

Institutional Ownership and January Effect

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Abstract—One of the market anomalies that often occurs in the capital market is the January Effect. This phenomenon occurs when stock returns in January become higher or increase compared to other months. Thus, this study aimed to analyze the January Effect and test the effect of institutional ownership of the anomaly January Effect. This study also uses market returns, stock turnover, and firm's size as control variables. The sample in this study were 73 companies that are categorized as LQ-45 in Indonesia Stock Exchange (ISE) period of 2012 to 2014 in accordance with predetermined criteria. This research method is purposive sampling with analysis techniques using t-test and Moderated Regression Analysis (MRA) which uses ($\alpha = 5\%$). The results of this study proves that the January Effect and institutional ownership has significant negative effect on January Effect. In addition, the results showed that market return, stock turnover, and firm's size has a significant positive effect on return.

Keywords—Institutional Ownership, January Effect, Return

I. Introduction

In the current era of globalization, competition in the business world is increasing and companies are competing to increase revenue. In carrying out its business, company needs funds to run its business smoothly [1]. One of the funding decisions that a company can make is to issue shares and offer them to investors through the capital market. Stocks are one of the most heavily traded financial instruments in financial markets such as the capital market because it offers a profit rate for investors [2]. According to Véron et al. [3], capital markets are markets where long-term debt and equity instruments are traded. The rapid development of capital markets in Indonesia has attracted the attention and interest of investors [4].

Investors who have invested in investments in a company are shareholders. Stock ownership by investors is generally divided into two types, namely individual ownership and institutional ownership [5]. Individual ownership is an investor who buys and sells securities for his or her personal interests. In the Law of the Republic of Indonesia Number 8 of 1995 concerning Capital Market Article 87, requires investors with ownership interest above 5% to report ownership and any change of ownership of shares to Capital Market and Financial Institution Supervisory Agency [6]. It is generally not able to be done by individual investors in Indonesia but usually done by institutional investors. This is because individual investors do not have large holdings and resources such as institutional investors. Institutional ownership is the ownership of shares of companies' majority owned by institutions such as insurance companies, banks, investment companies, pension funds and other institutions [7].

Institutional investors are the largest shareholders that can influence the policies taken by the company. Institutional ownership is a collection of several individual investors. This causes institutional investors to monitor all corporate management actions. Individual investors do not want the invested funds to make a loss. Based on information from the Indonesia Stock Exchange (ISE), institutional investors dominate the stock trading on the ISE with a percentage of 73.14% [8]. The purpose of investors in trading stocks is to get stock returns. According to Brigham et al. [9], return is the income received from an investment plus the usual market price changes. Investors with ownership above 25% such as institutional investors can determine company's policy for the purpose of obtaining stock returns achieved [10].

Basically, all institutional investors look for big companies and have good corporate governance [11]. Institutional investors play an important role in enhancing corporate value and can drive change by directly voicing the interests of the institution to the management of the company or by influencing managers indirectly [11]. This is because institutional investors are generally assumed to be long-term investors. Companies need to provide confidence and understanding of their business's developments to investors. The better the company attracts the attention of investors, the more investment funds will be received by the company. There are studies with differing opinions that suggest institutional investors are unsuited in voting of corporate management [12]. The information used by institutional investors is minimal and in making more investment decisions is entrusted to corporate external advisors. There is a risk that will have an impact on the management of the company in question, if institutional investors rely on external advisors [12].

The capital market also felt the role of institutional investors in enlivening stock trading on the Indonesia Stock Exchange. The growing number of institutional investors is increasing from year to year along with the movement of Composite Stock Price Index which has continued to grow in recent years. The Indonesia Stock Exchange routinely conducts Institutional Investor Day annually to increase the number of investors investing in Indonesia capital market [13]. The event organized by ISE is a meeting between institutional investors, stock exchange analysts, and investment managers with selected companies. This opportunity is used by selected issuers to open access for investors and establish wider relationships between the two [13]. The issuers make presentations on information about their business's development to institutional investors, stock analysts and investment managers. The information provided by the issuer at the Institutional Investor Day event can be used by investors in analyzing the investment returns to be received.

The capital market provides the information required by investors and based on this, there are three categories of market efficiency levels, namely weak-form market efficiency, semi strong-form market efficiency, and strong-form market efficiency [14]. In general, the capital market looks efficient but in fact there are anomalies. There are several forms of anomalies that occur in the capital market and one of them is Calendar Effect. Calendar Effect anomalies tend to occur at certain moments such as differences in capital market conditions in January and in the months other than January (January Effect) [15].

Companies are improving their financial statements at the end of the year and this is what led to the January Effect. The company's management decisions in improving financial statements may be influenced by institutional or individual shareholders. In December, the company sold out stocks that were badly conditioned to improve the company's investment presented in the financial statements. According to Han et al. [16], individual investors release and sell their owned shares to generate tax losses in order to reduce the amount of taxes paid at the end of the year while institutional investors are not affected by taxes. Since bad stocks were sold in December, they declined in price and will rise again in January, resulting in higher returns, a condition called window dressing. Based on Huang et al. [17], institutional investors from foreign and domestic reduce the occurrence of January Effect .

With the large number of institutional investors participating in stock trading on the Indonesia Stock Exchange, the role of institutional investors can also cause or reduce the occurrence of anomalies such as January Effect. Most of the companies listed on the Indonesia Stock Exchange have intervened from institutional investors. In addition, the size of the firm can also affect the company's stock return [18]. So, further research is needed to prove the size of the company affects the stock returns. In this study, firm's size was also used as control variable.

Thus, in this work, the authors have determined the effect of institutional ownership in the emergence of capital market anomalies such as January Effect. This work has used a sample of companies classified into the stock group LQ-45 index in the IDX period 2012-2014. This is because the stocks that fall into the LQ-45 index group are the best and stable stocks.

II. Methodology

A. Research Approach

The research method used in this research is quantitative approach. This study focuses on hypothesis testing, the use of measured data and inferential statistical analysis tools.

B. Research Variables

Based on the problem formulation and analysis model used, the variables in this study are divided into:

1. Dependent variable in this research is stock return.
2. Independent variable is January effect.
3. Moderate variables of this study are institutional ownership.
4. Control variables, consisting of:
 - a. Market return
 - b. Turnover of shares
 - c. Company size

C. Data Sources

The data used in this study is secondary data consisting of the company's stock price and LQ-45 market index for 36 months and the financial statements of companies classified in the LQ-45 index in the Indonesia Stock Exchange.

The data obtained from several sources including the Indonesian Capital Market Directory (ICMD), www.idx.co.id, and yahoo finance.

D. Population and Sample

The Indonesia Stock Exchange has a variety of market indices that are divided by sector or constituency. Market index is one indicator or a reflection of stock price movement. One of the market indices contained in Indonesia Stock Exchange is LQ-45 which was used by the authors as sample in this work. The study population is company listed on the Indonesia Stock Exchange with a period of research from 2012 to 2014. To limit the scope of the study, the sample is determined by purposive sampling method, that is the sample determination technique from the population that meets certain criteria and certain limits that have been determined. The criteria and limits are as follows:

1. Companies classified in the LQ-45 market index listed on the Indonesia Stock Exchange for the period 2012-2014.
2. Companies with a minimum share ownership of 5% owned by the institution.
3. Companies that do not do stock split or reverse stock during the study period of 2012-2014.
4. Companies are not delisted during the study period of 2012-2014.
5. Companies that consistently issue financial statements during the study period of 2012-2014.

E. Analysis Technique

In testing the first hypothesis, H_1 : A January Effect occurred in a company classified as LQ-45 on the ISE the researcher uses T-test. This method is used to prove the difference in average stock returns in January is higher than in other months.

To prove second hypothesis, H_2 : January Effect is negatively influenced by Institutional Ownership in companies classified as LQ-45 on the ISE, researcher use method of Moderated Regression Analysis (MRA). This method is a special tool of multiple linear regression which in the regression equation contains an element of interaction (multiplication of two or more independent variables)..

III. Result and Discussion

A. Description of Research Variables

The research variables used in this research are stock return, January month(D1), ownership, institutional (AIS), market return, stock turnover, and firm's size. Description of data of these variables can be seen in the Table 1. Based on Table 1, The average value of stock returns during the 2012-2014 period is 0.004371. For the lowest value of stock returns was exhibited by PT Bumi Resources Tbk in November 2013 with a value of -0.3626 and the largest share return value was exhibited by PT Multipolar Tbk in April 2014 with a value of 0.4955. The diversity of return, Rm, turnover and D1 values in the sample during the 2012-2014 period is relatively large because the average value is smaller than the standard deviation value. Meanwhile, Size and AIS have a relatively small diversity of values because the average value is greater than the standard deviation value. Institutional ownership variables (AIS) which are measured by using a percentage of the number of shares held by the institution against the total number of shares outstanding in total, obtained an average value of 60.6490%. The D1 average value of 0.083333 shows that the data obtained in January during the 2012-2014 period were 8.33%. The stock turnover variable whose minimum value of 0.0016 indicated that the ratio of the number of shares traded with the number of shares outstanding was very diverse. The size of the company obtained the highest value of 33.4176 and the lowest value of 27.6026.

Table 1. Description of Research Variables Year 2009 to 2012

Variable	N	Min	Max	Mean	Std. Dev
<i>Return</i>	1548	-0.3626	0.4955	0.004371	0.1057004
<i>D1</i>	1548	0.0000	1.0000	0.083333	0.2764747
<i>AIS</i>	1548	0.1116	0.9775	0.606490	0.1679290
<i>Rm</i>	1548	-0.1274	0.0738	0.009111	0.0416677
<i>Turnover</i>	1548	0.0016	0.5101	0.040472	0.0471138
<i>Size</i>	1548	27.6026	33.4176	31.025323	1.1871689

B. Shapiro-Wilk Normality Test

Shapiro-Wilk test in this research is used to know the data used for t-test is normally distributed or not. Based on the result of Shapiro-Wilk Test presented in Table 2, it can be seen that the value of significance (p> value) return in non-January month based on Shapiro-Wilk Test is 0.065 which means greater than 0.05. For returns in January, it is known to be normally distributed due to sig (p-value) of 0.151 which means greater than 0.05. This indicates that the data for t-test has been normally distributed. Requirements for performing the t-test have been fulfilled.

Table 2. Description of Research Variables Year 2009 to 2012

Month		Kolmogorov-Smirnova		Shapiro-Wilk	
		Statistic	Sig	Statistic	Sig
Return	Non January	0.070	0.200	.981	0.065
	January	0.082	0.034	.985	0.151

C. Normality Test

Figure 1 shows the normal p-p plot. Based on the graph shown in Figure 1, the points spread on the diagonal line even though there are few plots that deviate from the diagonal line. The plot still follows the direction of the diagonal line indicating the normal distribution pattern. From the normality test results, this regression model is suitable for use in this study.

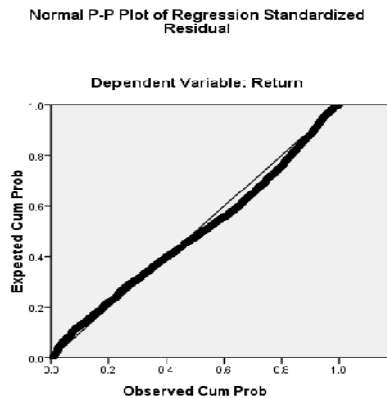


Figure 1. Normal P-P plot.

D. Multicollinearity Test

Multicollinearity shows the existence of perfect linear correlation or near perfect between the independent variables. Multicollinearity test in this research use Pair-Wise Correlation value between independent variables. If the value of correlation coefficient between variables, is not more than 0.7 then the regression model in this study does not contain symptoms of multicollinearity.

Based on the Coefficient Correlations in Table 3, the Pair-Wise Correlation coefficient value between the variables is less than 0.7. The highest coefficient value is 0.465 between the Size variable with Turnover, but the value is smaller than 0.7. It can be concluded that the regression model formed in this study did not experience the symptoms of multicollinearity.

Table 3. Multicollinearity Test

Model	D1xAIS	SIZE	Rm	AIS	Turnover	D1
Correlation D1xAIS	1.000	0.002	-0.004	-0.283	-0.005	-0.961
SIZE	0.002	1.000	-0.044	-0.087	0.465	0.008
Rm	-0.004	-0.044	1.000	0.006	-0.057	-0.040
AIS	-0.283	-0.087	0.006	1.000	0.237	0.271
Turnover	-0.005	0.465	-0.057	0.237	1.000	0.017
D1	-0.961	0.008	-0.040	0.271	0.017	1.000

E. Autocorrelation Test

The autocorrelation test aims to test for a high correlation between the confounding error in period t and the disturbance error in the previous period t-1. The test was performed using Durbin Watson Test to detect the presence or absence of autocorrelation symptoms in the regression model established in the study. The test results in Table 4 show the Durbin Watson value of 1.837 with R value of 0.406. Based on the results of the test using Durbin Watson since the value was within Durbin Watson range dU (1,770) dan 4-dU (2,542), it is shown that the regression model in this study is free from autocorrelation symptoms.

Table 4. Autocorrelation Test

Model	R	R Square	Adjusted Square R	Std Error of the Estimate	Durbin- Watson
1	0.406	0.165	0.162	0.0967642	1.837

F. Heteroscedasticity Test

The heteroscedasticity test aims to examine the variance inequality of one observation's residual to another on the regression model. If the variance of the residual one observation to another observation remains, it is called homoscedasticity and if different is called heteroscedasticity. Heteroscedasticity can be tested by graphical analysis using a scatter plot. Based on the scatter plot in Figure 2, the points do not form a clear pattern and spread randomly above and below the zero on the Y axis. It can be concluded that the regression model in this study did not exhibit heteroscedasticity symptoms.

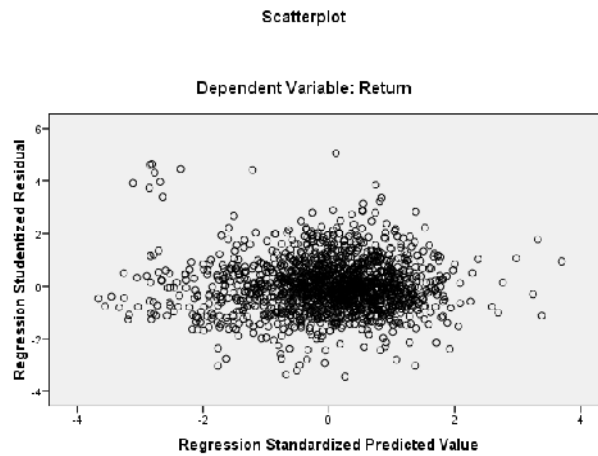


Figure 2. Scatter plot

G. T-test

Statistical results using Independent-Samples is shown in Table 5. Based on the Table 5, it can be seen the average value of return in January was 0.042656 with standard deviation of 0.0952918 and the average return value in the months other than January amounted to 0.000890 with standard deviation value of 0.0339536. This shows that the average value of returns in January is greater than the average return value in months other than January for the period 2012-2014.

Table 5. Statistical Test Results

Month	N	Mean	Std Deviation	Std Error Mean
Return January	129	0.042656	0.0952918	0.0083900
Non- January	129	0.000890	0.0339536	0.0029894

However, this is not entirely correct so it needs to be proven by using t-test. Table 6 shows the t-test result. Table 6 shows that the data used in t-test is not homogeneous. This is because the value of significance (p-value) in Levene's Test is only 0.000 which means less than 0.05. This assumption can not be fulfilled because there is a special t-test for non-homogeneous data. If the data is not homogeneous, then in the table the results used are the second line. The significance (p-value) value for non-homogeneous data is 0.000 and is less than 0.05. This shows that there is an average difference between stock returns in January and stock returns in the months other than

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January. In addition, there is an average difference of 0.0417657. The other values of mean difference and standard error difference is shown in Table 6.

Table 6. T- Test Results

	Levene's Test		t-test for Equality of Means				
	F	Sig.	T	df	Sig. (2-tailed)	Mean Diff	Std Error Diff
Return EVA	83.577	0.000	4.689	256	0.000	0.0417657	0.0089067
EVNA			4.689	159.986	0.000	0.0417657	0.0089067
EVA : Equal Variances Assumed							
EVNA : Equal Variances Not Assumed							

H. Moderated Regression Analysis (MRA)

The results described in Table 7 can be used to determine the effect of dummy variable (D1) in January which has an interaction element with institutional ownership (AIS) on January Effect. In addition, based on the regression results can be seen the effect of dummy variable (D1) in January, institutional ownership (AIS), market return, stock turnover, firm's size (SIZE) to monthly stock returns.

Based on the results of regression in Table 7 indicates that January dummy variables, institutional ownership (AIS), market return, stock turnover, and firm's size (size) have a positive effect on monthly stock returns. Institutional ownership (AIS), January dummy variables, market returns, stock turnover, and firm's size (size) have a significant effect on monthly stock returns.

The value of R² or coefficient of determination in this research model is 0.165. This shows that market return variables, stock turnover, firm's size (size), January dummy variables, and institutional ownership (AIS), can explain monthly stock return variables of 16.5% while the rest are influenced by other variables that was not analyzed in this work.

Table 7. Moderated Regression Analysis

	Dependent Variables: Monthly Stock Return			
	Unstandardized Coefficients			
Model	B	Std Error	T	Sig./2
Constant	-0.567	0.076	-7.461	0.000
D1	0.116	0.033	3.525	0.000
AIS	0.047	0.016	2.919	0.002
D1 x AIS	-0.149	0.052	-2.892	0.002
Rm	0.842	0.060	14.052	0.000
Turnover	0.406	0.063	6.498	0.000
Size	0.017	0.002	6.899	0.000
R	0.406			
R ²	0.165			
F-test	50.821			
Sig	0.000			

I. Overall Discussion

Based on the result of t-test shows that the average value of stock return in January is greater than stock return in months other than January. This shows the January effect occurred during the study period. The statement is also reinforced from the regression results that show the January dummy variables have a significant positive effect. These results are consistent with the study of Poterba et al. [19], and Lakonishok et al. [10].

Anomalies January Effect occurred due to an increase in stock prices in January. This increase in stock price provides an opportunity for investors to obtain higher stock returns. This happened when investors sold large amounts of shares in December resulting in a fall in stock prices and investors bought those shares back in January that eventually made the stock price go up and give higher stock returns.

January Effect can occur due to investment activity conducted by institutional investors and individual investors [21]. Factor that cause January Effect is because investors want to generate tax loss, in order to get a reduction in amount of taxes to be paid at the end of the year as reported by Patel et al. [21]. In addition, investors also sold

shares of bad stock at the end of the year. This is done with the aim to improve the stock portfolio's performance report at the end of the year called window dressing [21].

Based on the result of Moderated Regression Analysis (MRA), it can be seen that institutional ownership negatively affect the return in January. This shows that institutional ownership reduces the January effect. Institutional investors did not sell shares in December to generate tax losses, but bought stocks with good reputation and conditions. This makes institutional investors reduce the January effect. Stocks bought by institutional investors will increase in price in the market. January Effect occurs when there are stocks that decline in price because it was sold in December and increased because it was bought in January which resulted in investors will get a higher return in January [22].

Institutional investors do not pay attention to the stock selling factor at the end of the year. This is because institutional investors have information about better stock prices compared to individual investors. The profit is owned by institutional investors because it has a number of shares with a percentage of more than 5% and is the majority shareholder [22]. An increase in stock prices in January did not affect institutional investors to buy shares. So, institutional investors are not interested in higher returns in January [21,22].

Investing activities by institutional investors are more regular in buying and selling stocks and usually in large volumes. Institutional investors sell and buy stocks with caution. This is because institutional investors are an organization made up of several individuals. Before making a sale or purchase of shares, institutional investors conduct a prior analysis of the company's circumstances [23]. Institutional investors tend to invest for long periods of time. This is clearly different from individual investors who make stock investments to get the maximum return at a short time [11].

In this study, the market return has a significant positive effect on monthly stock returns. Influence of market return is in the same direction with monthly stock return. Any changes that occur in the market can be known through the market index. One of the indicators that investors use to see the movement of stock prices, is using the market index. When the market index shows a good movement, then investors will be interested to perform investment activities. Monthly stock returns will increase as market returns increase [24].

Company size has a significant positive effect on monthly stock returns. This shows that the larger the size of a company, the greater the return of shares to be obtained [24]. These results are in contrast to van Dijk's [18] study which says that smaller firms have higher returns than larger firms. The cause of stock returns in small companies is smaller than large companies is because the risks of small firms are not as big as the risks of large companies. The greater the risk of the portfolio of a company, the greater the return will be obtained. Investors tend to be more interested in investing in companies to get high returns despite high risks.

Institutional ownership has a significant positive effect on monthly stock returns. This shows that institutional ownership plays a role in increasing the stock price of a company. The rising stock price will give a higher return than the previous period. This is profitable for investors who seek the maximum possible return. The cause of institutional ownership may increase stock prices because institutional investors take sides with the interests of minority shareholders seeking long-term investments in the form of dividends or short-term in the form of abnormal returns. Institutional investors play a role in increasing the value of the company through an increase in stock prices that can lead to increased stock returns.

IV. Conclusion

Based on the results of research and analysis, it can be concluded as follows:

1. Stocks classified as LQ-45 in IDX period 2012-2014 have January Effect. Anomalies January Effect occurs caused by investors who want to get a tax loss at the end of the year. In addition, investors also want to improve the stock portfolio performance report by the end of the year by selling stocks with bad conditions called window dressing.
2. Institutional investors play a role in reducing the January Effect because institutional investors do not sell stocks at the end of the year to generate tax losses, but buy stocks with good reputation and conditions. This is because institutional investors trade stocks more regularly and in large volumes that tend to invest for long periods of time.
3. Market return, stock turnover, firm's size and institutional ownership have a significant positive effect on return.

References

- [1] Crane, A., & Matten, D. (2016). *Business ethics: Managing corporate citizenship and sustainability in the age of globalization*. Oxford University Press.
- [2] Vernon, R. (2017). International investment and international trade in the product cycle. In *International Business* (pp. 99-116). Routledge.
- [3] Véron, N., & Wolff, G. B. (2016). Capital Markets Union: a vision for the long term. *Journal of Financial Regulation*, 2(1), 130-153.
- [4] Basri, M. C., & Hill, H. (2011). Indonesian growth dynamics. *Asian Economic Policy Review*, 6(1), 90-107.
- [5] Uysal, N. (2014). The expanded role of investor relations: Socially responsible investing, shareholder activism, and organizational legitimacy. *International Journal of Strategic Communication*, 8(3), 215-230.
- [6] Juliati, Y. S. (2015). Peranan Pasar Modal Dalam Perekonomian Negara. *HUMAN FALAH: Jurnal Ekonomi dan Bisnis Islam*, 2(1), 95-112.
- [7] Boone, A. L., & White, J. T. (2015). The effect of institutional ownership on firm transparency and information production. *Journal of Financial Economics*, 117(3), 508-533.
- [8] Dr.S.Ramahrishnan,B.Elakkiya R.Geetha ,P.Vasuki Professor head, UG Scholars Department of Information Technology, Dr.Mahalingam College of Engineering and Technology. "Image Encryption Using Chaotic Maps in Hybrid Domain ." *International Journal of Communication and Computer Technologies* 2.2 (2014), 74-78.
- [9] Brigham, E. F., & Houston, J. F. (2012). *Fundamentals of financial management*. Cengage Learning.
- [10] Fujianti, L. (2016). Analysis Market Reaction on Timeliness Reporting: Study on Indonesia Stock Exchange. *International Journal of Business Management and Invention*, 5(3), 1-10.
- [11] Yu, M. (2013). State ownership and firm performance: Empirical evidence from Chinese listed companies. *China Journal of Accounting Research*, 6(2), 75-87.
- [12] Malik, M. (2015). Value-enhancing capabilities of CSR: A brief review of contemporary literature. *Journal of Business Ethics*, 127(2), 419-438.
- [13] Ahmad, G. N., & Wardani, V. K. (2014). The effect of fundamental factor to dividend policy: Evidence in Indonesia Stock Exchange. *International Journal of Business and Commerce*, 4(2), 14-25.
- [14] Sari, A. K., Saputra, H., & Siahaan, A. P. U. P. U. (2018). Financial Distress Analysis on Indonesia Stock Exchange Companies. *Int. J. Innov. Res. Multidiscip. F*, 4(3), 73-74.
- [15] Balint, C., & Gică, O. (2012). Is the January effect present on the Romanian capital market?. *Procedia-Social and Behavioral Sciences*, 58, 523-532.
- [16] Han, Y., & Li, D. (2015). Effects of intellectual capital on innovative performance: The role of knowledge-based dynamic capability. *Management Decision*, 53(1), 40-56.
- [17] Huang, R. D., & Shiu, C. Y. (2009). Local effects of foreign ownership in an emerging financial market: Evidence from qualified foreign institutional investors in Taiwan. *Financial Management*, 38(3), 567-602.
- [18] Van Dijk, M. A. (2011). Is size dead? A review of the size effect in equity returns. *Journal of Banking & Finance*, 35(12), 3263-3274.
- [19] Poterba, J. M., & Weisbenner, S. J. (2001). Capital gains tax rules, tax-loss trading, and turn-of-the-year returns. *The Journal of Finance*, 56(1), 353-368.
- [20] Lakonishok, J., Shleifer, A., Thaler, R., & Vishny, R. (1991). *Window dressing by pension fund managers* (No. w3617). National Bureau of Economic Research.
- [21] Patel, J. B. (2016). The January effect anomaly reexamined in stock returns. *Journal of Applied Business Research*, 32(1), 317.
- [22] Ullah, I., Ullah, S., & Ali, F. (2016). Market Efficiency Anomalies: A Study of January Effect In Karachi Stock Market. *Journal of Managerial Sciences Volume X Number, 1*, 32.
- [23] Chen, Z., & Craig, K. A. (2018). January sentiment effect in the US corporate bond market. *Review of Behavioral Finance*, 10(4), 370-386.
- [24] Gu, L. (2016). Product market competition, R&D investment, and stock returns. *Journal of Financial Economics*, 119(2), 441-455.