MACRO-ECONOMIC ENVIRONMENT AND STOCK MARKET PERFORMANCE: EMPIRICAL EVIDENCE FROM THE SOUTH ASIAN REGION

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Abstract

This study set out to check if there is a consistent pattern between countries regarding macroeconomic issues' effect on South Asian stock markets. South Asian economies, in particular, have received less attention than other regions and economies, and much-existing research focuses on stock markets in industrialized nations. The eleven years of data beginning in 2010 and ending in 2020, are the basis for this analysis. This study used the Panel AR-Delta (ARDL) technique to check the connection between performance of stock market and macro-economic factors for four important countries in south Asian region: Bangladesh, Pakistan, India and Sri-Lanka. Using the unit root test, it can be seen that data is stationary across all levels. The relationship in both long and short-term among all variables has been explained using the Panel cointegration and Panel ARDL/PMG model. This study establishes a causal link between the SMP and the aforementioned ER, FDI, FATF, and MSCI SMC variables. The Granger causality test showed that all relationships were unidirectional. This study is a guiding tool for investors. Results regarding exchange rates and FDI will help market players make investment decisions. Policymakers can form fiscal and monetary policies according to the consequences related to FATF and FDI. Regarding academia, this research provides country-specific results; therefore study can be expanded by using latent and advanced econometric techniques.

Keywords: South Asia, Stock market Performance, Macroeconomic variables, ARDL, PMG, Granger Causality, FATF, MSCI Stock market classification.

1. Introduction

Expanding the capital market guarantees a more effective distribution of scarce resources. Investing entails weighing potential gains against losses to choose among available investments (Banerjee & Majumdar, 2018). The stock market facilitates the orderly distribution of capital and ownership among corporations and the general public. According to (Pradhan et al.2016) state that a flourishing economy necessitates a well-developed financial infrastructure, including a robust stock market and sound banking system. The ups and downs in performance of stock market (SMP) are a reliable indicator of economic health, reflecting cyclical nature of business cycles. The SMP is closely watched by national financial systems and thinks tanks to prepare for unexpected volatility (Demir, 2019). Investors' fortunes may be at risk if the stock

markets have an insufficient framework for curbing speculation. Specifically, non-American investors might unload their stock at a low price (Buckley, 2018).

This study analyzed the stock markets of Bangladesh, Pakistan, India and Sri-Lanka. Dhaka stock exchange (DSE) is one of two stock markets in Bangladesh, with a combined market valuation of more than $68 billion. India's primary stock market is the National Stock Exchange (NSE), which will have a total market value of US$3.4 trillion as of August 2021 and will be the world's tenth-largest stock exchange by this metric. Every major city in Pakistan, including Karachi, Lahore, and Islamabad, is home to a trading floor for the Pakistan Stock Exchange (PSX). The MSCI recently downgraded the PSX stock exchange from emerging market status to frontier market status. There are now 443 companies trading on the PSX, with a combined market valuation of around USD$52 billion. Sri Lanka's primary stock market is in Colombo (CSE), with a market capitalization of $10.33 billion.

According to a recent study by (Adesanmi, 2018), the stock markets have become the center of financial news due to a tremendous shift in the international capital markets over the last several decades. The stock markets of South-Asia have contributed significantly to global stock market's value in recent years. Markets are highly reactive to news and events from all over the world. As a result, most investors are constantly checking for information about potential policy shifts that may impact investment returns. To try and anticipate possible returns on investment depending on specific criteria, investors' primary concern is to establish the direction of the change in the performance of any stock market.

The stock markets of South Asia attracts both domestic and worldwide investors, although volatile compared to developed markets. Despite capital flight from developed to emerging markets and greater predicted returns, South Asian stock market determinants need additional analysis. Investors' main concern is SMP variation, which is tied to macroeconomic conditions.

The performance of South-Asian stock markets is thought to be influenced by various macro-economic indicators such as FDI, exchange rate, and other macro-economic factors. Moreover, in recent years, these factors have been clubbed with latent issues like frequent reclassifications of South Asian stock markets and country risk ratings by FATF for Asian economies. This concern relating to stock market performance due to macroeconomic factors had severe problems for investors and policymakers and required investigations into how these macro-economic factors are impacting the SMP in South Asia. Moreover, investors are more concerned about the clear insights regarding the country-specific impact of these factors on stock market performance. The impact of macro-economic factors like FDI, exchange rate, stock market classification, and FATF country ratings on the performance of South Asian stock markets is urgently needed.

This study covered these aspects, which are recent issues faced by the South Asian region. In this study, the impact of FATF ratings and MSCI stock market classification is observed, which will be helpful for investors to know more about the sensitivity of South Asian markets. This research is a guiding tool for potential domestic and foreign investors, policymakers, and academia. Investors can formulate approaches according to the findings relating to the effect of dynamic macro-economic factors impacting the SMP in South Asian countries. Economic policymakers can take insights into the impact of macro-economic variables on the performance stock market in South Asian while developing economic policies. Researchers can take benefit from this study to have information about South Asian stock markets' performance and extend the literature in the field of this kind of research. The upcoming study consists of the second chapter, "Theory and Literature," Chapter 3 details the research strategy and data collection. The analysis and results of this study are presented in Chapter 4. Chapter 5 concludes the document by discussing the conclusions, consequences, limitations, and potential future developments.

2. Theory and Literature

2.1 Theoretical Background

No satisfactory theory would confirm that the relationship between stock markets and the macro-economy is totally unidirectional. However, prices of stock are commonly known as responding to external forces. All economic factors are endogenous in some ultimate sense. Only natural forces, such as earthquakes, and the like, are truly exogenous to the world economy. However, to base an asset pricing model on these systematic physical factors is well beyond our current abilities. Our present objective is to model equity returns as functions of macro variables and nonequity asset returns. Hence this paper will take the stock market as endogenous relative to other markets. The Financial theory elaborates that the macro-economic factors can systematically change stock market performance: the spread between long and short interest rates, expected and unexpected inflation, industrial production, and the distance between high- and low-grade bonds. We find that these sources of risk are significantly priced. Furthermore, neither the market portfolio nor aggregate consumption is priced separately.

The arbitrage pricing theory (APT) explains that numerous other macroeconomic factors affect market performance and asset returns; this research will determine which factors will affect the SMP. This depicts the link between risk and returns in the asset pricing process. Although the term "efficient market" wasn't used until later, it was first popularised by economist Eugene F. Fama, who proposed that stock prices are essentially random f. First coined by (Roberts, 1967) to describe the transition from a less robust to a more potent form of market efficiency, the term "efficient market hypothesis" has since become common parlance (Malkiel, 1989). Depending on how efficient they are, weak markets, intermediate markets, and strong markets are all subgroups of one another.

2.2 Related Literature

Understanding how the economy affects the stock market is an increasingly fascinating study area. Recent research by (Baranidharan & Alex, 2020) into the SMP in small economies like Africa indicated that changes in the FE rate had a negligible impact on SMP. Ullah et al. (2017) studied that exchange rate variations significantly impacted SMP. (Yang, 2017) researched SMP in other Asian Pacific countries, including Singapore, South Korea etc.

It was found by researchers (Chang et al. 2019) that foreign direct investment (FDI) had a negligible impact on stock returns over the long term. Recent studies have found a positive correlation between SMP and FDI (Parab & Reddy, 2020). FDI has a positive relationship because it sends an excellent economic signal. Foreign direct investment (FDI) has a significant positive effect on economic growth in Malaysia, according to research by (Alzaidy et al. 2017). In addition, (Aurangzeb, 2012) analyses how various macroeconomic factors affect the stock market behavior in South Asian countries like India, Pakistanand Sri-Lanka. The stock exchanges of South Asia have likewise produced comparable outcomes.

The macroeconomic environment, political stability, legal property rights and processes, trade and settlement procedures, and their terms and conditions are only some of the many considerations MSCI makes. MSCI relies on investor feedback to decide whether a market should be categorized as developed, emerging, or frontier (Saidi et al. 2012). Open stock markets can be found in three outh Asian countries: Pakistan, India and Sri-Lanka. India and Pakistan are reflected as emerging economies by MSCI as of April 2018, whereas Sri Lanka is categorized as a frontier market. On the other hand, Pakistan has lately been demoted to the frontier market category in 2021, as indicated by the classification. Pakistan's stock market performance is likely affected by the country's recent downgrade, which warrants further investigation. The significance of MSCI Stock Market Classifications was eloquently explained by Wang and (Guo, 2020).

They also noted that China's stock market was recently named an emerging stock market, indicating the country has made significant progress toward internationalizing its capital market.

The FATF is an international organization preventing the financing of terrorism, money laundering, and the production of mass destruction weapons through the worldwide financial system. There are now two countries on the blocklist (North Korea and Iran) and nineteen on the greylist (Albania, Barbados, Burkina Faso, Cayman Islands, Cambodia, Cayman Islands, Morocco, Myanmar, Pakistan, Senegal, Yemen, and the like). According to the scant research on the topic, grey-listing has no effect or just a slight impact on capital inflows in any country.

Since the process is ongoing and the FATF's standards are continuously being revised, even countries that aren't currently on the grey list could end up in the future (Kida & Paetzold, 2021). The effect of grey listing on a country's Capital flow significantly. The scope of the damage is tremendous. Pakistan has been reprieved through Feb 2020 by the FATF action plan. Stocks on the Pakistan Stock Exchange may drop if the country's economy suffers due to Pakistan's exclusion from the grey list (Hussain, 2019). According to a study conducted by (Arif & Suleman, 2017) on the Pakistani market, the increased interconnectedness of global capital markets has led to rapid spillover or contagion effects, especially in response to negative news. Gray listing of any economy results in a reduced influx of capital, as stated by (Kida & Paetzold, 2021). The effect of being delisted on capital flows can be even more devastating.

3. Data and Methodology

3.1 Sample selection

The primary objective of this study is to investigate the impact of macroeconomic factors, including Foreign Exchange Rate, Foreign Direct Investment (FDI), MSCI Stock Market Classification, and FATF Ratings on the SMP of South Asian stock markets. This study is taking 11 years monthly data, starting from Jan 2010 to Dec 2020. Data is obtained relating to stock returns from the securities exchanges of South-Asian countries, comprising of Bangladesh, Pakistan, India, and Sri-Lanka.

3.2 Variables and Sources of Data

Data of variables used in this research of all related countries are obtained from various authentic web sources, including the stock exchanges of respective countries and the IMF database. On time to time basis, the stock market classification is classified by MSCI (Morgan Stanley Capital International) for respective countries, comprising of Bangladesh, Pakistan, India and Sri- Lanka. The stock market classification has been taken through a dummy variable (There are four market classifications as classified by the MSCI, 1 = developed, 2 = Emerging market, 3 = Frontier market, 4 = Standalone market). The Basel AML Index is an annual independent classification that values Terrorist financing and money laundering (ML/TF) concerns world-wide. Scale of country risk rating is 1 to 10, where one is for the least risky country, and 10 is the riskiest country. A recent study exploring the causality and dynamic link among the exchange rate and SMP (Mroua & Trabelsi, 2020) has taken ten years of data aligned with this study's data length selection. Sample countries chosen in this study are based on the volume of the Stock market activities and availability of the data for all factors being discussed in the study. Data regarding the Stock market and other variables are taken for Bangladesh, Pakistan , India and Sri-Lanka. The SMP, i.e., dependent variable, is measured by stock returns of respective stock markets, similarly in line with studies conducted by (Alam, 2020) and (Salhin et al. 2016). Data sources are the World Bank, MSCI website, FATF Website, Pakistan Stock Exchange, and International Financial Statistics database for International Monetary Fund (IMF).

3.3 Variable Formation

Table 1: Variable Formulation

Dependent Variable	**Proxy**	**Reference**
Stock Market Performance	The SMP is measured by stock returns of respective country's stock exchange.	(Parab & Reddy, 2020), (Larsson & Haq, 2016)
Independent Variables	**Proxy**	**Reference**
Foreign Exchange Rate	National currency per US dollar values is be used.	(Yang, 2017), (Ahmad & Ramzan, 2016)
Foreign Direct Investment (FDI)	Amount of foreign direct investment of respective country in US Dollars ($).	(Parab & Reddy, 2020), (Nguyen, 2016)
MSCI Market Classification	Through stock market classification provided by MSCI for the respective country.	(Das & Manoharan, 2019), (Burnham et al. 2018), (Akel & Torun, 2017)
FATF Ratings	AML/TF country ratings is used for analysis purpose.	(Kida & Paetzold, 2021), (Balakina et al. 2017), (Mukhtar, 2018)

3.4 Econometric Estimation and Model

We used the Panel auto regressive distributed lag (ARDL) model to fulfill the study's objectives. A panel ARDL is used to examine the impact of one factor on another. Panel ARDL helps determine the short-run and long-term impact of any time series independent variable (IV) over the dependent variable (DV). The functional model of this research is as follows;

SMP = f (ER, FDI, MSCI, FATF) -------- **(i)**

SMP represents the stock market performance of the respective stock market of the South Asia. Exchange Rate is denoted by ER, Foreign Direct Investment is represented by FDI, MSCI is the stock Market Classification, and FATF is country Ratings. The implicit function given in the Equation above might be written in an explicit, econometric formulas below:

$$SMP_{it} = \beta_0 + \beta_1 EXR_{it} + \beta_2 FDI_{it} + \beta_3 MSCI_{it} + \beta_4 FATF_{it} + \varepsilon_{it}$$ -------- (ii)

Where β_0 represents a constant term or intercept and the ε_tRepresents the error term, stochastic disturbance term or residual term. The parameters from $\beta_1 \, to \, \beta_4$ are the slope coefficients of independent variables/potential determinants presented above.

4. Results and Analysis

4.1 Descriptive Statistics

Table 2: Summary Statistics

Statistic Name	SMP	MSCI	FDI ($M)	FATF	ER
Mean	10,645.640	2.697	11,500,000,000.000	6.217	98.548
Median	4,510.935	3.000	1,960,000,000.000	6.338	84.755
Maximum	50,591.570	4.000	64,400,000,000.000	7.160	190.000
Minimum	1,282.590	2.000	434,000,000.000	5.150	44.200
Std. Dev.	12,583.990	0.507	18,100,000,000.000	0.452	35.904
Observations	528.000	528.000	528.000	528.000	528.000

4.2 Correlation Analysis

To check the multi-collinearity in the data, correlation analysis has been performed, with results as tabulated below;

Table 3 CORRELATION MATRIX

		SMP	MSCI	FDI	FATF	ER
SMP	Pearson Correlation	1				
	Sig. (2-tailed)					
MSCI	Pearson Correlation	-.457**	1			
	Sig. (2-tailed)	.000				
FDI	Pearson Correlation	.224**	-.794**	1		
	Sig. (2-tailed)	.000	.000			
FATF	Pearson Correlation	0.011*	.588**	-.762**	1	
	Sig. (2-tailed)	.043	.000	.000		
ER	Pearson Correlation	.088*	.405**	-.740**	.655**	1
	Sig. (2-tailed)	.042	.000	.000	.000	

*. Correlation is Significant at the 0.05 level (2-tailed).
**. Correlation is Significant at the 0.01 level (2-tailed).

4.3 Panel Unit Root Test

First column in Table-4 shows the variable names. The second column shows ADF statistics, third column shows the corresponding probability value, and the third column includes the decision regarding the stationarity or non-stationarity of the series. The results show that FDI is Stationaryat Level (0) with an ADF - Statistics value of -3.071. All other variables, including SMP, MSCI, FATF, and ER, are stationary (1) at first Difference significant at 5% critical value.

Table 4: PANEL UNIT ROOT TEST RESULT

VARIABLE	At Level			1st Difference		
	ADF Statistics	P-Value	Decision	ADF Statistics	P-Value	Decision
SMP	13.433	0.098	Non-Stationary	264.111	0.000	Stationary
MSCI	0.342	0.843	Non-Stationary	75.262	0.000	Stationary
FATF	4.537	0.806	Non-Stationary	23.825	0.003	Stationary
FDI	-3.071	0.001	Stationary	0.274	0.608	Non-Stationary
ER	4.680	0.791	Non-Stationary	139.562	0.000	Stationary

4.4 Panel Cointegration Test

Results of the Kao Residual co-integration test reveal that the t-Statistic value for ADF is -2.805 with a probability value of 0.0025, which is Significant at 5% (Table 5). Since the value is less than 0.05, thus rejecting the null hypothesis of no cointegration and concludes that there is a long-term long-run relationship for the SMP and our selected macro-economic variables, including Exchange Rate, Foreign Direct Investment, MSCI Stock Market Classification, and FATF Ratings.

Table 5: KAO RESIDUAL CO-INTEGRATION TEST

Test	t-Statistic	Prob.
ADF	-2.805	0.002
Residual variance	0.001	
HAC variance	0.001	

(Null Hypothesis: No cointegration)

4.5 ARDL: Long Run Results

Long-term coefficient estimates reveal that FDI benefits SMP over the long term (Table - 06). This indicates that more foreign direct investment will result in higher gross domestic product. The SMP will rise by 30% if FDI grows by 100%. Notably, FDI t-statistics reveal that the variable is significant at the 5% significance level, with a probability (P) value of less than 0.05 (p-value 0.05). The statistical findings concludes that

the FDI has a favorable and significant effect on SMP in each country. The outcome is backed up by the research of (Saeed Meo, 2017), (Tsagkanos et al. 2019), and others (Ho, 2018).

Exchange rate results indicate a good correlation with the S&P 500. This suggests that in the case of south Asian countries, rising ER will result in rising SMP. More precisely, a 1% rise in ER will result in a 0.82 percentage point rise in regional SMP. T-statistics = 3.58, which is significant at the 1% level of significance because the P value is less than 0.01 (p-value 0.01), and these results are consistent with those of other studies by (Barakat et al. 2016) (Pervaiz et al. 2018), and others (Bagh et al. 2017).

Similarly, a - 0.17 coefficient for FATF ratings, a t-value of -4.600, and a P value of 0.000 all indicate that FATF ratings substantially impact SMP at the 5% significance level. This reflects that an increase of one (01) unit in FATF ratings will decrease 0.17 units in SMP. Since an increase in FATF ratings is a bad omen for any economy, the confidence of investors and foreign institutions will be shaken, resulting in a decrease in capital inflow that will harm the economy's performance (the country ranked at 1 is the lowest risk and 10 is the highest value of risk for any country).

Table 6: LONG RUN FORM

Panel - A : Common Effects	**Variables**	**Coefficient**	**Std. Error**	**t-statistic**	**p-value**
South Asian Panel	FDI	0.30	0.08	3.79	0.00
	FATF	-0.17	0.04	-4.60	0.00
	ER	0.82	0.23	3.58	0.00

4.6 ARDL: Short Run Results

The PMG/ARDL test results show that FDI has a vital role in SMP during the short- and long-term. Parameter estimates for FDI are 0.83 with a P-Value of 0.02. Given this, it follows that FDI boosts SMP significantly if the level of relevance is considered (0.05). Surprisingly, the P-values for FATF and ER are 0.48 and 0.74, respectively, indicating that they are insignificant statistically in the short run. It is evident, however, that both variables significantly affect the SMP over the long run. Given that these variables, particularly FATF ratings, have a lagging impact on the SMP of the various nations, we cannot dismiss our theory only based on short-term results. Additionally, Table 7 demonstrates that MSCI stock market classification has a moderate beneficial impact on SMP in the short run (0.010 coefficient value, 0.05 P-value at the 5% threshold of significance).

Table 7: SHORT RUN RESULTS

Panel - A : Common Effects	**Variables**	**Coefficient**	**Std. Error**	**t-statistic**	**p-value**
South Asian Panel					
	FDI	0.83	0.36	2.28	0.02
	FATF	-0.24	0.33	-0.70	0.48
	ER	-0.30	0.89	-0.33	0.74
	MSCI	0.01	0.00	1.95	0.05
	COINTEQ01	-0.09	0.03	-3.56	0.00

4.7 ARDL Country-Specific Results

The impact of Sri Lanka's FATF rating is positive yet negligible, according to ARDL results that are tailored to the country. Foreign direct investment and the MSCI emerging markets all have a beneficial effect on SMP. However, ER has a profoundly harmful impact on SMP. Specifically for Bangladesh, MSCI SMC has a substantial and notably good effect on SMP. However, the significant standard error for the three variables means that their short-term effects are negligible.

Substantial evidence is that FDI from FATF and MSCI is improving India's SMP. When compared to the outcomes in Sri Lanka, the impact of ER is negative and significant for the Indian stock market. Since both countries' economies are bank-based and share comparable demographics and political situations, the pattern of results for Pakistan in this context is strikingly similar to that of India.

The Pakistani stock market has significantly benefited from foreign direct investment, the Financial Action Task Force, and the MSCI index. However, ER has had a significant detrimental effect on SMP in Pakistan. The findings of this ER agree with those of a similar study done in the Pakistani context (Alam, 2020).

Table 8: ARDL COUNTRY SPECIFIC RESULTS

Panel-A: Individual Effects	**Variables**	**Coefficient**	**Std. Error**	**t-statistic**	**p-value**
SRILANKA	FDI	1.57	0.40	3.92	0.03
	FATF	-0.20	0.07	-2.66	0.08
	ER	-1.28	0.15	-8.71	0.00
	MSCI	0.01	0.00	57.46	0.00
	COINTEQ01	-0.11	0.00	-62.98	0.00
BANGADESH	FDI	0.27	1.50	0.18	0.87
	FATF	-0.58	0.49	-1.17	0.33
	ER	2.37	1.23	1.93	0.15
	MSCI	0.00	0.00	-11.05	0.00
	COINTEQ01	-0.13	0.00	-82.83	0.00
INDIA	FDI	1.07	0.24	4.47	0.02
	FATF	0.77	0.05	15.59	0.00
	ER	-1.37	0.02	-59.51	0.00
	MSCI	0.01	0.00	19.09	0.00
	COINTEQ01	-0.11	0.00	-78.77	0.00
PAKISTAN	FDI	0.54	0.17	3.27	0.05
	FATF	0.52	0.13	3.99	0.03
	ER	-0.92	0.06	-14.97	0.00
	MSCI	0.01	0.00	823.38	0.00
	COINTEQ01	-0.02	0.00	-189.22	0.00

4.8 Granger Causality Test

Table 09 shows the results; it has been evident that accepting the null hypothesis of MSCI, FDI, FATF, and ER does not Granger causality SMP due to the P value being more significant than 0.05 and suggests a unidirectional causality among all the variables including MSCI, FDI, FATF, ER, and SMP.

Table 9: PAIR-WISE GRANGER CAUSALITY TEST

Null Hypothesis	**Obs.**	**F-Statistic**	**Prob.**
MSCI does not Granger Cause SE		0.299	0.826
SE does not Granger Cause MSCI	516	1.438	0.231
FDI does not Granger Cause SE	516	1.661	0.174
SE does not Granger Cause FDI		1.422	0.236
FATF does not Granger Cause SE		1.261	0.287
SE does not Granger Cause FATF	516	0.093	0.964
ER does not Granger Cause SE		0.206	0.892
SE does not Granger Cause ER	516	0.869	0.457

4.9 Discussion of Results

Since selected countries are developing, and stock markets are less developed. Therefore, direct investment in these countries positively impacts the investors' minds. Also, our analysis shows that an increase in FDI significantly increases the SMP of these South Asian countries as a whole and on a country-specific basis. We can conclude that more foreign direct investment will improve SM. Similar finds were concluded by (Tsagkanos et al. 2019) studied macro-economic factors of stock market growth. The research concluded that FDI positively correlates with the SM. According to the Exchange Rate results, the SM does better when ER is higher. Hence, it is concluded that the SMP in South Asia is improved when there is a higher ER. Our study findings showed a strongly positive correlated between FATF and the stock markets of middle MENA countries. This means that an increase in the FATF country risk rating negatively affects investors, reducing capital inflow to South Asian countries. A recent study (Kida & Paetzold, 2021) on capital inflows found that a country's FATF grey listing/emerging country risk rating substantially and negatively affects capital inflows. Since the economies of South Asia have also been grey/blacklisted in the past few years, restricted capital inflow and movement of funds from the world's controlling economies

have been recorded. Therefore, these countries must improve FATF ratings to improve the stock market performance. The MSCI index has a moderately positive effect and considerably affects the S&P 500. Investors in these emerging countries likely care little about the stock market's label.

5. Conclusion, Implications, Limitations, and Future Directions

5.1 Conclusion

This model's output confirms both the short and long-term link for all South Asian nations. In addition, the study's findings indicate that some macroeconomic parameters might be used as predictors of SMP in South-Asian countries. As a result, investors have a higher degree of leeway within a framework of variables characteristic of the macro economy upon which to base their investment policies. Capital inflow and movement of funds have been restricted by global financial controlling agencies due to South Asian economies being on the watch list of FATF and being grey/black listed in recent years. The financial control and tracking system in South Asian economies must also be improved by implementing KYC (Know your customer) and related advanced characteristics. To increase the volume of transactions in SM, it is also possible to enhance the forward connection of stock markets with global stock markets and banks. It may be necessary to emphasize making these economies business-friendly so that domestic and international investors can easily invest and interact.

5.2 Implications

Given that each South Asian economy functions in its distinct macroeconomic context, it is clear that the effects of macro-economic factors on stock markets vary widely throughout the region's countries. Accordingly, the research will be helpful to both domestic and foreign investors as they plan their portfolio investment strategies to optimize their returns across many markets. Finally, while creating economic policy, these countries' governments must consider underlying factors such as country risk ratings and stock market classifications. In addition, the SMP can be enhanced through digitalization, enhanced connectivity, and more accurate financial monitoring if adequate steps and initiatives are taken. Implications of this study are for policymakers, investors, and academia. Policymakers will have clear information regarding the impact of currency fluctuation on the SMP. Moreover, it has been evident that the country risk rating score of any country has a direct and significant impact on the economy as well as the SMP. Therefore, policies should be established accordingly.

5.3 Limitations and Future Research

Initially, the study was planned for the entire South Asian region markets. Still, it was limited to 04 countries due to non - the availability of complete data for 03 countries Bhutan, Maldives, and Nepal, since these markets are small stock markets/not well-established markets, and data for all variables is not available. Due to limited time, this research work could further be expanded as a comparative study by comparing South Asian Stocks markets with developed stock markets of Europe/America. A comparative study can be done in the future by comparing South Asian Stock markets with developed US/UK/Europe stock markets.

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