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Market Anomalies and Investor Behavior: The January Effect in ASEAN Countries

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Abstract

Research Originality: This study provides a fresh contribution to the literature on market anomalies, specifically the January Effect, within ASEAN capital markets.

Research Objectives: The objective of this research is to investigate the presence and extent of the January Effect by analyzing stock returns and abnormal returns of publicly listed companies in ASEAN capital markets.

Research Methods: Data were obtained through purposive sampling, resulting in a final sample of 153 companies. The research hypotheses were tested using paired sample t-tests.

Empirical Results: The findings indicate that the January Effect is evident in certain capital market indices within ASEAN but is not consistently observed across all markets. The presence of higher stock returns and abnormal returns in January does not conclusively confirm the January Effect in every instance.

Implications: Investors are advised to exercise caution and not rely solely on seasonal anomalies, a comprehensive approach that includes broader market fundamentals and macroeconomic indicators is essential for sound decision-making within ASEAN capital markets.

Keywords:

January effect; Stock return; Abnormal return; Capital market; Efficient Market Hypothesis

How to Cite:

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INTRODUCTION

Capital markets play a vital role in the economic development of a country. Various metrics and correlations are used to evaluate and test capital market dynamics, such as capital market performance (Acha & Akpan, 2019; Bello et al., 2022), Gross Domestic Product (GDP) (Alam & Hussein, 2019), and sukuk performance (Sari et al., 2018; Tan & Shafi, 2021), among other indicators. The primary goal of measuring economic growth through capital markets often centers on raising investment capital. Short-term capital is typically obtained through money market instruments, while long-term funding is secured through the issuance of shares and bonds. Capital markets offer an alternative source of funding, particularly for high-risk ventures that are underserved by traditional banks (Algaeed, 2021). Entrepreneurs can leverage these markets to access additional capital and expand their business networks (Cumming et al., 2021).

Predicting capital market movements is notoriously difficult (Paramita & Mohanty, 2019), prompting analysts and investors to study market behavior for more accurate forecasting. A key measure of market efficiency is how quickly and accurately prices adjust to new information. In an efficient capital market, security prices fully reflect all relevant information (Marisetty & Madasu, 2021), ensuring fair valuation at any given time. Two important concepts in this field are the Efficient Market Hypothesis (EMH) and Post-Announcement Drift. EMH is a cornerstone of modern financial theory, proposing that stock prices always incorporate available information when markets are informationally efficient (Kim et al., 2019). This assumption underpins many long-term investment strategies used by financial institutions, investors, and regulators (Vochozka et al., 2020).

Post-Announcement Drift, on the other hand, describes the phenomenon where stock prices continue to move in the direction of significant announcements, even after the information becomes public. In a truly efficient market, stock prices would follow a random walk pattern, determined solely by future information. Under these conditions, the opportunity to earn abnormal returns would be negligible (Asnawi et al., 2020). In reality, however, markets often fail to digest information quickly or completely, resulting in irregular price movements and abnormal returns (Anshari et al., 2020). Investors frequently exploit these inefficiencies, as seen in the Indian capital market and historically in the U.S. capital market during the 1900s (Plastun & Plastun, 2018), as well as more recent studies of the NYSE and LSE in 2012 (Tkalcevic & Schimiedecke, 2019) and the Oslo Stock Exchange between 1980 and 2019 (Tørmoen & Vigdel, 2021). These observations challenge the EMH, with market anomalies, such as the January Effect, serving as key counterexamples.

Abnormal returns, which deviate from expected investment outcomes, are frequently linked to such anomalies. One of the most recognized is the January Effect, where stock prices tend to rise in January and, in some instances, decline in December (Guo, 2022). This anomaly evolved from earlier effects, such as the weekend effect, day-of-the-week effect, holiday effect, and thirteenth-day effect, many of which have since lost

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relevance. Although the January Effect has been widely researched, questions remain about its consistency, underlying causes, and impact across sectors. Scholars have proposed various explanations. Arendas et al. (2021) outlined several potential causes: (1) tax-loss selling—investors sell underperforming stocks at year-end to offset tax liabilities; (2) window dressing—portfolio managers sell poor-performing stocks to enhance end-of-year reporting; (3) small-stock beta, many firms release financial reports in January, influencing investor sentiment; and (4) a predictive pattern where strong January returns signal continued performance for the remainder of the year.

Emerging markets, particularly in Southeast Asia, show signs that such anomalies may persist due to unique market structures and investor behaviors. While several studies have explored the January Effect in Indonesia, findings vary. For example, Kusuma et al. (2021) observed that stock returns influence the January Effect in LQ-45 companies, a conclusion also supported by Avdalović & Milenković (2017) in Balkan equity markets, and by Maxhuni (2022) and Plastun (2018), who found similar results. However, other studies have refuted these findings, arguing that stock returns do not significantly impact or reflect the January Effect. Dewi & Santosa (2019) studied firms listed on the Indonesia Stock Exchange (IDX), while Ghallabi et al. (2024), Andrianto & Mirza (2016), and Enow (2024) examined various indexes, including the Islamic index, Nikkei 225, JSE, CAC 40, DAX, and NASDAQ. Similarly, Garay Alvarado & Demmler (2019), Kiprono (2018), and Tkalcevic & Schimiedecke (2019) examined the Mexican Stock Market Index and major global exchanges, finding no evidence of the January Effect in those contexts.

Abnormal returns, frequently associated with market anomalies, have also drawn conflicting interpretations. Some research supports their influence on the January Effect. For instance, Rahmadan et al. (2023) analyzed technology firms on the IDX, while Azzahra & Putri (2023) examined LQ-45 index companies, both concluding that abnormal returns impact the January Effect. In contrast, Dewi & Santosa (2019), focusing on IDX30 firms, and Ansori & Wiagustini (2018), studying the JII index, found no significant relationship between abnormal returns and the January Effect.

This research is distinct in its regional scope, analyzing capital markets across Southeast Asia collectively rather than in isolation. This approach provides comparative insights into how the January Effect manifests in different yet economically and culturally connected markets. The regional focus is critical, given Southeast Asia's increasing economic influence and diverse market conditions. These conditions offer a rich context for testing whether anomalies like the January Effect are globally consistent or vary by market structure and investor behavior (Eduah et al., 2024). This analysis contributes to the broader theoretical debate on the EMH and market anomalies, while also delivering practical insights for investors, analysts, and policymakers navigating emerging markets.

The main objective of this study is to examine the existence and consistency of the January Effect across Southeast Asian capital markets by comparing stock returns and abnormal returns in January versus other months. This research contributes in three key ways: first, by filling a gap in regional anomaly research within emerging markets;

second, by expanding the understanding of whether market anomalies are universal or context-specific; and third, by providing empirical evidence that can guide investment strategies and inform regulatory frameworks across Southeast Asia.

METHODS

This study adopts a quantitative comparative approach to analyze differences in stock returns and abnormal returns among companies listed on selected ASEAN capital market indices. The research focuses on six major indices in Southeast Asia: FBMKLCI (Malaysia), LQ45 (Indonesia), PSEi (Philippines), SET50 (Thailand), STI (Singapore), and HNX30 (Vietnam), covering the period from 2020 to 2022. These indices were selected to reflect a blend of developed and emerging markets within the ASEAN region, thereby enabling a meaningful cross-country comparison.

The sampling method used is purposive sampling, with the following inclusion criteria: (1) companies must have been consistently listed in their respective index throughout the 2020–2022 period; (2) they must have complete and accessible stock price data and reporting information for the duration of the study; and (3) they must not have engaged in extraordinary corporate actions—such as mergers, stock splits, acquisitions, or delisting, that could materially distort stock price movements during the observation period. Based on these criteria, a total of 153 companies were selected. After the removal of outliers to ensure data integrity and robustness, the final dataset comprised 432 stock return observations and 444 abnormal return observations.

The study utilizes secondary data obtained from reliable financial sources, including the official websites of stock exchanges—Bursa Malaysia, Indonesia Stock Exchange (IDX), Philippine Stock Exchange (PSE), Stock Exchange of Thailand (SET), Singapore Exchange (SGX), and Hanoi Stock Exchange (HNX)—as well as global financial platforms such as Investing.com and Yahoo Finance. Stock returns are calculated using the daily closing price method, defined as the percentage change in price between two consecutive trading days. Abnormal returns are computed using the Market Model, which estimates expected returns based on a stock's historical relationship with the relevant market index. Abnormal return is defined as the difference between the actual return and the expected return on a given trading day, isolating the portion of the return not explained by general market movements.

The analysis is conducted using SPSS version 26. The primary statistical test employed is the Paired Sample t-Test, used to compare mean stock returns and abnormal returns between January (Group 1) and the rest of the year (February to December, Group 2). Prior to hypothesis testing, the dataset is assessed for normality using the Kolmogorov–Smirnov test and evaluated for other key statistical assumptions, including homogeneity of variances, to ensure the validity of the results. The outcomes of this analysis are interpreted to determine whether statistically significant differences exist between January and non-January periods, thereby testing the presence and extent of the January Effect in the selected ASEAN markets.

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RESULT AND DISCUSSION

This study begins with an analysis of descriptive statistics to examine the characteristics of stock return and abnormal return data across six ASEAN stock indices, FBMKLCI (Malaysia), LQ45 (Indonesia), PSEi (Philippines), SET50 (Thailand), STI (Singapore), and HNX30 (Vietnam)—for the period 2020 to 2022. As shown in Table 1, the results reveal significant variability in returns, particularly during January, aligning with the commonly observed "January Effect" anomaly. For instance, the LQ45 index recorded a minimum return of -0.214 in January 2020 and a maximum return of 0.085 in January 2022. Similarly, the PSEi index reported the highest January return at 0.189 in 2022, while the SET50 index posted the lowest January return at -0.254 in 2020.

On average, January returns are either lower or more volatile than returns during the rest of the year. Notably, in January 2020, all indices except HNX showed negative average returns, reflecting a broad market downturn likely driven by the uncertainty surrounding the onset of the COVID-19 pandemic. In contrast, non-January returns generally display more stable and positive average values, suggesting reduced volatility outside the January period. For example, the FBMKLCI index had a mean January return of -0.043 in 2020, compared to a non-January mean return of 0.002. Similar patterns are evident in the LQ45 and PSEi indices.

Table 1. Descriptive Stock Return Statistics

		2020			2021			2022		
Month	**N**	**Min**	**Max**	**Mean**	**Min**	**Max**	**Mean**	**Min**	**Max**	**Mean**
FBM January	24	-0.158	0.042	-0.043	-0.132	0.017	-0.067	-0.128	0.050	-0.037
FBM Non-january	24	-0.015	0.021	0.002	-0.018	0.035	0.008	-0.013	0.033	0.005
LQ January	25	-0.214	0.023	-0.072	-0.187	0.078	-0.078	-0.095	0.085	0.003
LQ Non-january	25	-0.021	0.053	0.011	-0.044	0.068	0.006	-0.033	0.063	0.010
PSE January	23	-0.203	0.011	-0.088	-0.158	0.059	-0.069	-0.064	0.189	0.047
PSE Non-january	23	-0.024	0.039	0.011	-0.013	0.058	0.013	-0.041	0.010	-0.007
SET January	31	-0.254	0.181	-0.025	-0.112	0.124	0.005	-0.123	0.114	0.007
SET Non-january	31	-0.031	0.032	-0.005	-0.018	0.039	0.010	-0.031	0.040	0.004
STI January	24	-0.152	0.061	-0.033	-0.104	0.115	0.010	-0.111	0.140	0.014
STI Non-january	24	-0.046	0.022	-0.003	-0.035	0.034	0.001	-0.024	0.039	0.005
HNX January	17	-0.172	0.136	-0.034	-0.216	0.460	0.009	-0.286	0.462	-0.090
HNX Non-january	17	0.002	0.159	0.061	0.024	0.303	0.105	-0.113	0.025	-0.045

Source: Data processed

Table 1 presents the descriptive statistics of stock returns for various indices across ASEAN markets during the 2020–2022 period. For the FBMKLCI index, the minimum return was -0.158 in 2020, recorded by PETRONAS Chemicals Group Bhd (5183),

while the maximum return was 0.050 in 2022, recorded by Hong Leong Financial Group (1082). In the LQ45 index, the lowest return was -0.214 in 2020, posted by Perusahaan Gas Negara Tbk (PGAS), and the highest was 0.085 in 2022, achieved by Bank Negara Indonesia (Persero) Tbk (BBNI). For the PSEi index, the minimum return was -0.203 in 2020, attributed to GT Capital Holdings Inc. (GTCAP), and the maximum was 0.189 in 2022, recorded by Aboitiz Power Corporation (AP). The SET50 index showed a minimum return of -0.254 in 2020, from Thai Oil Pcl (TOP), and a maximum return of 0.181, posted by B. Grimm Power Pcl (BGRIM). In the STI index, the lowest return was -0.152 in 2020, observed in Yangzijiang Shipbuilding Holdings (BS6), and the highest was 0.140 in 2022, recorded by Sembcorp Industries (U39). Finally, the HNX30 index recorded the widest return range, with a minimum of -0.286 in 2020 by Tri Viet Asset Management Corporation Joint Stock Company (TVC), and a maximum of 0.462 in 2022 by Licogi 14 JSC (L14).

Table 2 provides descriptive statistics for abnormal returns, offering further insight into return variability across the ASEAN indices. As observed with stock returns, abnormal returns during January tend to show greater volatility. The most extreme abnormal return occurred in the HNX30 index, with a maximum of 0.361 in 2021 and a minimum of -0.423, highlighting the high volatility of the Vietnamese market, likely driven by speculative trading behavior. On average, abnormal returns in January are slightly negative or hover near zero, whereas abnormal returns in non-January months tend to cluster more tightly around zero. This pattern suggests a higher degree of market efficiency during non-seasonal months, in line with expectations from efficient market theory.

Table 2. Descriptive Statistics of Abnormal Returns

		2020			2021			2022		
Indices	**N**	**Min**	**Max**	**Mean**	**Min**	**Max**	**Mean**	**Min**	**Max**	**Mean**
FBM January	25	-0.105	0.092	0.001	-0.091	0.076	-0.031	-0.091	0.129	0.000
FBM Non-january	25	-0.008	0.010	0.000	-0.007	0.008	0.003	-0.012	0.008	0.000
LQ January	27	-0.160	0.093	-0.008	-0.186	0.284	-0.012	-0.227	0.070	-0.022
LQ Non-january	27	-0.008	0.015	0.001	-0.026	0.017	0.001	-0.006	0.021	0.002
PSE January	23	-0.140	0.103	-0.019	-0.081	0.066	-0.004	-0.099	0.147	0.016
PSE Non-january	23	-0.009	0.013	0.002	-0.006	0.007	0.000	-0.013	0.009	-0.001
SET January	33	-0.171	0.222	0.014	-0.105	0.112	-0.004	-0.120	0.108	0.011
SET Non-january	33	-0.020	0.016	-0.001	-0.010	0.011	0.001	-0.010	0.011	-0.001
STI January	24	-0.136	0.062	-0.013	-0.101	0.117	-0.003	-0.122	0.061	-0.024
STI Non-january	24	-0.006	0.012	0.001	-0.011	0.009	0.000	-0.006	0.011	0.002
HNX January	16	-0.154	0.128	-0.033	-0.423	0.361	-0.017	-0.230	0.085	-0.112
HNX Non-january	16	-0.012	0.014	0.003	-0.033	0.038	0.002	-0.008	0.021	0.010

Source: Data processed

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Table 2 reports the minimum, maximum, and average (mean) abnormal returns for each index over the 2020–2022 period. For the FBMKLCI index, the minimum abnormal return was -0.105, recorded by PETRONAS Chemicals Group Bhd (5183) in 2020, while the maximum was 0.129, observed in Press Metal Aluminum Holdings (8869) in 2022. In the LQ45 index, the lowest abnormal return was -0.227 by Aneka Tambang Tbk. (ANTM) in 2022, and the highest was 0.284 by Indah Kiat Pulp & Paper Tbk. (INKP) in 2021.

For the PSEi index, LT Group Inc. (LTG) posted the minimum abnormal return of -0.140 in 2020, while Aboitiz Power Corporation (AP) recorded the maximum of 0.147 in 2022. The SET50 index showed a minimum of -0.171 from Thai Oil Pcl (TOP) and a maximum of 0.222 from B. Grimm Power Pcl (BGRIM), both in 2020. In the STI index, the lowest abnormal return was -0.136 in 2020 by Yangzijiang Shipbuilding Holdings (BS6), and the highest was 0.117 in 2021, recorded by Thai Beverage (Y92). Lastly, for the HNX30 index, the minimum abnormal return was -0.423 in 2021 by C.E.O Group Joint Stock Company (CEO), while the maximum was 0.361, posted by NETLAND Real Estate Joint Stock Company (NRC), also in 2021.

Table 3. Normality Test of Stock Returns

		2020			2021			2022		
Indecs	**N**	**Mean**	**Std. Dev**	**Sig**	**Mean**	**Std. Dev**	**Sig**	**Mean**	**Std. Dev**	**Sig**
FBM January	24	-0.043	0.043	0.200	-0.067	0.039	0.200	-0.037	0.052	0.200
FBM Non-january	24	0.002	0.009	0.117	0.008	0.014	0.200	0.005	0.009	0.109
LQ January	25	-0.072	0.069	0.200	-0.078	0.069	0.200	0.003	0.048	0.200
LQ Non-january	25	0.011	0.020	0.078	0.006	0.025	0.192	0.010	0.024	0.200
PSE January	23	-0.088	0.061	0.054	-0.069	0.049	0.200	0.047	0.072	0.113
PSE Non-january	23	0.011	0.016	0.200	0.013	0.019	0.200	-0.007	0.013	0.124
SET January	31	-0.025	0.097	0.106	0.005	0.052	0.200	0.007	0.061	0.200
SET Non-january	31	-0.005	0.013	0.200	0.010	0.014	0.200	0.004	0.016	0.200
STI January	24	-0.033	0.053	0.200	0.010	0.061	0.200	0.014	0.064	0.200
STI Non-january	24	-0.003	0.017	0.127	0.001	0.015	0.060	0.005	0.015	0.200
HNX January	17	-0.034	0.084	0.200	0.009	0.162	0.200	-0.090	0.177	0.116
HNX Non-january	17	0.061	0.038	0.145	0.105	0.068	0.134	-0.045	0.041	0.200

Source: Data processed

Before conducting hypothesis testing, the study assessed data normality using the Kolmogorov–Smirnov test (Tables 3 and 4). The results show that both return and abnormal return data are normally distributed across all indices and periods, as indicated by significance values greater than the 0.05 threshold. This result confirms that the data

meet the assumptions required for the application of the Paired Sample t-Test. The detailed results of the normality tests are presented in Table 3.

Table 3 presents the results of the stock return normality test for each index during the 2020–2021 period. The significance values from the Kolmogorov–Smirnov test are all above the 0.05 threshold, indicating that the stock return data for all indices are normally distributed.

Table 4. Abnormal Return Normality Test

		2020			2021			2022		
Indecs	**N**	**Mean**	**Std. Dev**	**Sig**	**Mean**	**Std. Dev**	**Sig**	**Mean**	**Std. Dev**	**Sig**
FBM January	25	0.001	0.042	0.200	-0.031	0.044	0.198	0.000	0.051	0.200
FBM Non-january	25	0.000	0.004	0.200	0.003	0.004	0.198	0.000	0.005	0.200
LQ January	27	-0.008	0.072	0.190	-0.012	0.113	0.171	-0.022	0.058	0.200
LQ Non-january	27	0.001	0.007	0.190	0.001	0.010	0.171	0.002	0.005	0.200
PSE January	23	-0.019	0.059	0.200	-0.004	0.035	0.149	0.016	0.067	0.200
PSE Non-january	23	0.002	0.005	0.200	0.000	0.003	0.149	-0.001	0.006	0.200
SET January	33	0.014	0.093	0.200	-0.004	0.054	0.200	0.011	0.056	0.200
SET Non-january	33	-0.001	0.008	0.200	0.001	0.005	0.200	-0.001	0.005	0.200
STI January	24	-0.013	0.048	0.120	-0.003	0.060	0.200	-0.024	0.056	0.200
STI Non-january	24	0.001	0.004	0.120	0.000	0.005	0.200	0.002	0.005	0.200
HNX January	16	-0.033	0.084	0.200	-0.017	0.167	0.200	-0.112	0.086	0.200
HNX Non-january	16	0.003	0.008	0.200	0.002	0.015	0.200	0.010	0.008	0.200

Source: Data processed

Table 4 presents the results of the abnormal return normality test. The significance values for both January and non-January periods across all indices exceed the 0.05 threshold, indicating that the abnormal return data are normally distributed. Therefore, the assumption of normality required for the Paired Sample t-Test is satisfied. The analysis used to test the research hypothesis is the Paired Sample t-Test. This statistical method compares two related samples to identify whether there is a significant difference between them. The results of the Paired Sample t-Test for each index during the 2020–2022 period are presented in Table 5.

Table 5 presents the results of the Paired Sample t-Test for stock index returns across various ASEAN countries. For the FBMKLCI index, the significance values for all three consecutive years are below 0.05 (<0.05), indicating a statistically significant difference in stock returns between January and the other months during the 2020–2022 period. In the LQ45 index, the significance values for 2020 and 2021 are also below 0.05, suggesting differences in stock returns between January and non-January months during those years. However, in 2022, the significance value is

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0.447 (above 0.05), indicating no significant difference in stock returns for that year. The PSEi index shows significance values below 0.05 for all three years, confirming consistent differences in stock returns between January and other months from 2020 to 2022.

Table 5. Paired T-test Return Test

	t	df	Sig. (2-tailed)	Information
FBM_JANUARY_20 - FBM_NONJANUARY_20	-4.777	23	0.000	Significant
FBM_JANUARY_21 - FBM_NONJANUARY_21	-7.639	23	0.000	Significant
FBM_JANUARY_22 - FBM_NONJANUARY_22	-4.092	23	0.000	Significant
LQ_JANUARY_20 - LQ_NONJANUARY_20	-5.056	24	0.000	Significant
LQ_JANUARY_21 - LQ_NONJANUARY_21	-5.401	24	0.000	Significant
LQ_JANUARY_22 - LQ_NONJANUARY_22	-0.773	24	0.447	Not Significant
PSE_JANUARY_20 - PSE_NONJANUARY_20	-7.188	22	0.000	Significant
PSE_JANUARY_21 - PSE_NONJANUARY_21	-7.374	22	0.000	Significant
PSE_JANUARY_22 - PSE_NONJANUARY_22	3.616	22	0.002	Significant
SET_JANUARY_20 - SET_NONJANUAR_20	-1.098	30	0.281	Not Significant
SET_JANUARY_21 - SET_NONJANUARY_21	-0.523	30	0.605	Not Significant
SET_JANUARY_22 - SET_NONJANUARY_22	0.272	30	0.788	Not Significant
STI_JANUARY_20 - STI_NONJANUARY_20	-2.676	23	0.013	Significant
STI_JANUARY_21 - STI_NONJANUARY_21	0.656	23	0.519	Not Significant
STI_JANUARY_22 - STI_NONJANUARY_22	0.667	23	0.511	Not Significant
HNX_JANUARY_20 - HNX_NONJANUARY_20	-3.836	16	0.001	Significant
HNX_JANUARY_21 - HNX_NONJANUARY_21	-2.004	16	0.062	Not Significant
HNX_JANUARY_22 - HNX_NONJANUARY_22	-1.041	16	0.313	Not Significant

Source: Data processed

Conversely, the SET50 index shows significance values above 0.05 across the 2020–2022 period, indicating no statistically significant difference in returns between January and the rest of the year. For the STI index, the 2020 significance value is 0.013 (below 0.05), suggesting a notable difference in returns. However, in 2021 and 2022, the significance values are above 0.05, indicating no significant return differences in those years.

Table 6 presents the significance values of abnormal returns across stock indices in ASEAN countries. For the FBMKLCI index, the abnormal return significance values in 2020 and 2022 are above 0.05, indicating no significant difference in abnormal returns between January and the other months. However, in 2021, the significance value is 0.002 (below 0.05), suggesting a statistically significant difference in abnormal returns

for that year. In the LQ45 index, the significance values for all three years (2020–2022) are above 0.05, indicating no significant change in abnormal returns between January and non-January months.

The same pattern is observed in the PSEi and SET50 indices, where no significant differences in abnormal returns are found across the three years. For the STI index, the significance values in 2020 and 2021 are above 0.05, showing no notable change in abnormal returns between January and the rest of the year. However, in 2022, the significance value is 0.045 (below 0.05), indicating a significant difference in abnormal returns for that year. Regarding the HNX30 index, the significance values in 2020 and 2021 are above 0.05, suggesting no meaningful difference in abnormal returns between January and non-January periods. In contrast, the 2022 significance value is below 0.05, confirming a statistically significant difference in abnormal returns for that year.

Table 6. Paired t-test Abnormal Return Test

	t	df	Sig. (2-tailed)	Information
FBM_JANUARY_20 - FBM_NONJANUARY_20	0.131	24	0.896	Not Significant
FBM_JANUARY_21 - FBM_NONJANUARY_21	-3.471	24	0.002	Significant
FBM_JANUARY_22 - FBM_NONJANUARY_22	-0.024	24	0.981	Not Significant
LQ_JANUARY_20 - LQ_NONJANUARY_20	-0.547	26	0.589	Not Significant
LQ_JANUARY_21 - LQ_NONJANUARY_21	-0.567	26	0.576	Not Significant
LQ_JANUARY_22 - LQ_NONJANUARY_22	-1.950	26	0.062	Not Significant
PSE_JANUARY_20 - PSE_NONJANUARY_20	-1.576	22	0.129	Not Significant
PSE_JANUARY_21 - PSE_NONJANUARY_21	-0.534	22	0.599	Not Significant
PSE_JANUARY_22 - PSE_NONJANUARY_22	1.147	22	0.264	Not Significant
SET_JANUARY_20 - SET_NONJANUARY_20	0.866	32	0.393	Not Significant
SET_JANUARY_21 - SET_NONJANUARY_21	-0.478	32	0.636	Not Significant
SET_JANUARY_22 - SET_NONJANUARY_22	1.153	32	0.258	Not Significant
STI_JANUARY_20 - STI_NONJANUARY_20	-1.340	23	0.193	Not Significant
STI_JANUARY_21 - STI_NONJANUARY_21	-0.253	23	0.803	Not Significant
STI_JANUARY_22 - STI_NONJANUARY_22	-2.117	23	0.045	Significant
HNX_JANUARY_20 - HNX_NONJANUARY_20	-1.596	15	0.131	Not Significant
HNX_JANUARY_21 - HNX_NONJANUARY_21	-0.415	15	0.684	Not Significant
HNX_JANUARY_22 - HNX_NONJANUARY_22	-5.216	15	0.000	Significant

Source: Data processed, 2023

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DISCUSSION

The Paired Sample t-Test results across the six ASEAN stock indices, FBMKLCI (Malaysia), LQ45 (Indonesia), PSEi (Philippines), SET50 (Thailand), STI (Singapore), and HNX30 (Vietnam), reveal statistically significant differences in some instances. However, these differences are neither consistent nor uniformly indicative of the January Effect. This inconsistency suggests that while return or abnormal return anomalies may occur, they do not follow a repeatable seasonal pattern strong enough to support the classical interpretation of the January Effect. Instead, these anomalies appear to be sporadic and episodic, shaped by context-specific factors rather than by a universal seasonal trend.

In financial theory, the January Effect is defined as a persistent and predictable rise in stock prices during January, historically attributed to tax-loss harvesting (Ooi, 2025; Roni, 2022), institutional portfolio rebalancing (López-Martín, 2023), or behavioral biases (Shanaev & Ghimire, 2021). However, the findings of this study challenge the applicability of that model within the ASEAN context. When empirically tested across diverse emerging markets in Southeast Asia, seasonal anomalies lack the consistency and directionality that would confirm the existence of a systematic January Effect.

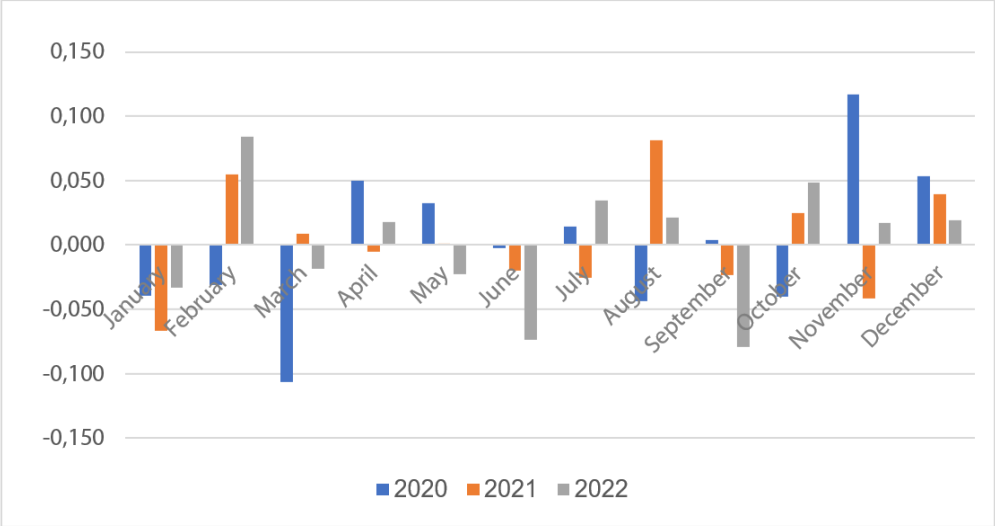
More specifically, the analysis reveals that differences in January returns are more prominent when examined through raw returns rather than abnormal returns. This discrepancy provides a critical insight: when market-adjusted measures are applied—those accounting for expected returns or systematic market risk—the strength of the anomaly diminishes. In financial analysis, abnormal returns serve as more reliable indicators of inefficiency because they isolate returns that exceed market expectations. Thus, the decline in statistical significance when transitioning from raw returns to abnormal returns reinforces the interpretation that observed January gains are more likely a reflection of market volatility or systemic noise, rather than evidence of genuine seasonal inefficiency.

The case of the FBMKLCI index from Bursa Malaysia illustrates this point well. Although the t-test indicated statistically significant differences in returns during the 2020–2021 period, a visual inspection of the return distribution (Figure 1) shows that January returns were not consistently higher than those in subsequent months. This result underscores a key conclusion: statistical significance alone, without a consistent upward January bias, is insufficient to confirm the presence of the January Effect. As such, statistical findings must be interpreted within the broader context of economic significance and directional consistency—both of which are absent in this study.

The distinctive contribution of this research, in contrast to prior studies, lies in its regional and comparative scope, offering a broader and more integrative analysis across multiple ASEAN capital markets rather than focusing on a single national context. Komariah et al. (2022) identified statistically significant differences in monthly returns

but concluded that these did not follow a predictable pattern consistent with the January Effect. Evianti et al. (2024) detected signs of the anomaly in the earlier years of their sample, but noted its disappearance in later periods, illustrating its temporal instability. Similarly, Latifa & Atikah (2024) found no significant differences in returns or abnormal returns, reinforcing the notion that such anomalies are likely episodic and context-dependent rather than systematic or persistent.

Figure 1. Distribution of Returns FBMKLCI



This study also highlights several underlying factors that may explain the lack of consistency in the January Effect across ASEAN markets. One major factor is the impact of the COVID-19 pandemic. In 2020, most ASEAN markets experienced heightened volatility, government interventions, and shifts in investor sentiment (Solihin et al., 2022). The higher incidence of significant return differences during that year supports the view that macroeconomic uncertainty, rather than seasonal behavior, may drive short-term return anomalies. In times of crisis, investor overreaction, liquidity constraints, and a flight-to-safety mentality can disrupt usual trading patterns, creating the illusion of seasonal anomalies that are driven by exogenous shocks (Kasim et al., 2022).

A second factor is the structural composition of the indices used in this study. The focus on large-cap indices may reduce the likelihood of detecting the January Effect. Foundational studies, including Rozeff & Kinney Jr. (1976), argue that the January Effect is predominantly a small-cap phenomenon, influenced by investor neglect, illiquidity premiums, and greater susceptibility to behavioral biases (Szymański & Wojtalik, 2020). Large-cap stocks, by contrast, are closely monitored by analysts, actively traded, and more efficiently priced, which reduces the opportunity for persistent seasonal anomalies. Therefore, the sampling bias toward large-cap indices in this study may structurally limit the detectability of calendar-based effects.

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Cultural and behavioral factors also play a role. Investor behavior in ASEAN countries tends to be more conservative, with relatively low participation from retail investors compared to Western markets. Cultural norms surrounding the end of the year, such as religious observances, increased risk aversion during uncertain periods, and generally lower levels of financial literacy, may limit practices like year-end portfolio rebalancing or tax-loss selling, which are key mechanisms often cited as drivers of the January Effect in developed economies (Wissawapaisal, 2023). As noted by Shahid & Sattar (2017), cultural and behavioral contexts influence investor decisions and reduce the likelihood of cyclical trading behavior. In contrast, investors in Western markets often engage in aggressive year-end financial adjustments influenced by tax planning, institutional mandates, and consumption cycles, thereby creating the conditions for predictable January price increases.

From a theoretical perspective, these findings lend support to the Efficient Market Hypothesis (EMH), particularly in its semi-strong form. EMH posits that all publicly available information is quickly and accurately reflected in stock prices, leaving no room for consistent abnormal returns. The absence of robust January anomalies across ASEAN indices suggests that prices generally follow a random walk and that any deviations are likely short-lived or the result of external shocks, rather than persistent inefficiencies (Dewi & Santosa, 2019). According to EMH, if market participants act rationally and information is disseminated symmetrically and absorbed efficiently, calendar anomalies such as the January Effect should not persist (Çakır, 2023).

Furthermore, from a behavioral finance standpoint, the lack of a consistent January Effect may reflect the bounded rationality of investors in less developed markets. In contexts where heuristics and cognitive biases such as overconfidence, loss aversion, and anchoring do not strongly influence calendar-based trading, seasonal anomalies are less likely to manifest (Haataja, 2021). Additionally, ASEAN markets may lack the institutional dynamics, such as mutual fund window dressing or year-end pension fund reallocations, that typically contribute to seasonal patterns in more mature financial systems.

CONCLUSION

This research aimed to examine the presence and consistency of the January Effect in six major ASEAN stock indices—FBMKLCI, LQ45, PSEi, SET50, STI, and HNX over the 2020-2022 period, using a comparative quantitative approach. The results indicate that although some indices exhibited statistically significant differences in January returns, these occurrences were sporadic and lacked consistency across years and markets. When returns were adjusted using the market model to calculate abnormal returns, the significance of these differences vastly diminished. This result suggests that the observed variations were more likely driven by external shocks and general market volatility rather than by a true seasonal anomaly.

Based on these findings, the study concludes that the January Effect is neither persistent nor generalizable in ASEAN capital markets during the observed period. The results support the Efficient Market Hypothesis (EMH), particularly in its semi-strong form, which posits that publicly available information is quickly incorporated into stock prices, limiting the potential for systematic seasonal anomalies. The study offers meaningful implications for investors, regulators, and researchers. For policymakers and market authorities, the findings underscore the importance of promoting broader market participation, particularly from retail and institutional investors, while also enhancing transparency, investor education, and access to information. Such measures could contribute to improved price discovery and greater overall market efficiency.

However, several limitations should be acknowledged. These include the relatively short three-year observation period, the exclusive focus on large-cap index constituents, and the influence of macroeconomic disruptions such as the COVID-19 pandemic, all of which may affect the generalizability of the results. Future research is encouraged to address these limitations by extending the study period, including small-cap or sector-specific indices, and incorporating additional variables such as trading volume or investor sentiment. Applying more advanced econometric methods or integrating behavioral finance frameworks may also yield a more nuanced understanding of how seasonal effects manifest in emerging markets.

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