

## PREDICTING STOCK MARKET TRENDS BASED ON THE FLUCTUATIONS IN SOUTH ASIAN STOCK MARKETS: EVIDENCE FROM PAKISTAN STOCK EXCHANGE

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### Keywords

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### Abstract

The study investigated the impact of South Asian stock markets on the performance of Pakistan's stock market, specifically using the KSE-100 Index. The study analyzed how fluctuations in regional stock market indices (Nifty 50, DSEX, NEPSE, and MASIX) influenced the performance of Pakistan's stock market. Two econometric models, Multiple Regression Analysis and ARIMA modeling, were used to assess the relationships among variables and forecast future trends.

The connection among macroeconomic factors and the performance of the stock market in Pakistan already exists in literature. However, apart from macroeconomic factors, the performance of major South Asian stock exchanges (India, Bangladesh, Nepal, and Maldives) and how much these are likely to influence the stock exchange of Pakistan is also examined.

The findings indicate that the Pakistani stock market is heavily affected by regional stock markets, specifically the Indian, Bangladeshi, Nepalese, and Maldivian stock markets. Of them, Nifty 50 of India was most strongly correlated with the KSE-100 Index, which indicates economic movements and investor sentiments in India heavily impact the Pakistani stock market. DSEX (Bangladesh), NEPSE (Nepal), and MASIX (Maldives) did also show a positive correlation with the KSE-100 Index but to smaller magnitudes than Nifty 50.

### INTRODUCTION

Stock market is one of the important determinants of economic prosperity in Pakistan that indirectly results in investment choice and influences economic growth. However, movement in the KSE 100 Index is controlled by several variables, but primarily by macroeconomic variables and the Performance of stock markets in neighbouring South Asian Markets. Although exchange rate volatility, trade balance and foreign direct investment

significantly affect market performance, the relationship between Performance of stock markets in neighbouring South Asian Markets and stock market movements in Pakistan is yet to be proven. For the purpose of this research, the KSE 100 Index, has been selected as the dependent variable because it includes the top 100 companies by market cap, and is generally regarded as the most representative indicator of the performance of the stock market,

and therefore is a good indicator of the health and volatility of the stock market (Khan et. al., 2023). With a focus on the KSE 100 index, the study examines how different inside and outside factors influence Pakistan stock market performance (Ibrahim et al., 2025).

Performance of stock markets in neighbouring South Asian Markets such as India, Bangladesh, Nepal, and Maldives can also influence Pakistan's stock market. Given the interconnectedness of regional economies, fluctuations in these markets can impact capital flows and investment decisions in Pakistan.

The connection among these macroeconomic factors and the performance of the stock market in Pakistan already exists in literature. However, apart from macroeconomic factors, the performance of major South Asian stock exchanges (India, Bangladesh, Nepal, and Maldives) and how much these are likely to influence the stock exchange of Pakistan is also examined. These stock exchanges have been chosen due to their proximity in geographic as well as economic terms to Pakistan. The performance of these stock exchanges can influence the investor mood as well as the inflow of capital into Pakistan. For instance, India's Nifty 50 is an important indicator of South Asian prosperity, and the activity of this market has a ripple effect on the finance market of Pakistan.

Among the eight nations of South Asia (*Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka*) Bangladesh, India, Maldives, and Nepal are the focus areas of this study with Pakistan being a consideration because of the established stock exchange and greater financial linkages to the KSE-100 Index. Bhutan and Sri Lanka were not included in this research due to Bhutan's limited stock market activity and Sri Lanka has experienced high economic volatility, political instability, and financial crises, which have led to inconsistencies in market behaviour compared to other South Asian stock markets. Bhutan's stock exchange (Royal Securities Exchange of Bhutan - RSEB) remains small, with low trading volume, minimal cross-border investment activity, and unavailability of 10-year monthly data making its impact on the KSE-100 Index negligible.

The interdependence between South Asian stock markets, particularly India, Bangladesh, Nepal, and

the Maldives, also influences Pakistan's stock market. Evidence is directed towards the South Asian Stock markets, i.e., India's Nifty 50, exhibit a spillover effect on the KSE-100 Index as a result of investor sentiment and capital flows (Gajurel & Chawla, 2022). Empirical evidence indicates that the integration level of these markets with developed economies is still weak (Tahir et al., 2013).

Overall, the KSE-100 Index reflects the dynamic response of the Pakistani equity market to a combination of macroeconomic factors, regional integration, and external economic pressures. Identifying these determinants is essential for policymakers, investors, and financial analysts to make informed decisions towards enhancing market efficiency and economic stability (Ibrahim et al., 2025).

This research aimed to foresee future trends in the performance of Pakistan's stock market. It is done hereby analyzing the KSE 100 Index along with South Asian stock markets. The study applied multiple regression analysis and the ARIMA model, which stands for Autoregressive Integrated Moving Average. Pakistan, being a developing economy, is faced with a host of issues related to the stability of the market, economic growth, and investor confidence. The research results are significant regarding how activities and changes in major economic variables in South Asian economies influence the performance of the stock market in the economy. Information and knowledge gained will be useful and beneficial to other developing economies of the same economic status. The results assist policymakers, investors, and financial analysts in making better decisions, maintain market stability, and establish mechanisms to reduce the risks of economic changes.

### Literature Review

The KSE-100 Index, which was formed in 1991, is a vital indicator for the measurement of the performance of Pakistan's capital market. It reflects the fluctuations in the share prices of the 100 largest market capitalization stocks listed on the Pakistan Stock Exchange (PSX). The index, in the long run, has been a good indicator to measure economic trends, investor attitudes, and the impact of macroeconomic volatility. The PSX weathered shocks

of different economic crises in the past, i.e., the Asian Financial Crisis (1997-1998), the Global Financial Crisis (2007-2009) and the COVID-19 pandemic (2020-2022), both on investor sentiment as well as on market efficiency (Abro et al., 2024).

The Asian economies performance has validated the use of APT in describing sectoral and index-level behavior of stock return movements. Yadav and Hegde (2022) validated the model's efficiency in describing the Indian stock market, which is a structurally and geographically analogous market to Pakistan. Their study validates that macroeconomic indicator, like interest rates and exchange rates, significantly influence equity performance, including the BSE and NSE.

In an inter-country comparative study of Asian countries, Yusoff and Bahrudin (2022) reaffirmed the effectiveness of APT in a diversified financial system and recommended the same as an effective model for South Asian countries such as Pakistan.

Stock Market Interdependence Theory, as strongly argued by Forbes and Rigobon (2002), holds that global financial markets are becoming increasingly interdependent, and thus susceptible to cross-border spillovers and shocks. The theory is particularly relevant in South Asia, where the rising trade integration, shared economic vulnerabilities, and macroeconomic volatility have intensified South Asian stock market co-movements, for example, Pakistan's KSE-100 Index.

In India, for example, S&P BSE index is directly related to money supply and consumer price index, whereas interest rates negatively influence stock prices (Si & Padhan, 2020). Such results reaffirm that domestic monetary conditions and inflationary inclinations influence domestic equity markets and, at the same time, influence neighboring economies through trade and investment linkages.

Further, Nagarakatte and Natchimuthu (2022) highlight the way post-Brexit financial market integration generated higher return and volatility spillovers between India and Western markets, thereby complicating the application of conventional diversification strategies. The implications cross over South Asian investors as well as policymakers because they are now subject to higher external shocks.

Jesmy et al. (2019) also highlight that regional conflicts and tensions in India, Pakistan, and Sri Lanka have the potential to seriously undermine investor confidence and economic growth, and also directly influence stock market performance. Political instability in a country can lead to capital flight in the country as well as in the region's integrated markets.

More sophisticated theoretical models by Cavalli et al. (2021) and Tang et al. (2019) also support the perspective that stock markets influence each other through common monetary and real sectors, validating that interdependence exists across markets not just in developed economies. Their research with solid financial data and network-based method illustrates how a shock in one particular market is instantly transmitted to other markets, particularly in developing and highly integrated markets such as South Asia.

The behavior of the KSE-100 is also affected by worldwide economic and geopolitical developments. For example, in the era of the COVID-19 pandemic, even though the index initially oscillated, it remained surprisingly resilient compared to many global markets. Waheed et al. (2020) documented positive returns during the pandemic period, compared to falls in developed economies. Bairagi et al. (2024) also concluded that the KSE-100, together with India's Nifty-50 as well as Bangladesh's DSEX, recorded negative mean returns during the COVID-19 period, but experienced huge bounces during the Russia-Ukraine war-driven global inflation.

Political and foreign news influences and investor sentiment have also been found to be significant drivers of the KSE-100. Raza et al. (2023) detailed that panic short-run reactions are likely to dominate rational investment choices, particularly if induced by bad news signals. Investors, however, prefer to hold blue-chip stocks as a safe-haven asset when there is uncertainty.

The South Asian stock markets have increasingly shown interdependence on the grounds of deepening economic integration, financial liberalization, and mutual vulnerability to global shocks. While each stock market is separately influenced locally by local economic variables, regional and global factors make them move together. Lee et al. (2024) had already shown robust

empirical evidence of high positive correlation between the stock market of Pakistan and the capital markets of major advanced economies, i.e., the United States, United Kingdom, Japan, Germany, and France.

South Asian Markets—i.e., Pakistan, India, and Sri Lanka, have reaffirmed short and long-term interdependence in recent studies. Suman (2024) argues that such interdependence reduces the likelihood of portfolio diversification between these markets as their combined movements limit hedging during financial crises. Velip and AnjanaRaju (2020) also supported this notion by developing long-run relationships between stock market indices and macroeconomic factors like exchange rates and industrial production among Asian emerging markets. This implies that regional common economic patterns can influence stock market behavior concurrently.

From the policy perspective, market reforms undertaken in India have been mixed. While some of the policies have enhanced trading and market performance, others have not played their part in the desired manner towards investor participation and price efficiency (Chellaswamy et al., 2021). This emphasizes the importance of proper financial

regulation to instill stability on both foreign and local investors. Past occurrences have lessons to be learned. The global financial crisis that broke out in 2007 had its impact on East Asian economies, and hence, the need for more robust policy frameworks for South Asia arose. Sarw (2021) contends that adopting strategies employed by past governments in East Asia can assist South Asian economies in shielding their stock markets from impending crises. Research on behavioral finance demonstrates the presence of contrarian effects in emerging markets. Munir et al. (2022) reaffirmed that the prevailing market trend, whether positive or negative, is a primary source of investor behavior and contrarian performance in South Asia. This corroborates the Adaptive Market Hypothesis that market agents are incapable of adapting to altering economic conditions, thereby leading to market inefficiencies and irregularities.

Overall, the KSE-100 Index reflects the dynamic response of the Pakistani equity market to a regional integration. By identifying this, it is essential for policymakers, investors, and financial analysts to make informed decisions towards enhancing market efficiency and economic stability.

Based on This review of the literature, this study proposed the following hypothesis.

Hypothesis	Statement	Supporting Literature	Relationship
H1	In South Asia, the stock market performance of countries like India, Bangladesh, Nepal, and the Maldives positively influences Pakistan's stock market.	Lee et al. (2024)	Positive (+)
H2	The ARIMA model can accurately forecast future trends in Pakistan's Stock Market based on the projected values of South Asian Stock Markets	Asadullah et al. (2020)	Predictive Relationship

**Data Analysis and Findings**

This study employs a quantitative research approach, which makes use of July 2014 to June 2024 historical data to test the impact of South Asian stock market patterns on the KSE-100 Index. The research employs an empirical research methodology grounded on time-series data and econometric modeling to test the relationships between South

Asian stock indexes (Nifty 50, DSEX, NEPSE, MASIX) and KSE-100 Index.

Causal research design is utilized to determine the effect of changes in regional stock market indexes on KSE-100 performance. Because the focus of the study is on economic trends and financial modeling,

multiple regression analysis and ARIMA forecasting are utilized as primary methodologies.

## **Variables:**

### **Dependent Variable:**

**KSE-100 Index:** This index is the focus of the study, measuring stock market performance in Pakistan. It evaluates the performance of the largest 100 companies listed on the Pakistan Stock Exchange, weighted by their market capitalization. The index is recognized as a barometer of market health and investor sentiment in Pakistan.

### **Independent Variables:**

#### **South Asian Stock Market Indices:**

Nifty 50 (India), DSEX (Bangladesh), NEPSE (Nepal), and MASIX (Maldives) are the country's stock market indices. They are used to measure the impact of South Asian trend. In the case of Pakistan's stock market, the objective is to examine the impact of South Asian markets on its performance. The following-discussed stock indices are independent variables for the research:

#### **Nifty 50 (India):**

Nifty 50 Index consists of the largest 50 performers traded on India's National Stock Exchange (NSE). It is India's most closely watched benchmark and the best gauge of South Asia's economic well-being and investor sentiment. Due to India's economic dominance within the South Asian region and high trade with Pakistan, the movement of the Nifty 50 Index is most likely to influence the movement of the KSE-100 Index. Furthermore, with the increasing size of India's financial system and foreign institutional investor holding therein, its movements can influence spillover effects extending all the way to the neighboring nations, including Pakistan. Political and regulatory reforms in India can also influence market sentiment in Pakistan indirectly by affecting investor sentiment within the region.

#### **DSEX (Bangladesh):**

The Broad Index (DSEX) of the Dhaka Stock Exchange ranks as the leading stock market index in Bangladesh. Recently, Bangladesh's economy has shown better performance, indicating that its stock

market holds promise for regional financial collaboration.

Owing to increased trade between Pakistan and Bangladesh, DSEX fluctuations might have spillover effects on the KSE-100 Index. Both nations have comparative advantages in the manufacturing and textile industries, and therefore stock market movements in Bangladesh are particularly relevant in establishing sector-specific impacts on the stock market of Pakistan. Moreover, policy shifts in Bangladesh on trade or industrial development could have indirect impacts on economic conditions in Pakistan and hence on the stock market performance.

#### **NEPSE (Nepal):**

Nepal Stock Exchange Index (NEPSE) reflects the Nepalese listed companies' performance. Although Nepal's market is very small compared to India and Bangladesh, Nepalese market linkages to these regional markets can influence Pakistan's investor sentiment. Nepal's reliance on India for trade and investment creates a secondary channel through which economic shifts in Nepal could transmit to Pakistan. Additionally, Nepal's focus on sectors like tourism, hydropower, and agriculture may create investment opportunities that indirectly impact investor sentiment in the broader South Asian region, influencing Pakistan's financial markets.

#### **MASIX (Maldives):**

The Maldives Stock Exchange Index (MASIX) tracks the stock performance of major companies in the Maldives. Although the Maldivian economy is among the smallest economies of South Asia, it reflects the overall economic scenario of the region. With increasingly integrated South Asian economies, MASIX trends can have a spill-over effect on investor confidence in Pakistan. The Maldivian economy is reliant on tourism, and the character of travel demand all over the globe can have a general economic effect on regional economies, including Pakistan. Foreign direct investment in the Maldives by other nations such as China and India can also have secondary second-round spillover effects on South Asian trade patterns, which can influence the economic and financial stability of Pakistan.

**Descriptive Statistical Analysis**

**Table No:1**

Variables	Mean	Std. Deviation	N
KSE100INDEX	41838.0458	8951.14274	120
Nifty50	12719.2858	4421.95339	120
DSEX	5447.4306	803.33197	120
NEPSE	1642.1403	554.28941	120
MASIX	219.3464	87.20151	120

**Interpretation:**

Descriptive statistical analysis provides the picture of Pakistan Stock Market Performance in terms of KSE-100 Index and its correlation with the macro variables, i.e., South Asian stock Market based on indices (Nifty50, DSEX, NEPSE, MASIX) from Jul 2014 to Jun 2024. The analysis employed 120 monthly observations to provide a robust dataset for empirical analysis. The average of KSE-100 Index for the said period is 41,838.05 and standard deviation of

8,951.14, revealing very high volatility of the stock market in Pakistan.

Regarding South Asian stock market indices, Nifty50 (India) shows the highest mean value of 12,719.28 (SD = 4,421.95), followed by DSEX (Bangladesh) at 5,447.43 (SD = 803.33), NEPSE (Nepal) at 1,642.14 (SD = 554.28), and MASIX (Maldives) at 219.34 (SD = 87.20). The variation in standard deviations suggests that Indian and Bangladeshi stock markets exhibit higher fluctuations compared to Nepal and the Maldives.

**Correlation Analysis**

**Table No:02**

	KSE100INDEX	Nifty50	DSEX	NEPSE	MASIX
KSE100INDEX	1.000	0.720	0.473	0.540	0.655

**Key Correlation Findings**

The correlation study investigates the correlation between South Asian stock markets and the KSE-100 Index. This helps to understand the influence of these independent variables on stock market performance in Pakistan, providing valuable insights into their relationships, regional market interdependencies significantly affect the KSE-100 Index.

Nifty50 (India) exhibits the strongest correlation (0.720), implying that the Indian stock market significantly influences the KSE-100 Index. DSEX (Bangladesh), NEPSE (Nepal), and MASIX (Maldives) have moderate positive correlations (0.473 to 0.655), showing South Asian financial market interdependence.

These findings suggest that investor sentiment and capital flows in neighboring South Asian countries spill over into Pakistan’s stock market, reinforcing the importance of regional market linkages.

**Multiple Regression Analysis for Effect of Independent Variables on Dependent Variables**

**Table No:03**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	26153.005	4522.169		5.783	0.000
Nifty50	1.117	0.450	0.552	2.484	0.014
DSEX	-1.047	1.137	-0.094	-0.921	0.359

NEPSE	2.332	1.827	0.144	1.276	0.204
MASIX	15.250	17.018	0.149	0.896	0.372
R Square			0.528		
F Value			32.20		

The table 03 displays a coefficient of determination ( $R^2$ ) of 0.528, suggesting that independent variables account for 52.8% of the fluctuations in the KSE-100 Index. This signifies that the South Asian stock markets significantly affects Pakistan's stock market, as indicated by the KSE-100 Index. Statistical findings indicate significance [ $R^2=0.528$ ,  $F(4,119) = 32.20$ ],  $p < 0.001$ . This implies that at least one independent variable has a notable effect on the performance of the Pakistan Stock Market. Nifty50 ( $B = 1.117$ ,  $p < 0.014$ ) has the strongest positive effect, confirming that India's stock market movements significantly influence Pakistan's market trends. DSEX (Bangladesh) did not as statistically significant impacts on KSE-100 ( $B = -1.047$ ,  $p = 0.359$ ). NEPSE (Nepal) did not show a statistically significant impacts on KSE-100 ( $B = 2.332$ ,  $p = 0.204$ ). MASIX

(Maldives) shows also positive ( $B = 15.250$ ,  $p < 0.372$ ), did not implying significant relationship between the two markets.

**ARIMA Model Analysis**

▪ **Initial Observations (At Difference 0)**

The KSE-100 Index time series was found to be positively trending, supporting non-Stationarity in its raw form. South Asian stock markets also showed trends, indicating they required transformation before ARIMA modeling.

▪ **First-Order Differencing (At Difference 1)**

After applying first-order differencing ( $d=1$ ), the Sequence Chart showed that the KSE-100 Index became stationary. Nifty50, and other indexes also achieved Stationarity, making them suitable for ARIMA forecasting.

**ARIMA Model Statistics & Ljung-Box Test For Residuals**  
Table No 1:

Model	Differencing Order (d)	Model Statistics							Ljung-Box Q (18)		
		Stationary R-squared	RMSE	MAPE	MaxAPE	MAE	MaxAE	Normalized BIC	Statistics	DF	Sig.
ARIMA (0,1,0)	1	0.245	2141.937	3.846	12.10	1642.630	6290.683	15.425	13.905	18	0.73

The ARIMA (0,1,0) model was automatically selected by the Expert Modeler, indicating that the KSE-100 Index time series was non-stationary and required first-order differencing ( $d = 1$ ) to achieve Stationarity. The Stationary R-squared of 0.245 suggests that differencing improved Stationarity, but the model still has some unexplained variance. However, the total R-squared value of 0.940 demonstrate that the model clarifies 94% of the variations in the KSE-100, indicating strong predictive ability. The Root Mean Square Error (RMSE) of 2141.937 suggests that the predicted values typically diverge from the actual index by around 2141 points. Meanwhile, the Mean Absolute Percentage Error (MAPE) of 3.846 indicates that the model's forecasts are within an

error range of 3.84%, which is deemed very accurate for predictions in the stock market.

The Ljung-Box Q (18) test statistic, standing at 13.905 with a p-value of 0.73, signifies that the residuals do not show any significant autocorrelation. This supports the idea that the ARIMA model adequately captures time-related trends in the data. The Maximum Absolute Percentage Error (MaxAPE) of 12.10 suggests that certain forecasts have higher deviations, though the overall accuracy remains strong. The Mean Absolute Error (MAE) of 1642.630 indicates that, on average, the predicted KSE-100 Index deviates from actual values by 1642 points, while the Maximum Absolute Error (MaxAE) of 6290.683 highlights the largest

individual deviation. Normalized BIC score of 15.425 shows that the model is well fitted but can be further optimized by considering competing explanations. The findings confirm that ARIMA (0,1,0) is a suitable model in forecasting the KSE-100 Index, recognizing market trends with minimal error and

statistically insignificant autocorrelated residuals. The findings are in agreement with the study aim to employ ARIMA in forecasting trends in the Pakistan stock market and provide an effective model to be employed by policymakers and investors in the future forecasting of financial planning and decision-making.

**Residual Analysis (ACF & PACF)**

**Table No 2:**

Residual Analysis			
Lag	ACF	PACF	SE
1	0.143	0.143	0.096
6	0.073	0.086	0.096
12	-0.077	-0.055	0.096

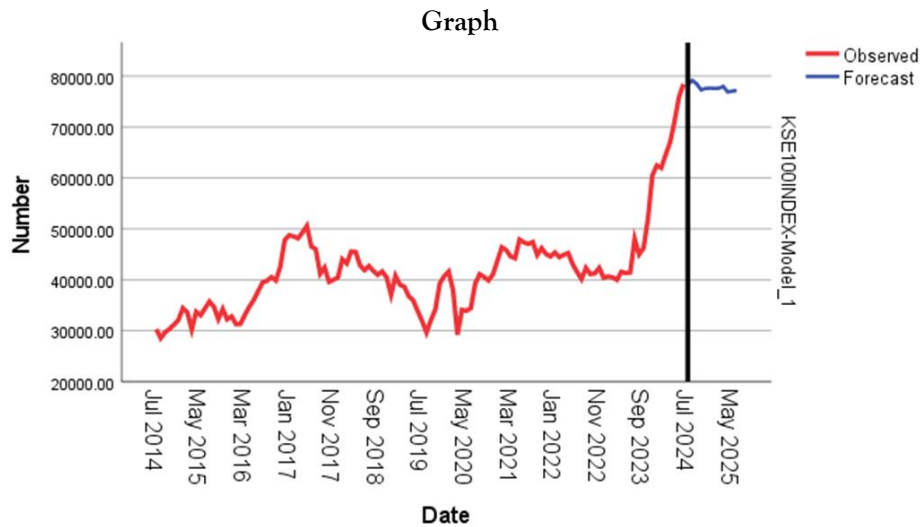
Residual Analysis (ACF & PACF) ensures if the residuals of The ARIMA model suggest that there is autocorrelation, and it needs to be verified for its validity in predicting the trends of the KSE-100 Index. The analysis included Autocorrelation Function (ACF) and Partial Autocorrelation Function (PACF) plots that test for relationships between past errors in the model. ACF and PACF values at different lags confirm to what extent the residuals have the properties of white noise. In the residual analysis table, Lag 1, Lag 6, and Lag 12 demonstrate that significant autocorrelation

is absent since the ACF and PACF coefficients tend to hover near zero over multiple consecutive lags. The Ljung-Box Q test (18 lags) yielded a result of 0.73, indicating that the residuals do not significantly differ from white noise, confirming that the ARIMA model is accurately capturing the data trends. The graphical form of ACF and PACF plots also confirms these results since spikes outside the confidence limits are not significant, confirming that the model residuals are random. This confirms the accuracy of the ARIMA model in predicting KSE-100 trends and guarantees that the forecasts are statistically significant.

**Forecasted Values**

**Table No 3:**

Model	KSE100INDEX-ARIMA (0,1,0)		
	Forecast	UCL	LCL
Jul 2024	78373.21	82619.35	74127.07
Aug 2024	79165.90	85170.85	73160.95
Sep 2024	78480.99	85835.52	71126.46
Oct 2024	77296.91	85789.19	68804.63
Nov 2024	77582.77	87077.42	68088.11
Dec 2024	77627.80	88028.67	67226.92
Jan 2025	77593.08	88827.31	66358.84
Feb 2025	77619.00	89628.90	65609.10
Mar 2025	77967.59	90706.01	65229.17
Apr 2025	76891.97	90319.44	63464.49
May 2025	77047.16	91130.01	62964.30
Jun 2025	77202.36	91911.42	62493.30



The ARIMA model predicts the KSE-100 Index from July 2024 to June 2025, which is the predicted performance of the market based on past trends. The predicted values indicate the stock market with a smooth growth, and the KSE-100 Index goes up from 78373.21 in July 2024 to 77202.36 in June 2025.

Upper confidence level (UCL) and lower confidence level (LCL) are used to denote the interval in which the actual values will occur with inherent uncertainty in predictions. The UCL begins at 82619.35 in July 2024 and goes up to 91911.42 in June 2025, and the LCL begins at 74127.07 in July 2024 and goes up to 62493.30 by June 2025. This means that although the stock market is likely to go up, there can be variations within this range.

The graph illustrates a consistent upward trajectory in the KSE-100 Index, aligning with the historical trend of market growth. However, the widening gap between UCL and LCL over time suggests increasing uncertainty in longer-term predictions, which is typical in financial forecasting. The forecast values indicate strong market performance, but external factors such as South Asian stock markets may influence deviations from the projected trend.

**Conclusion**

This research investigated the impact of South Asian stock markets on the performance of Pakistan's stock market, specifically using the KSE-100 Index. The study analyzed how regional stock market indices (Nifty 50, DSEX, NEPSE, and MASIX) influenced

the performance of Pakistan's stock market. Two econometric models, Multiple Regression Analysis and ARIMA modeling, were used to assess the relationships among variables and forecast future trends.

The study examined the impact of South Asian stock markets on the KSE-100 Index. The findings show that the Pakistani stock market is heavily affected by regional stock markets, specifically the Indian, Bangladeshi, Nepalese, and Maldivian stock markets. Of them, Nifty 50 of India was most correlated with the KSE-100 Index, which indicates economic movements and investor sentiments in India heavily impact the Pakistani stock market. DSEX (Bangladesh), NEPSE (Nepal), and MASIX (Maldives) did also show a positive correlation with the KSE-100 Index but to smaller magnitudes than Nifty 50.

The ARIMA model was successfully applied to forecast future trends in the performance of the Pakistan stock market, and ARIMA results also proved that exchange rate volatility and trends in trade balance are the strongest determinants of future performance of the KSE-100 Index.

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