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Does Black Monday Appear on The Indonesia Stock Exchange?

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Article Info

Abstract
Stock transactions are based on a daily transaction, where Monday begins more closed time than other days. For this reason, Monday is more volatile than other days. **Findings**. We find that a positive return opportunity larger (more than 60%) occurs on all trading days. This result indicates the potential for Investment in Indonesia Stock Exchange. We also found "Black Monday" in sectors 1 and 9, indicate Monday Lower Return and Volume compare other days. About 77% results Monday volume lower than other days. This shows Monday trading activity has not risen. This situation does not fit the hypothesis, where after the holiday weekend, investors are eager to invest. In this case, it means that at the weekend, more negative information, so that trade transactions have not increased. Regarding the correlation between (ρ) return(o-c) and return(c-c) it is found that almost all are significantly positive except in sector 4; 5; total and LQ 45. This positive correlation indicates that not much information flow entered when the market was closed.

1. Introduction

Activities on the capital market occur routinely, five days per week, where prices change continuously in a matter of microseconds. For this reason, investors can actively perform transactions and hope to get a return (capital gain). Besides, there are 'transaction holidays' which occur on Saturday and Sunday at a closed trading session. If there is information during breaks, then the price will respond as a reflection of the efficient market hypothesis. However, especially on Monday, when there are more information opportunities, the opportunity for price changes also becomes more than other days. Therefore, the opportunity to change prices will be higher on Monday, known as Monday Effects. Nevertheless, there is also an anomaly weekend effect, when larger positive-Friday return is followed by negative-Monday return.

For regular businesses, the flow of information will alter the price continuously and the book value remains. (Asnawi & Wijaya, 2007) show that market prices reflect book value and perception. This perception can be both upward and downward bias, and the value of perception can be very large. The perception can lead the investor or stakeholder to have good expectations toward the future and the perception can mislead to a bubble and error. For example, fluctuations in the 'silent stock' suddenly rise (for example, ABBA stock), showing the role of perception in

price formation. Several other shares (e.g. BRMS, IKKP) experienced sharp fluctuations, also caused by investors' perceptions regarding the issuer's future.

On the other hand, a change in price is also followed by a trading volume. This change should be a more appropriate measure to show how much influence the information has on the trading session. Referring to the return measurement, the 'dollar-weight' returns better for reflecting the investor's performance. A liquid market should refer to an enormous trading volume, not to a top price. For this reason, it is also necessary to know whether on Monday the trading volume is higher than on other days.

Some studies related to the Monday Effect have different results (research gap). First, the (Sularso et al., 2011) result of their research was no Monday effect on LQ-45 stock trading on the Indonesia Stock Exchange. Therefore, negative stock returns happened at the beginning of the week. This notion contradicts to the research, conducted by (Agustina, 2016), she stated that there was a Monday effect phenomenon on the LQ-45 index (The Indonesia Stock Exchange), on the DJIA 30 index on the New York Stock Exchange. Then the second research gap appears in (Udayani, 2016) research, the results of her research identified that there was a Monday effect on LQ45 stock returns for the period 2012, 2013, and 2012-2014, but it did not prove the Monday effect on the LQ-45 stock return for the period 2014. The third research gap also exists in the research of Rahmawati and Hidayati (2016), their findings clearly showed that there was a significant difference between stock returns on trading days in one week on the Indonesia Stock Exchange, in from February 2015 to January 2016. Then the Monday effect on stock trading on the Indonesia Stock Exchange, which resulted in negative stock, appears at the beginning of the week, from February 2015 to January 2016. This phenomenon is in contrast with the research of Cahyaningdyah dan Faidah (2017). The result of their research shows that there were some differences in effect of the trading day to stock return on the Indonesian Stock Exchange, during 2007-2015. They found negative stock returns on Monday (Monday effect) and the biggest return on Friday (weekend effect).

1.1. An Efficient Market Hypothesis

In the Efficient market, the price will fully reflect the available information. Information is not limited to financial or economic news, but also includes politics and social events. An investor must make a good interpretation of the available news since the decision will be reflected in stock prices. Information is very valuable in the stock market because investors hope that by getting more information, they can outperform the market where investments are made. The implication of an efficient market is the price react immediately without any bias towards new information. The sign of an efficient market is if the value of the security at all times exhibits all available information results in the price of a security being at its equilibrium level. This means there is no chance for an investor to get an abnormal return from the difference in the price of a stock's security.

According to Fama (1970), there are three forms of an efficient market. First, the weak form, if the last price of securities is reflected by the current price; second, the semi-strong form, if the price directly reflects all the information contained in the company's financial statements. If securities price changes continuously, it means that there is an indication of the information flow, later we will focus in this area. The third, the strong form, if the price fully reflects the private information. The effect of changing the securities price is simultaneously driving transactions (trading volume). Therefore, it needs to be re-examined whether the information that affects the price of securities can also affect the trading volume, especially related to the topic of this research, Monday vs non-Monday effect.

1.2. Market Efficiency Testing

Market efficiency testing is a famous tool to observe market efficiency, Fama in Jogiyanto (2013: 379-392) divides the market efficiency testing into three categories which correlate with the forms of market efficiency. On the other hand, there is also market efficiency testing for the semi-strong market, known as Event study. An event study studies about the market reaction to an event whose information is published as an announcement. This study can be used to test the information content of an announcement. The three categories for market efficiency testing are:

a) Testing information content

This test intends to see the reaction of an announcement. If the announcement contains information, the market will give a certain reaction, indicated by changes both in prices and trading volume of the securities. Furthermore, returns as the value of price changes or with abnormal returns can measure this reaction.

b) Market Anomaly

Market anomaly is an event or events that can be exploited to produce an abnormal return or profit. From several studies, it turns out that there is an irregularity detected in the capital market is not following the expectation of the capital market efficiency hypothesis, also, this irregularity takes place continuously and has a wide enough impact.

c) Types of Market Anomalies

Market anomalies appear in all forms of efficient markets, both weak, semi-strong, and strong. In financial theory, there are at least four types of market anomalies. The four anomalies are (Levy in Gumanti 2011):

1. Company Anomalies (Firm Anomalies)

   Company anomalies occur because of the existence of special characteristics or characteristics of the company. For example, small companies generate returns, after adjusting for risk, which is better than large companies, known as size anomalies. Another example is the Analyst Recommendation anomaly. The Analyst Recommendation anomaly is the more analysts recommend buying a stock, the higher the chance the price will go down.

2. Seasonal Anomalies

   Seasonal anomalies have a relation to time (season). Season influence the (commodity basis) company, such as trading (also stock price) will increase on days when the season is busy.

3. The event Anomalies

   The event Anomalies or IPO (Initial Public Offering) happens when prices change after an event or easily identifiable event, such as an announcement of a listing of shares. An example of this anomaly is the IPO situation where the price of a security is rising after the share register on the Exchange, or in the secondary market.

4. The Accounting anomalies

   The Accounting anomalies are changes in stock prices as a result of issuing accounting information. For example, earnings surprise anomaly is an anomaly associated with an increase in earnings. The announcement of increasing profits will raise stock prices. Companies that have progressed profits are higher than predicted, their share prices will improve relatively higher compared to other companies. An example of this anomaly is Earnings Surprise, stocks with higher actual earning than expected, and the stock price tends to grow continuously.

There are several seasonal famous anomalies, including:
a) January effect

The January Effect is a market anomaly that makes returns in January are higher compared to the previous month. Some causes of the January Effect (Astuti and Legowo, 2010), namely:

1. Tax Loss Selling

    Many investment advisors give the advice to sell securities that suffer losses before the end of the year and then purchase the same share at the beginning of the year. The action of selling and buying securities causes a price decline at the end of December and an increase in January.

2. Window Dressing

    The method of window dressing is the same as tax-loss selling. The difference is the person who carried out the responsibilities. Window dressing is the responsibility of the managers, the purpose is to make an excellent report on stock performance report at the end of the year.

b) The day of the week effect

Seasonal anomaly phenomenon, when there are differences in returns for each day and the effect of trading days in one week. The stock price will increase or decrease in different days in one week trading day. Variations of this anomaly include the Monday effect and the weekend effect. This phenomenon illustrates the difference in stock returns every day when there is a tendency to decrease yields on Monday compared to the other day.

c) Monday effect

The Monday effect is where Monday returns produce negative returns. Monday effect is part of the day of the week effect and occurs because of the effect from irrational investor behavior patterns on Monday trading. Rogalski examines the Monday effect by comparing Monday trading returns with non-trading weekend returns, i.e. returns on the session do not occur from Friday to Monday, where negative returns occur during the non-trading period.

d) The Weekend effect

The weekend effect is a phenomenon where the return on the last day of a trading week has a positive return. Another term for the weekend effect is the Friday effect in the stock market, and the last day of the trading week is Friday.

e) The Holiday effect

The holiday effect shows the tendency of the average stock return one day before the holiday (pre-holiday return) is higher and the stock return the day after the holiday (post-holiday return) is lower than the normal daily rate of return.

The Monday effect (often also referred to as the weekday effect) is one of the market anomalies that often happen. Another anomaly, often called calendar effects, is the January effect, seasonal effect, and holiday effect, and in particular, there is also a size anomaly. The articles (Fama & French, 1992), (Fama & French, 1995) evaluate the relation between return and beta, size and book to market factors. Another anomaly, the over-react hypothesis is introduced by (De Bondt & Thaler, 1985) and its replication in Indonesia can be read in (Asnawi, 2014). On a more general level, this anomaly is equivalent to 'event study', where this test includes testing efficient markets. The existence of anomaly indicates that investors can obtain abnormal returns and in the other words, the efficient market hypothesis does not exist. Asnawi and Wijaya use open-close price data in trading session I and trading session II. The results show that only

session I trade takes place, while and there is no activity in session II. Asnawi & Wijaya (2006) states that investors use hit-and-run strategies.

Novotná & Zeng (2017) examines the Shanghai Stock Exchange (SSE) and The Shenzhen Stock Exchange (SZSE), they want to know the existence of days of the week effect, on the Chinese capital market. The data in their study is the Composite Index, and for the measurement of returns, they apply two proxies, return close-close (c-c) and return open-close (o-c). NZ also estimates the chances of obtaining a negative (positive) return on each trading day. Obtained results on Monday on both exchanges are always positive (all proxies) and Thursday's return is all negative. Thursday Return has an actual difference with Monday's return. Some other results (Wednesday's return) are the highest positive return (Robins & Smith, 2016) while Friday's return has the lowest standard deviation.

NZ also examines (observes) the probability of a positive return on the trading day. NZ uses a logit equation and finds that the probability of positive return is over 50% for days; except on Thursday, the probability is lower than 50% and the conclusion is, Thursday is a 'bad day' for stock trading in China. (Robins & Smith, 2016) examine this day-effect with data in the USA. Robins and Smith use the OLS equation with days as a dummy-independent variable. Robins and Smith form a portfolio as it has been done by Fama-French (1993), then divide into two time periods (T1 and T2) and compare the returns on each day. They find that there is a significant return in almost all portfolio, Robins and Smith show the mean-return of Monday (T1) of -18 basis points (bp) (sign at α 1%) to -5bp (not significant) for the Equal-Weight Portfolio and they call this result as no longer an anomaly.

Olson et al (2015) test the weekend effect, focusing only on Monday and Friday returns. They use Friday's negative return as a dummy-explanatory variable (d=1), where the constant shows Monday returns for positive-Friday returns variable. The results show that both β0 and β1 are significant and show (support) evidence that weekend effects occur as reported in the literature.

The research of NZ, RS, and Olson et.al, shows various tests about the Monday Effect. The NZ's results do not support weekend anomaly and Wednesday's highest return, it means the Chinese Capital Market is more situational. In the RS paper, they refer to the overall results and obtain many significant results, yet there is no anomaly. The question is if the anomaly happens the whole day, does the anomaly exist? Olson et.al, research more specifically shows the relationship between Monday-Friday return; where both positive return (Friday) and (negative return) Friday have a significant effect. It illustrates that whatever happens on Friday, it will have an impact on Monday. This is following the hypothesis, Monday return tends to strengthen the Friday return.

The previous studies only focus on the return and do not involve the daily trading volume. Besides, research on trading volume usually refers to the relation between volume and price; or volume as a predictor for returns. The trading volume takes place because of disagreement in belief (Karpoff), where Bamber & Cheon (BC), Bamber, Barron, and Stober (BBS) find the evidence of Karpoff's hypothesis (Asnawi & Wijaya, 2005). (Gervais et.al, 2001) show that trading volume has information (information content) and it is a good predictor of returns, especially if extreme trading activity arises. (Pathirawasam, 2011) also does the same research in the Colombo Capital Market data and he discovers that high trade-group also obtains a high return.

Based on the previous literature overview, we research by replicating the Novotna and Zeng (NZ) research. Our contributions in this article are: (i) The addition of Trading Volume

different tests, to Monday and non-Monday, and (ii) A measurement of information flow when The Exchange is closed since the trading volume is believed to contain information content. The use of return o-c, as a complement to returning c-c; can also be used to find out the 'flow' of information when The Exchange is closed. As we know, the open price (today) and close price (the previous day) are not always the same. So open price can indicate a new 'atmosphere' or have information content. In this case, we will estimate the correlation (ρ) between return o-c and return c-c.

2. Research Method

The data of this study is daily data from 9 sectors, such as (1) Agriculture Sector; (2) Mining; (3) Chemistry & Basic Industry; (4) Miscellaneous industry; (5) Consumer goods Industry; (6) Property, Real Estate & Construction Industry; (7) Infrastructure; Utility and Transportation; (8) Finance; (9) Trade, Service and Investment Industry in 2017 and portfolio in the LQ 45 group. Further, the researcher uses purposive sampling to collect the data of each sector and the sectors must meet several asset criteria: large assets (75%); medium (50%) and small (25%) and especially for LQ 45. all firms used as samples Based on the criteria, the researcher receives 20 firms as the data source in this research.

Return is measured in two ways: open-close (o-c) returns, the difference (relative) of the close and open price of the stock on the same day, and return-close and close price (c-c) i.e. the difference (relative) of today's closed price and yesterday's close price. Measurement of return is in equations (1) and (2):

$$E(r)_{0-c} = P_{t,c} - P_{t,o} \quad P_{t,o} \qquad (1)$$
$$E(r)_{c-c} = P_{t,c} - P_{t-1,c} \quad P_{t-1,c} \qquad (2)$$

We use a paired sample T-test to find out both day anomaly and trading volume, between Monday and other days. Thus there are 4 different tests, specifically, Monday-Tuesday (M-T), Monday-Wednesday (M-W), Monday-Thursday (M-Th), and Monday-Friday (M-F). We use logistic regression (equation 3) to find out the probability for negative returns, and equation (4) to calculate the value of probability:

$$\ln Y_{1-Y} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 \qquad (3)$$
$$p_x = \exp(b_o + B_1 x) \quad 1 + \exp(b_o + B_1 x) \qquad (4)$$

The researcher also applies day (dummy) variable for the equation above. The dummy information in the above equation is:

Ln $Y/(1-Y)$ = 1 if trading day has a negative return; 0= other
D_1 =1 if Monday; 0= other days
D_2 =1 if Tuesday; 0= other days
D_3 = 1 if Wednesday; 0 =other days
D_4 =1 if Thursday; 0=other days

We use correlation (ρ) between return (o-c) and return(c-c) on the same day to measure the flow of recent information when the trade is closed. If (ρ) is low-positive (insignificant) or negative, it shows the flow of information among the close time (t-1) and the open time (t0). Moreover, it indicates the open price (t0) differs from the close price (t-1). The measurement of volume is shown as the ratio of the volume of shares traded to the outstanding share as known Turnover Ratio.

3. Results And Discussions

The researcher employs the analysis of the Monday effect and the result is in table 1. According to Table 1, the Monday effect takes place in sectors 1 (Agriculture), 2 (Mining), 3 (Chemistry), and Basic Industry; (9) Trade, Service and Investment Industry. Monday return is obtained lower than other days, where there are some significant differences on certain days (sector 1, among Monday-Thursday, the sector 2 among Monday-Wednesday, the sector 3 among Monday-Thursday, Monday-Friday and for sector 9 among Monday-Wednesday, Monday-Friday and Monday-Thursday).

Table 1. Return Differential AmongMonday and Other Days On The
Indonesia Stock Exchange

Sectors	Return(o-c)				Return(c-c)			
	M-T	M-W	M-Th	M-F	M-T	M-W	M-Th	M-F
1	-0,0006	-0,00136	-0,00256	-0,0016	-0,00094	-0,00156	-0,00307	-0,00102
	-0,65	0,357	0,08	0,224	0,496	0,286	0,037	0,437
2	-0,00154	-0,00214	-0,00136	-0,00172	-0,00198	-0,00204	-0,00104	-0,00109
	0,115	0,02	0,136	0,079	0,065	0,034	0,275	0,29
3	-0,00217	-0,00153	-0,00296	-0,00364	0,00001	-0,0008	-0,00167	-0,00205
	0,099	0,262	0,026	0,007	0,992	0,589	0,261	0,14
4	0,0028	0,00304	-0,00047	-0,00209	0,0418	0,05374	-0,02474	0,06166
	0,133	0,083	0,791	0,257	0,878	0,845	0,46	0,82
5	0,00115	-0,00132	-0,00218	-0,00037	-0,00072	-0,00229	-0,00311	-0,00111
	0,323	0,307	0,086	0,777	0,584	0,107	0,012	0,354
6	0,00195	0.00201	0.00068	0.00124	0.00226	0.00022	-0.00064	0.00074
	0.174	0.131	0.618	0.334	0.150	0.886	0.656	0.568
7	0.00250	0.00149	0.00180	0.00186	0.00100	0.00004	0.00100	0.00050
	0.188	0.415	0.301	0.262	0.608	0.985	0.558	0.766
8	0,00071	0,00138	-0,00150	-0,00041	-0,00101	-0,00118	-0,00379	-0,00143
	0,626	0,343	0,310	0,782	0,503	0,431	0,010	0,355
9	-0,00065	-0,00266	-0,00176	-0,00314	-0,00055	-0,00263	-0,00255	-0,00318
	0,620	0,046	0,132	0,019	0,682	0,081	0,040	0,024
All	0,00066	-0,00027	-0,00162	-0,00157	0,01011	0,01249	-0,00754	0,01505
	0,354	0,712	0,026	0,030	0,882	0,855	0,368	0,824
LQ 45	.00015	-.00195	-.00104	-.00034	.00068	-.00095	-.00020	.00059
	0.786	0.000	0.041	0.508	0.340	0.182	0.767	0.380

Notes: row (1) mean differential; row (2): significance (2 side)

This finding means Monday's return is lower than all other days. Concerning the efficient market hypothesis, it implies that the investor can do 'profit-taking' activities by buying on Monday and selling on other days. It signifies the weekend has a negative flow of information, which causes the Monday-stock price to be flat.This negative information flow does not occur on other days, so Monday's return is lower than the other returns.

The opposite results emerge in sector 7 (infrastructure, utility, and transportation), so the return on Monday is higher than the return on other days and this is against the hypothesis. This suggests that there is a large-positive information flow on weekends and continues to decline, so returns on other days are lower.

For sector 6 (property, real estate & construction industry), there is only one result that is under the hypothesis, the difference in return c-c (Monday-Thursday). Overall, more signs indicate conformity to the hypothesis, return on Monday then lower than the return on other days. From the results above, the researcher identifies that market anomalies apply where prices on Monday are lower than other days. Therefore, if the investor is buying on Monday and then they sell on the other day, they will make a profit. From the previous discussion, it shows that the market is inefficient. The other results in table 1 show, there are differences in return (anomaly) for both days and the sector. For example for sector 4 different returns for Monday-Tuesday, and Monday-Wednesday, are positive. This shows the return on Monday is greater than the return on Tuesday or Wednesday. For sector (6), with the measurement of return (o-c), the data shows a positive return difference for all days. It indicates that the open price on Monday is lower, so the return (o-c) on Monday is higher. The low price of open on Monday indicates that investors are 'not ready' to make transactions and or the amount of negative information on holidays and as a result, it accumulates on falling open prices on Monday. Here, the investor must give the concern to invest in sector 6.

Table 2. Logistic regression results

Sektor	r(o-c)						R(c-c)					
	c	D1	D2	D3	D4	χ^2	c	D1	D2	D3	D4	χ^2
1	-0,594	-0,042	0,095	0,03	0,256	15258	-0,648	-0,118	0,036	-0,018	-0,295	15006
2	-0,464	-0,023	0,109	0,076	-0,233	7549	-0,505	0,023	-0,059	0,236	-0,236	6558
3	-0,464	-0,002	0,109	-0,076	0,233	5693	-0,703	0,01	0,128	0,0072	-0,003	3486
4	-0,969	0,253	0,144	0,02	0,195	10,262	-0,9	0,113	0,08	0,033	0,185	4,468
5	-0,379	-0,128	-0,137	-0,239	-0,041	8,244	-0,537	-0,201	-0,205	-0,246	-0,047	10,824
6	-0.0674	0.047	-0.022	0.192	0.047	6.672	-0.731	0.141	0.056	0.281	0.086	10.953
7	-0.771	0.147	-0.068	0.239	0.135	13.948	-0.718	0.086	-0.013	0.107	0.116	3.476
8	-0,843	0,005	0,023	0,045	0,023	0,285	-0,856	0,031	0,058	0,026	0,018	0,387
	0,000	0,962	0,812	0,634	0,812	0,991	0,000	0,749	0,545	0,785	0,848	0,984
9	-0,490	-0,211	-0,014	-0,246	-0,045	12,813	-0,606	-0,188	0,032	-0,192	0,075	14,846
	0,000	0,021	0,879	0,007	0,618	0,012	0,000	0,044	0,726	0,039	0,411	0,005
1-9	-0,623	-0,045	0,053	-0,060	-0,054	17,252	-0,665	-0,062	0,040	-0,049	-0,036	12,716
LQ 45	-0.353	-0.070	-0.016	0.032	0.000	2.737	-0.373	0.039	-0.066	-0.055	-0.004	3.616

Next, the researcher will present the results of logit regression (equations 3 & 4) on the table (2&3). Table 2 shows the regression coefficient of equation (3), while Table 3 reveals the value of probability that happens for each day. From Table 3, the chance of a positive return is around 60% in all sectors, except for the LQ 45 on Monday and Friday. As a comparison of NZ research results, asserting that Thursday is a bad day for trading because of the <50% positive return opportunity. From this result, the investor can invest in all days and all areas. The spread of this business will be very good for the progress of the exchange, because the breadth of the issuer (sector) which is the basis of the transaction, so it will strengthen the exchange from the invasion of information flow or speculative transactions.

Investors can take advantage of this information by conducting trades (buying and selling) every day and earn a greater profit opportunity than a loss of opportunity. This is a beneficial

situation, where the transaction will increase stock liquidity so that the stock exchange grows more active, transparent, and profitable for security companies as well as self-regulation organizations. This should be an encouragement for all parties because the opportunity of positive return also shows the close price (trading session II) is higher than trading session I. The existence of positive activity in the trading session II will invite more deals and higher prices. However, there are conflicting situations, busy and high transactions in trading session I until closing (9-12 am), but no transactions occur in session II (1.30-4 pm). Thus, trading session I closing price is the same as the closing session II. As a comparison, Asnawi & Wijaya's (2006) study on the opening and closing prices of the trading Session I trade and II. They discover and conclude a hit-and-run strategy on the Indonesian stock market.

Table 3. The probability of positive return on trading days

sektor	r(o-c)					R(c-c)				
	M	T	W	Th	F	M	T	W	Th	F
1	66,11%	62,97%	64,47%	59,15%	77,21%	69,91%	66,57%	67,77%	73,50%	79,79%
2	62,95%	59,82%	66,17%	67,70%	72,53%	64,59%	59,77%	73,70%	68,74%	74,21%
3	62,95%	59,82%	64,18%	60,16%	72,53%	65,86%	63,16%	63,64%	66,84%	79,74%
4	67,17%	69,53%	72,09%	68,44%	72,49%	68,72%	69,42%	70,41%	67,15%	71,09%
5	62,41%	62,62%	64,98%	60,35%	59,36%	67,66%	67,74%	68,63%	64,20%	63,11%
6	65.18%	66.73	61.82	65.18	66.24	64.34%	66.26	61.06	65.59	67.50
7	65.11%	69.83	62.99	65.38	68.37	65.29%	67.50	64.82	64.61	67.22
8	70%	69%	69%	69%	84%	70%	69%	70%	70%	85%
9	67%	62%	68%	63%	73%	69%	64%	69%	63%	77%
1-9	66,11	63,88	66,44	66,31	77,66	67,41	65,14	67,13	66,84	79,08
LQ 45	49,58%	62,55%	71,57%	60,18%	35.3%	39,58%	62.55%	66.22%	58.73%	37.3%

By reading the differences in trading volume and, the researcher detects that Monday's volume is lower than other days, especially in sectors 1, 5, 8, and 9. Subsequently, by using data combination (and LQ 45 data), it is found that Monday volume is lower than Tuesday, Wednesday, and Thursday.From 44 tests, there were are 34 results (77%) of Monday volume lower than other days and this shows Monday trading activity has not risen. This situation does not fit the hypothesis, where after the holiday weekend, investors are usually eager to invest. From this case, more negative information takes place at the weekend, so that trade transactions have not increased. To encourage trade transactions on Monday, the researcher suggests the following steps: (i). Stakeholders (government and firm-issuers) supply positive information on the weekend; (ii). Postpone the announcement of negative information, announce it on a day other than Monday.

These results show the phenomenon of 'Black Monday', marked by lower returns and lower volumes compare to the other days, especially in sectors 1 and 9. The low return of trading volume is an interesting finding. The researcher can draw information from this finding, as follows: first, investors refrain from entering into transactions, including refraining from doing 'stop-loss'. This attitude shows investors do not do a 'selling panic' or they can accept the situation and be rational. If this is true, then the task of regulators is easier. Second, this can usually happen to stocks that are not liquid (infrequent selling). However, in this study, this notion is not proven; for example, for LQ 45 shares (the value of LQ 45 is 70% of Indonesia Stock), Monday's transaction volume was also lower than other days, except Friday.

It is interesting to test whether a high trading volume is followed by a high return? Does it happen because of rational matters or speculative motives? In daily practice, speculators (in

Indonesian terminology: Bandar) move prices (up) then sell them at higher prices. For this situation, uninformed investors who late to enter the market are known as the winner curse'.

Table 4. Differential volumeamong monday and other days on the indonesia stock exchange

Sectors	Trading Volume			
	M-T	M-W	M-Th	M-F
1	-0,00064444	-0,00057006	-0,00045930	-0,00033314
	0,009	0,004	0,041	0,121
2	-0,00024225	-0,00139239	-0,00151566	0,00044310
	0,804	0,477	0,333	0,664
3	0,00006381	0,00006152	0,00021245	0,00016043
	0,525	0,649	0,016	0,061
4	0,00001124	0,00006590	0,00001810	-0,00004285
	0,829	0,378	0,823	0,648
5	-0,00006910	-0,00014068	-0,00008674	-0,00001838
	0,054	0,10	0,147	0,691
6	-0,00049413	-0,00008160	-0,00053566	0,00019885
	0,238	0,849	0,238	0,522
7	0,00021592	-0,00014714	0,00034340	0,00017233
	0,111	0,562	0,037	0,380
8	-0,00007380	-0,00004517	-0,00003789	-0,00003719
	0,027	0,150	0,268	0,268
9	-0,00009206	-0,00021250	-0,00006651	-0,00008061
	0,252	0,032	0,517	0,360
All	-0,00006	-0,00018	-0,00006	0,00001
	0,294	0,096	0,469	0,841
LQ45	-0,00967	-0,00944	-0,00008	0,00081
	0,012	0,025	0,986	0,854

Notes: row (1) mean differential; row (2): significance (2 side)

Regarding the correlation between (ρ) return (o-c) and return (c-c), almost all are positive, except in sectors 4, 5 total, and LQ 45. This positive correlation confirms that not much information flows into the closed-market. The description of these findings is: first, only a few shares were pre-traded or traded 15 minutes earlier, where these shares belong to LQ 45. Thus in these sectors (outside of LQ 45), there is likely no information that can be immediately converted into prices. Second, the LQ 45 correlation appears to be low and even negative. This negative correlation indicates that the close price (t-1) and the open price (t) with a different sign. Open price (t) exposes variations that can show the information flow that occurs. Third, in sector 4 (miscellaneous industries consist of automotive, footwear, cables, and textiles (garments)), the correlation coefficient is low and also negative, while sector 5 (consumer goods industry) correlation coefficients are also low. This shows that these two sectors are quite sensitive to the issues that take place. Both sectors are closely related to the primary needs of the community so that investor attention is also increasing.

It indicates the closing trading situation (t-1) is equivalent to the opening (t). The surprise happens to the blue-chip group (LQ 45) and sector 4 so that investors can take potential profit in the early trading session that occurs in the blue-chip stock and sector 4. However, the results just show the flow of information for the trading session I and not for session II because of the close price (t) already reflects all the information available on that day.

Table 5. A Correlation Value Between Return (o-c) and Return(c-c)

Sektor	Monday	Tuesday	Wednesday	Thursday	Friday
1	0,871	0,532	0,907	0,953	0,919
2	0,887	0,884	0,920	0,940	0,947
3	0,846	0,830	0,735	0,822	0,778
4	0,005	-0,061	0,045	0,048	-0,001
5	0,451	0,399	0,384	0,373	0,362
6	0,872	0,762	0,782	0,861	0,784
7	0,795	0,824	0,849	0,717	0,776
8	0,711	0,767	0,836	0,879	0,801
9	0,870	0,849	0,863	0,857	0,861
1-9	0,011	-0,024	0,025	0,030	0,008
LQ 45	0,029	0,069	-0,033	0,001	-0,096

The results above show the presence of Black Monday in sectors 1 and 9, where the return and volume on Monday are lower than the other days, however, there is a positive Monday performance in sector 6. Thus, stakeholders need to pay attention to sectors 1 and 9 by supplying more and reliable information for weekend days. As for sector 6, the information dissemination can flow on the rest of the days (other than Monday). However, the probability of positive returns of over 50% happens on all days and sectors. This high positive return opportunity shows that the capital market is a reliable investment place and the 'saving stocks' program can continue to be echoed so that the community will know more about the program. This savings program can be expanded through the mutual fund exchange, besides that they will help reduce the unit lot and encourage issuers or emitter to carry out stock split so that the price becomes affordable. There is also evidence of information flow between closing prices (t-1) and opening prices (t) in sector 4 and blue-chip stocks (LQ45); there are price changes. This shows that the blue-chip and consumers area get more attention and can be used as an investment strategy.

4. Conclusions

The discussion and results above show that there was some evidence on Monday, that the return is lower than the other days. Black Monday phenomenon appeared in sectors 1 and 9, which was indicated by lower volumes and returns compared to the other days. The Indonesian Capital Market is the right place to invest because the profit opportunity is around 60% for all days. For both the LQ 45 & sector 4, information flow took place so that the open price (t) was different from the close price (t-1). The researcher suggests for further research with a special sample, such as a group of gain or loss stock, group of active stock, to find out if there are special patterns regarding this week-day anomaly.

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