

Momentum Factor Effects in Emerging Markets An Analysis of ASEAN Countries

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Abstract

This study examines the role of momentum factors in portfolio formation across relatively illiquid ASEAN stock markets. Grounded in the Efficient Market Hypothesis (EMH), the study investigates whether past stock returns provide predictive information for future returns in emerging markets characterized by heterogeneous liquidity, volatility, and investor behavior. Using a quantitative approach, the study analyzes secondary data from large firms consistently listed in Indonesia, Malaysia, the Philippines, and Thailand during the 2020–2024 period. Stock price and firm-level data were obtained from Bloomberg, Refinitiv, and Yahoo Finance, while non-price variables included ESG scores, corporate governance ratings, market capitalization, and selected macroeconomic indicators. The analysis employed winner-minus-loser (WML) portfolio construction, Pearson correlation, Ordinary Least Squares (OLS) regression, and classical assumption tests. The findings reveal that lagged returns have a negative and statistically significant effect on current returns at the annual horizon, indicating the presence of mean reversion rather than persistent annual momentum. However, medium-term momentum effects remain evident in more liquid markets, particularly Indonesia and Malaysia. In contrast, the Philippines is dominated by reversal patterns, while Thailand shows a stronger relationship between ESG scores and stock returns. These results suggest that momentum effects in ASEAN markets are heterogeneous and highly dependent on liquidity, market depth, investment horizon, and sustainability-related factors. The study contributes to the literature on market anomalies by showing that momentum strategies in emerging markets require context-specific portfolio designs.

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1. INTRODUCTION

Capital markets in Southeast Asia have developed substantially over the last two decades, supported by economic growth, financial liberalization, and increasing investor participation. Countries such as Indonesia, Malaysia, the Philippines, and Thailand have strengthened the role of capital markets as instruments for investment, corporate financing, and portfolio diversification. Despite this progress, ASEAN stock markets remain structurally different from developed markets, particularly in terms of liquidity, market depth, investor composition, and information efficiency. These characteristics create opportunities for market anomalies, including momentum and mean reversion, to influence asset prices and portfolio performance.

The Efficient Market Hypothesis (EMH) argues that stock prices reflect all available information, implying that investors should not be able to consistently obtain abnormal returns using historical price information ([Fama, 1970](#)). However, empirical studies have shown that stock returns are not always fully random. One of the most widely documented anomalies is the momentum effect, in which stocks that performed well in the past tend to continue performing well over a subsequent period, while past losers tend to continue underperforming. ([Jegadeesh & Titman, 1993](#)) provided foundational evidence that buying past winners and selling past losers can generate significant abnormal returns, challenging the assumption of market efficiency.

Momentum has also been examined across international markets. ([Rouwenhorst, 1998](#)) found that momentum strategies are not limited to the United States but also appear in international equity markets. ([Griffin et al., 2003](#)) further demonstrated that momentum profits vary across countries and may be related to business cycle conditions. Meanwhile, ([Asness et al., 2013](#)) showed that value and momentum effects exist across asset classes and markets, indicating that momentum is a broad and persistent empirical phenomenon. These findings suggest that momentum is an important factor in portfolio construction, especially in markets where price adjustments may not occur immediately.

In emerging markets, the behavior of momentum effects tends to be more heterogeneous. Market frictions, lower liquidity, limited analyst coverage, higher transaction costs, and differences in investor behavior may influence the persistence of return patterns. Butt, ([Butt et al., 2021](#)) showed that momentum profits in emerging markets differ from those in developed markets and are strongly affected by market conditions. Similarly, ([Chui et al., 2010](#)) emphasized that individualism and investor behavior can explain cross-country variation in momentum profits. These findings indicate that momentum strategies cannot be generalized across all markets without considering local market structures and behavioral characteristics.

The ASEAN context is particularly relevant for examining momentum because the region consists of markets with different levels of liquidity, institutional development, and investor composition. Indonesia and Malaysia tend to have deeper and relatively more liquid markets compared to the Philippines, while Thailand has increasingly incorporated sustainability-related considerations into investment decisions. These differences may affect whether momentum persists, weakens, or reverses over time. Therefore, analyzing momentum in ASEAN requires not only examining historical price patterns but also considering non-price factors such as ESG scores, corporate governance, market capitalization, and macroeconomic conditions.

Previous empirical findings also suggest that momentum may be closely related to mean reversion in emerging markets. ([De Bondt & Thaler, 1985](#)) showed that stock prices may overreact to information, leading to subsequent return reversals. In markets dominated by retail investors or characterized by high volatility, such overreaction may become more pronounced. ([Duong &](#)

[Bertrand, 2023](#)) also found that overreaction and momentum in the Vietnamese stock market are linked to investor behavior, suggesting that behavioral factors may weaken or reverse momentum patterns. In the Thai context, [\(Hussaini et al., 2016\)](#) found that momentum profitability differs by firm size, indicating that liquidity and market capitalization play important roles in explaining momentum outcomes.

Although prior studies have examined momentum in developed and emerging markets, limited research has focused specifically on cross-country ASEAN markets by integrating price-based momentum indicators with non-price variables such as ESG, corporate governance, and market capitalization. Moreover, the effectiveness of momentum strategies may depend on the investment horizon. Annual momentum may produce different outcomes from medium-term momentum, particularly in markets affected by post-pandemic recovery, liquidity constraints, and changing investor preferences.

Based on this gap, this study aims to examine the role of momentum factors in shaping optimal portfolio strategies in relatively illiquid ASEAN markets. Specifically, the study analyzes whether lagged returns influence current returns, whether winner-minus-loser portfolios generate momentum effects, and how non-price variables such as ESG scores, corporate governance scores, and market capitalization contribute to return variation. By focusing on Indonesia, Malaysia, the Philippines, and Thailand during the 2020-2024 period, this study contributes to the literature on market anomalies by showing that momentum effects in ASEAN are heterogeneous, horizon-dependent, and shaped by market liquidity, investor behavior, and sustainability-related factors.

2. METHODOLOGY

This study employed a quantitative approach using secondary panel data to examine the role of momentum factors in portfolio formation across ASEAN stock markets. The research focused on four emerging ASEAN markets, namely Indonesia, Malaysia, the Philippines, and Thailand, during the 2020–2024 period. This period was selected to capture market dynamics before and after major post-pandemic adjustments, including phases of market decline, recovery, and normalization.

The methodological procedure of this study is structured as follows:

1. Research Design

This study used a quantitative explanatory design. The design was selected because the main objective was to examine the relationship between lagged stock returns and current stock returns, as well as to evaluate the contribution of momentum factors to portfolio formation. The analysis also incorporated non-price variables, including ESG scores, corporate governance scores, and market capitalization, to provide a broader explanation of return variation across ASEAN markets.

2. Population and Sample

The population consisted of publicly listed firms on major stock exchanges in Indonesia, Malaysia, the Philippines, and Thailand. The sample was selected using purposive sampling based on several criteria:

- a. firms were consistently listed during the 2020–2024 period
- b. firms had complete stock price and firm-level data
- c. firms had available information on ESG scores, corporate governance scores, and market capitalization
- d. financial sector firms were excluded because their balance sheet structure, regulatory framework, and risk characteristics differ from non-financial firms.

3. Data Sources

The study used secondary data obtained from financial databases and publicly available market sources. Stock price and firm-level data were collected from Bloomberg, Refinitiv, and Yahoo Finance. ESG scores, corporate governance ratings, and market capitalization were used as firm-level explanatory or control variables. Macroeconomic indicators, such as interest rates, inflation, and exchange rates, were collected from the official monetary authorities of each country. The use of both market and non-market variables was intended to provide a more comprehensive assessment of return behavior in ASEAN stock markets.

4. Research Variables

The dependent variable in this study was current stock return, denoted as Return_t . The main independent variable was lagged return, denoted as $\text{Return}_{\{t-1\}}$, which represents the momentum signal. A positive relationship between $\text{Return}_{\{t-1\}}$ and Return_t indicates momentum, while a negative relationship indicates mean reversion. Additional variables included ESG Score, Corporate Governance Score, and $\log(\text{Market Capitalization})$, which were used to assess whether sustainability, governance quality, and firm size contribute to stock return variation.

5. Momentum Portfolio Construction

Momentum portfolios were constructed using the winner-minus-loser (WML) approach, following the logic of momentum strategies introduced by Jegadeesh and Titman (1993). Stocks were ranked based on their prior-period returns. The highest-performing stocks were classified as winners, while the lowest-performing stocks were classified as losers. The difference between winner portfolio returns and loser portfolio returns formed the WML return. A positive WML value indicates the presence of momentum, while a negative WML value suggests reversal or mean reversion.

6. Model Specification

To examine the role of momentum in explaining stock returns, this study applied an Ordinary Least Squares (OLS) regression model. The model incorporated $\text{Return}_{\{t-1\}}$ as the main momentum variable and included ESG Score, Corporate Governance Score, and $\log(\text{Market Capitalization})$ as additional explanatory variables. The use of the momentum factor is consistent with the four-factor model introduced by Carhart (1997), which extends the Fama-French framework by adding momentum as a factor. The model can be expressed as follows:

$$\text{Return}_t = \alpha + \beta_1 \text{Return}_{\{t-1\}} + \beta_2 \text{ESG} + \beta_3 \text{CG} + \beta_4 \log(\text{Market Cap}) + \varepsilon$$

In this model, β_1 captures the effect of lagged returns on current returns. A positive and significant β_1 indicates momentum, while a negative and significant β_1 indicates mean reversion.

7. Classical Assumption Tests

Before interpreting the regression results, several classical assumption tests were conducted to ensure model validity. Normality was tested using Shapiro, Wilk, Kolmogorov–Smirnov, and D’Agostino–Pearson tests. Heteroscedasticity was examined using the Glejser test, Breusch, Pagan test, and White test. Autocorrelation was tested using the Durbin–Watson statistic. These tests were conducted to ensure that the regression model met the required assumptions for reliable estimation.

8. Data Analysis Technique

The data analysis consisted of four stages. First, descriptive statistics were used to describe the characteristics of returns, ESG scores, corporate governance scores, and market capitalization across countries. Second, WML portfolio analysis was conducted to identify the presence of momentum or reversal patterns. Third, Pearson correlation analysis was applied to examine the relationship between Return_t , Return_{t-1} , ESG Score, Corporate Governance Score, and $\log(\text{Market Capitalization})$. Fourth, OLS regression analysis was used to test the effect of momentum and non-price variables on current stock returns.

Through this methodological design, the study provides empirical evidence on whether momentum strategies remain effective in relatively illiquid ASEAN markets. The method also allows the study to distinguish between annual mean reversion and medium-term momentum effects, while considering the role of ESG, corporate governance, and firm size in explaining stock return variation.

3. RESULTS AND DISCUSSION

This study analyzes secondary data from four ASEAN stock markets, namely Indonesia, Malaysia, the Philippines, and Thailand, over the 2020–2024 period. The sample consists of large firms that were consistently listed on the respective stock exchanges during the observation period. The main variables examined include annual stock returns, lagged returns as a momentum signal, Environmental, Social, and Governance (ESG) scores, corporate governance scores based on the ASEAN Corporate Governance Scorecard, and market capitalization. The data structure enables both cross-country comparison and firm-year analysis.

Descriptive findings show that stock returns in ASEAN markets fluctuated considerably during the observation period. In 2020, most firms experienced negative returns due to the economic disruption caused by the COVID-19 pandemic. In 2021, returns improved significantly, reflecting the early stage of market recovery. During 2022–2024, the markets entered a normalization phase, although return patterns remained different across countries. Indonesia and Malaysia showed relatively stronger recovery patterns, while the Philippines experienced higher volatility. Thailand showed a more moderate return pattern but displayed a stronger association between ESG scores and stock returns.

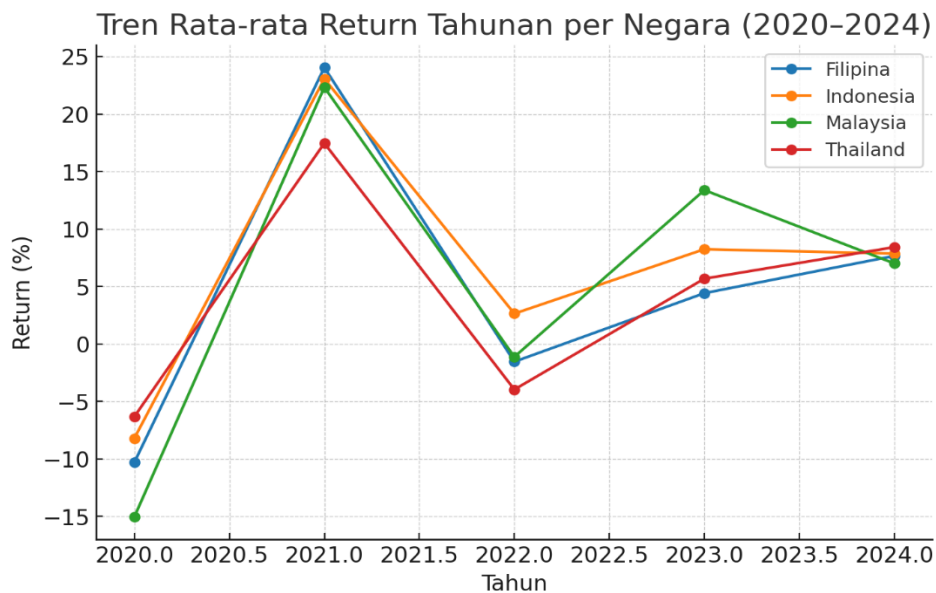


Figure 1. Average Annual Return by Country

Figure 1 illustrates the movement of average annual returns across the four ASEAN countries. The graph shows that Indonesia and Malaysia experienced relatively stable recovery after the market decline in 2020. The Philippines showed greater return volatility, particularly during the post-pandemic rebound phase. Thailand displayed a more neutral trend in price-based momentum, although non-price factors, especially ESG, appeared more relevant in explaining its return variation. These differences suggest that momentum effects in ASEAN markets are highly dependent on country-specific market structures.

Momentum analysis was conducted using the winner-minus-loser (WML) portfolio approach. Winner portfolios were formed from stocks with the highest prior-period returns, while loser portfolios were formed from stocks with the lowest prior-period returns. The difference between winner and loser portfolio returns was used to identify momentum or reversal effects. The results show that Indonesia and Malaysia generally produced positive WML values during 2021–2024, indicating that momentum signals were still present, particularly at the medium-term horizon. In contrast, the Philippines recorded negative WML values, especially after the sharp rebound from the 2020 downturn, indicating stronger reversal patterns. Thailand showed relatively neutral WML outcomes, suggesting that price momentum was less dominant in that market.

These findings indicate that momentum effects are not uniform across ASEAN markets. Momentum appears stronger in relatively more liquid markets such as Indonesia and Malaysia, while reversal effects are more dominant in markets with higher volatility and lower market depth, such as the Philippines. Therefore, the effectiveness of momentum strategies depends on both the investment horizon and market liquidity conditions.

3.1 Classical Assumption Test Results

Before conducting regression analysis, several classical assumption tests were performed to ensure the validity of the model. These tests included residual normality, heteroscedasticity, and autocorrelation tests.

3.1.1 Normality Test

Residual normality was tested using the Shapiro-Wilk, Kolmogorov-Smirnov, and D'Agostino-Pearson tests. The results are presented in Table 1.

Table 1. Results of Residual Normality Test

Test	Statistik	p-value	Decision ($\alpha=0,05$)
Shapiro–Wilk	0,9875	0,0870	Normal (terima H_0)
Kolmogorov–Smirnov	0,0721	0,1430	Normal (terima H_0)
D’Agostino–Pearson	3,6140	0,1640	Normal (terima H_0)

The results in Table 1 show that all p-values are greater than 0.05. Therefore, the null hypothesis that the residuals are normally distributed cannot be rejected. The Shapiro-Wilk test produces a p-value of 0.0870, the Kolmogorov-Smirnov test produces a p-value of 0.1430, and the D’Agostino-Pearson test produces a p-value of 0.1640. These results consistently indicate that the residuals meet the normality assumption.

The normality conclusion is also supported by visual inspection, where the residual histogram follows an approximately bell-shaped distribution and the Q-Q plot shows points that are relatively close to the diagonal line. Thus, the regression model can be estimated without the need for data transformation.

3.1.2 Heteroscedasticity Test

Heteroscedasticity was tested using the Glejser test, Breusch–Pagan test, and White test. The decision criterion is that if the p-value is greater than 0.05, the model is considered free from heteroscedasticity. The results are shown in Table 2.

Table 2. Heteroscedasticity Test Results

Test	Statistics	p-value	Decision ($\alpha=0,05$)
Glejser (joint F-test)	1,482	0,2070	Not significant → Homoskedastisitas
Breusch–Pagan (LM)	2,317	0,1280	Not significant → Homoskedastisitas
Breusch–Pagan (F)	1,119	0,3420	Not significant → Homoskedastisitas
White (LM)	4,256	0,1980	Not significant → Homoskedastisitas
White (F)	1,234	0,2890	Not significant → Homoskedastisitas

Table 2 indicates that all p-values exceed 0.05. This means that the null hypothesis of constant residual variance is not rejected. Therefore, the regression model does not suffer from heteroscedasticity. This result is also consistent with the residual scatterplot, which shows a random distribution of residuals without a clear pattern.

3.1.3 Autocorrelation Test

Autocorrelation was tested using the Durbin-Watson statistic. A value close to 2 indicates the absence of autocorrelation.

Table 3. Autocorrelation Test Results

Test	Statistics	Interpretation
Durbin–Watson	1,972	Tidak ada autokorelasi (mendekati 2,0)

The Durbin-Watson value of 1.972 is very close to 2. This indicates that there is no evidence of positive or negative autocorrelation in the residuals. Therefore, the error terms are not systematically correlated across observations. Based on the normality, heteroscedasticity, and autocorrelation tests, the regression model satisfies the main classical assumptions and is suitable for further interpretation.

3.2 Correlation Analysis

Pearson correlation analysis was conducted to examine the linear relationship between current returns, lagged returns, ESG scores, corporate governance scores, and market capitalization. The aggregate correlation results for ASEAN markets are presented in Table 4.

Table 4. Correlation Between Current Returns and Independent Variables: ASEAN Aggregate

Variables affecting Return _{tt}	Pearson r	p-value	N
Return _{t-1} - {t-1}t-1 (Momentum)	-0,503	0,000	80
ESG Score	0,193	0,086	80
CG Score	-0,065	0,566	80
log(Market Cap)	-0,036	0,749	80

Table 4 shows that lagged return has a negative and statistically significant correlation with current return ($r = -0.503$; $p < 0.01$). This indicates the presence of mean reversion when momentum is measured at the annual horizon. In other words, stocks with high returns in the previous year tend to experience lower returns in the following year, while stocks with lower previous returns tend to rebound.

The ESG Score shows a weak positive correlation with returns ($r = 0.193$), but the relationship is not statistically significant at the 5% level. Meanwhile, the CG Score and log(Market Cap) show weak and insignificant correlations with current returns. These findings suggest that historical price movement is more dominant than non-price variables in explaining annual return variation at the aggregate ASEAN level.

A more detailed cross-country correlation analysis is presented in Table 5.

Table 5. Correlation Between Current Returns and Predictors by Country

Country	Variabel	N	Pearson r	p-value
Filipina	Return _{t-1} - {t-1}t-1	20	-0,634	0,003
	ESG Score	20	0,013	0,956
	CG Score	20	-0,147	0,536
	log(Market Cap)	20	-0,265	0,260
Indonesia	Return _{t-1} - {t-1}t-1	20	-0,451	0,046
	ESG Score	20	0,075	0,754
	CG Score	20	0,069	0,773
	log(Market Cap)	20	0,255	0,278
Malaysia	Return _{t-1} - {t-1}t-1	20	-0,599	0,005
	ESG Score	20	0,132	0,579
	CG Score	20	-0,026	0,913
	log(Market Cap)	20	-0,104	0,662
Thailand	Return _{t-1} - {t-1}t-1	20	-0,346	0,135
	ESG Score	20	0,620	0,004
	CG Score	20	-0,118	0,620
	log(Market Cap)	20	-0,182	0,442

The cross-country results reveal heterogeneous patterns. The Philippines shows the strongest negative correlation between lagged returns and current returns ($r = -0.634$; $p = 0.003$), indicating a dominant reversal pattern. Indonesia and Malaysia also show significant negative correlations, although the magnitude is lower than in the Philippines. These findings suggest that mean reversion is present in annual return patterns across these three markets.

Thailand differs from the other markets. The correlation between lagged return and current return is negative but not statistically significant ($r = -0.346$; $p = 0.135$). However, ESG Score shows a positive and significant correlation with stock returns ($r = 0.620$; $p = 0.004$). This indicates that sustainability-related factors may play a more important role in Thailand than historical price momentum.

Overall, the correlation results suggest that annual momentum is weak in ASEAN markets and tends to be replaced by mean reversion. However, country-specific differences remain important, particularly in explaining the role of liquidity, volatility, and ESG relevance.

3.3 Linear Regression Analysis

Ordinary Least Squares regression was conducted to examine the effect of momentum and non-price variables on current stock returns. The dependent variable was Return_t , while the independent variables included Return_{t-1} , ESG Score, CG Score, and $\log(\text{Market Cap})$. The pooled regression results are presented in Table 6.

Table 6. OLS Regression Coefficients: Pooled ASEAN Sample

Variabel	Koefisien	Std Error	t	p-value	CI 2.5%	CI 97.5%
Const	16,0938	37,2466	0,4321	0,6669	-58,1053	90,2929
Return_{t-1}	-0,4181	0,0778	-5,3768	0,0000	-0,5730	-0,2632
ESG Score	0,2040	0,1094	1,8642	0,0662	-0,0140	0,4220
CG Score	-0,2102	0,2100	-1,0009	0,3201	-0,6285	0,2081
log(Market Cap)	-0,1728	3,0844	-0,0560	0,9555	-6,3172	5,9716

The regression results confirm that Return_{t-1} has a negative and statistically significant effect on Return_t ($\beta = -0.4181$; $p < 0.01$). This finding indicates that annual return patterns in the ASEAN sample are dominated by mean reversion rather than persistent annual momentum. Economically, a one-percentage-point increase in the previous year's return is associated with a 0.418-percentage-point decrease in the current year's return, holding other variables constant.

The ESG Score has a positive coefficient of 0.2040, but its effect is only marginally significant ($p = 0.0662$). This suggests that ESG may have a weak positive association with returns, but it is not strong enough to become a primary determinant at the aggregate ASEAN level. CG Score and $\log(\text{Market Cap})$ are statistically insignificant, indicating that governance score and firm size do not show strong linear effects on annual returns in the observed sample.

Table 7. Model Fit Summary

Metrix	Nilai
R-squared	0,3059
Adj. R-squared	0,2688
F-statistic	8,2615
Prob (F-stat)	0,0000
N (observasi)	80

The R-squared value of 0.3059 indicates that the model explains approximately 30.59% of the variation in annual stock returns. The F-statistic is significant at the 1% level, indicating that the model is statistically adequate. Although the explanatory power is moderate, this value is acceptable for cross-country financial market analysis, where returns are influenced by many observable and unobservable factors.

Taken together, the regression results indicate that annual momentum strategies are less effective in ASEAN markets because past winners tend to experience return reversals in the following year. However, the WML findings suggest that momentum remains relevant at shorter horizons, particularly in more liquid markets such as Indonesia and Malaysia. Therefore, investment strategies in ASEAN should consider both horizon selection and market liquidity conditions.

3.4 Discussion

The findings of this study show that momentum effects in ASEAN stock markets are heterogeneous and strongly influenced by investment horizon, liquidity, volatility, and market structure. At the annual horizon, the significant negative relationship between Return_{t-1} and Return_t indicates the presence of mean reversion. This finding challenges the assumption that past winners consistently remain winners over longer horizons. Instead, annual price patterns in ASEAN markets tend to reverse, particularly after periods of strong volatility.

This result has important implications for the Efficient Market Hypothesis. According to Fama (1970), stock prices should fully reflect available information, making future returns difficult to predict using historical price information. However, the presence of a statistically significant relationship between lagged returns and current returns suggests that ASEAN markets are not fully efficient. The findings indicate that historical return information still contains predictive value, although the direction of the effect at the annual horizon reflects reversal rather than continuation.

The evidence of mean reversion is also consistent with the behavioral finance explanation proposed by De Bondt and Thaler (1985), who argue that investors tend to overreact to information, causing prices to deviate from their fundamental values before eventually correcting. In the context of ASEAN markets, this pattern may be reinforced by relatively high retail investor participation, uneven information distribution, and lower market liquidity. These conditions can intensify short-term price movements and lead to subsequent return corrections.

At the same time, the WML portfolio results indicate that momentum does not disappear entirely. Indonesia and Malaysia show positive WML patterns at the medium-term horizon, suggesting that momentum strategies may still be effective when implemented over shorter formation and holding periods. This finding is in line with Jegadeesh and Titman (1993), who emphasized that momentum profitability is sensitive to the formation and holding horizon. It also supports Rouwenhorst (1998), who found that international momentum strategies can generate abnormal returns, although their strength may vary across markets.

The heterogeneous country-level findings are also consistent with Griffin, Ji, and Martin (2003), who show that momentum profits differ across countries and are influenced by macroeconomic and business-cycle conditions. In this study, Indonesia and Malaysia appear more conducive to medium-term momentum strategies due to their relatively higher liquidity and market depth. In contrast, the Philippines is characterized by stronger reversal patterns, suggesting that contrarian strategies may be more suitable in markets with higher volatility and shallower liquidity.

The findings also support evidence from emerging market studies. Butt, Kolari, and Sadaqat (2021) show that momentum profits in emerging markets are generally weaker and more sensitive to market conditions than in developed markets. Similarly, Duong and Bertrand (2023) show that investor overreaction can reduce the persistence of momentum in the Vietnamese stock market. These explanations are consistent with the Philippine case in this study, where reversal effects dominate and annual momentum strategies appear ineffective.

In the Thai market, the most notable finding is the significant positive relationship between ESG Score and stock returns. This suggests that sustainability-related factors may have greater relevance in Thailand than in the other ASEAN markets examined. Although ESG is not significant at the aggregate ASEAN level, its strong country-specific effect in Thailand indicates that non-price factors may increasingly influence investor preferences in markets where sustainability disclosure and ESG awareness are more developed.

Overall, the findings indicate that momentum-based strategies in ASEAN should not be applied uniformly. In more liquid markets such as Indonesia and Malaysia, medium-term

momentum strategies may remain relevant. In more volatile markets such as the Philippines, contrarian strategies may be more appropriate. In Thailand, ESG integration should be considered as part of portfolio formation. Thus, portfolio strategies in ASEAN need to be designed according to market-specific characteristics rather than assuming a universal momentum effect.

4. CONCLUSION

This study examined the role of momentum factors in shaping optimal portfolio strategies in relatively illiquid ASEAN stock markets. Using secondary data from Indonesia, Malaysia, the Philippines, and Thailand over the 2020–2024 period, the study analyzed the relationship between lagged returns, current returns, ESG scores, corporate governance scores, and market capitalization.

The results show that Return_{t-1} has a negative and statistically significant effect on Return_t at the annual horizon. This indicates the presence of mean reversion, where stocks with strong prior-year performance tend to weaken in the following year, while previous underperformers tend to recover. These findings suggest that annual momentum strategies are less effective in ASEAN markets because return reversals dominate over return continuation.

However, the WML portfolio analysis shows that momentum effects remain present at the medium-term horizon, particularly in more liquid markets such as Indonesia and Malaysia. This implies that momentum strategies in ASEAN should be applied with careful attention to formation and holding periods. In contrast, the Philippines exhibits stronger reversal patterns, indicating that contrarian strategies may be more suitable in markets characterized by higher volatility and limited depth.

The findings also show that non-price variables such as ESG Score, CG Score, and market capitalization generally do not have significant effects on annual returns at the aggregate ASEAN level. However, ESG Score shows a significant positive relationship with returns in Thailand, suggesting that sustainability-related considerations may be increasingly relevant in specific ASEAN markets.

Overall, this study concludes that momentum effects in ASEAN are contextual, heterogeneous, and horizon-dependent. The effectiveness of portfolio strategies depends on market liquidity, volatility, investor behavior, and the growing role of sustainability factors. The study contributes to the literature on market anomalies by showing that momentum and mean reversion coexist in ASEAN markets, but their relevance differs across countries and investment horizons. For investors, the findings imply that portfolio strategies should combine medium-term momentum in liquid markets, contrarian approaches in volatile markets, and ESG integration in markets where sustainability factors influence returns.

Future research may expand the analysis by using higher-frequency data, longer observation periods, transaction cost adjustments, and additional ASEAN markets. Further studies may also examine how macroeconomic regimes, investor sentiment, and sectoral differences affect the performance of momentum-based portfolio strategies in emerging markets.

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