economic growth, green energy, green technology, and green finance on the ecological footprint for a subset of OECD countries over the 2014–2022 data period.

Keywords: Green Finance, Ecological Footprint, Green Growth, Green Technology, System GMM

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