The Dance of Week-End Return and Volume: A Symphony

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Abstract

Research aim: The research aims to bridge the gap in comprehending the correlation between return and trading volume through a novel method, emphasizing the weekend effect, employing categorized groups based on trading volume and returns, and comparing trading volume trends between 2018-2019 and 2020.
Method: We utilize various combinations of trading volume and return to investigate the weekend effect, conducting four distinct tests.
Finding: The results show that mostly there is no weekend effect. Thus the efficient market hypothesis applies. This result can be a reference for investment, where Friday or Monday is no different.
Theoretical contribution/Originality: The theoretical significance lies in uncovering a discernible increase in trading activity from Friday to Monday amid the COVID-19 period, particularly when there's an uptick in Friday's prices, signaling a behavior change.
Practitioner/Policy implication: The findings suggest that investors can conduct transactions effectively on both Fridays and Mondays, regardless of any significant differences in return or trading volume observed between the two days.
Research limitation: This research uses aggregate (sectoral) data, while investors invest using individual data. Thus, there may be differences between the results of this research and the results of investors' investments

Abstrak

Tujuan penelitian: Untuk menjembatani kesenjangan dalam memahami korelasi antara return dan volume perdagangan melalui metode baru, menekankan efek akhir pekan, menggunakan kelompok yang dikategorikan berdasarkan volume perdagangan dan return, dan membandingkan tren volume perdagangan antara 2018-2019 dan 2020 .
Metode: Menggunakan berbagai kombinasi volume perdagangan dan pengembalian untuk menyelidiki efek akhir pekan, dengan melakukan empat pengujian berbeda.
Temuan: Hasil penelitian menunjukkan bahwa sebagian besar tidak terdapat efek akhir pekan. Dengan demikian hipotesis pasar efisien berlaku. Hasil ini bisa menjadi acuan untuk berinvestasi, tidak terkecuali hari Jumat atau Senin.
Kontribusi teoritis/Keaslian: Signifikansi teoritis terletak pada pengungkapan peningkatan nyata dalam aktivitas perdagangan dari hari Jumat hingga Senin di tengah periode Covid-19, terutama ketika ada kenaikan harga pada hari Jumat, yang menandakan adanya perubahan perilaku.
Implikasi Praktisi/Kebijakan: Temuan ini menunjukkan bahwa investor dapat melakukan transaksi secara efektif pada hari Jumat dan Senin, terlepas dari perbedaan signifikan dalam return atau volume perdagangan yang diamati antara dua hari tersebut.
Keterbatasan penelitian: Penelitian ini menggunakan data agregat (sektoral), sedangkan investor berinvestasi menggunakan data individual. Dengan demikian, mungkin terdapat perbedaan antara hasil penelitian ini dengan hasil investasi investor

Introduction

Research on the weekend effect remains interesting because Monday phenomenon is different from other than Monday. The two-day holiday factor has a big impact on transaction decisions, so transactions on Monday are not purely caused by Friday transactions. After Friday, and with a two-day trading break, investors should have enough time to create a decision on Monday. Both Friday and Monday transactions are of particular concern because they indicate the closing and starting days.

In general, transactions can be referred to in pairs of return and trading volume, instead of return only. Pair of return and trading volume, have an impact on investors as well as the Self Regulation Organization (SRO) itself. The change in wealth is indicated by the multiplication of these two variables. Thus research on market anomalies, it is best to also refer to this pair. In previous research, it usually refers to the difference between Monday and not Monday, especially regarding returns.

With the basis of information technology that is getting faster, the changes in prices and the transactions seem to be moving continuously. For this reason, the daily trading basis can be detached from the fundamental conditions. Research regarding day-to-day transactions is important because it can reflect patterns of investor behavior. The covid-19 outbreak also adds to the importance of daily transactions. With many Work From Home (WFH) policies, a lot of time is spent on stock transactions. JCI data shows daily transactions in January 2020 ranged from Rp 8Trillion and reached Rp 32 Trillion the highest value in November 2020. In the future, even if Covid passes, technological advances will cause daily transactions to increase. For this matter, any research regarding investor behavior and the microstructure will have a positive impact to explain the stock trading situation.

We examine the Volume-Return relationship for Friday-Monday as interesting or more important than just one of them. We investigated whether there was an anomaly for this relation. We created groups and compared them between Monday and Friday. We call this the novelty of this research. This study uses new data, namely 2018-2019 and 2020 data as a comparison, to show the covid-19 situation. This study aims: is there a difference in Trading Volume and Return on Friday-Monday, on various TV groups and the Return itself?. We divide Trading Volume and Return into two groups, namely the lowest and highest; and we made 8 comparisons of these groups. The results of this difference test can be an answer to whether there is a difference between Friday and Monday (weekend effect) for Return-Trading Volume. In our opinion, this result is stronger, compared to testing with all the Friday-Monday data. This is because the data is selected in the extreme (lowest-highest) situation. We use 12 indices data (complete) so that the expected conclusions are also met. The results showed that there was no relationship between Monday-Friday, either for trading volume or return. The results show the anomaly weekend doesn't exist.

This research has several contributions. First, strengthen research results regarding the weekend effect, and the use of data in the Covid era. Second, The research emphasizes the relationship of Trading-Volume (TV) and Return, where this becomes important in the capital market. Research regarding TV-Return is very necessary because it has a broad impact on stakeholders. The research results are weekend effect doesn't exist give several the implication for stakeholders. The no two-day holiday impact can be used as a basis for transactions for investors or policy by regulators.

Statement of Problem

Several studies refer to the relationship between days, either for returns and/or trading volume, where there is no definite pattern found. [1], on the Egyptian Exchange (EGX), test price anomalies using various holidays (Islamic, Secular, and Christian holidays). They find, for holidays there are price differences. [2] shows the highest Friday return with the lowest return variant, while Monday's return is always the lowest with the highest return variant. BD shows that there is a weekend effect. [3], shows that Friday's return is higher than other days, and Monday's return is the lowest (but positive) on the Pakistani Capital Market. This lower Monday return shows evidence that investors retain information, and do not use that information for investment (on Monday).

[4] shows, on the USA, Canada, and UK markets Monday trading volume (followed by Friday) is lower than any other day. Thus, Monday and Friday are less busy days compared to other days. An interesting question is how is the relation (price-volume) on Friday-Monday?. [5] examined the effect of Friday returns on Monday returns. Their research results, both in the small stock group and the large stock group find that if Friday-negative return will be followed by Monday-negative return. By using the association test, [6] also found that the negative-return pair (Friday-Monday) was more than the positive-return pair (Friday-Monday). Further, Asnawi et al test the influence of combination Friday-Monday returns on Monday Trading Volume. The results show that this combination does not affect the Trading Volume. Thus, a bearish situation (both negative return) and a bullish situation (both positive return) do not have a different effect on trading volume. [7] researching on the Latin America Market, found Friday returns were significantly positive and Monday returns were significantly negative. The results of this research from Winkelried & Iberico show a significant difference in returns between Friday-Monday. [8], on the Thailand market, Friday's return was the highest compared to other days; on the Malaysia Market, Monday's return to be lower compared to Friday's return. This means that the weekend effect occurs in both the Thailand and Malaysian markets. [9] found the Monday effect occurred in 6 indices in the USA. [10], in the Indian Stock Market, find both Friday (just in certain cases) and Monday have the lowest return. Especially for Monday, it also has the highest volatility. Thus the weekend effect does not occur.

[11] shows that there is no Monday effect on China Stock Exchanges (Shanghai and Shenzen). [12], examined four markets (Indonesia, Malaysia, Hong Kong, and Taiwan) concerning before and after holidays. Before the holidays, the increasing number of transactions is due to cash needs, mainly in small stocks, while after holidays there is an increase in transactions for stocks generally. This situation cannot be referred to Friday and Monday. [13] refer to anomalies in every day by referring to quality-minus-junk (QMJ) stocks. A Monday-positive premium and a Friday-negative premium were found in 4 regions in the global capital market (Europe, North America, Global excluding the US and Pacific). [14], also referring to

QMJ, find a day-of-the-week effect is exist on the two China Stock Markets. Ul Ain et al, also find a Friday negative return. This finding shows that junk stock has a higher return than quality stock, and is related to the the-mood-psychological aspect. According to Ul Ain in general, investors' mood was better on Friday. [15] also shows a 'Black Monday' which indicates a situation where on Monday the return and volume are lower than other days, occurs in the Agriculture and Trade, Service sector and Investment Industry. Monday trading volume lower than other days, about 77%. This shows Monday's 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.

Several studies have referred weekend anomalies to certain characteristics. [16], create a portfolio based on several characteristics, then link it with weekend effects. They find a negative weekend effect. This result mainly occurred in the lows group, namely: small-capital, low liquidity ratio, low PBV, low market liquidity ratio. Thus, it can be seen that low trading volume will also be followed by a fall in prices (bearish). [17] refers to the size, shows that Monday's anomaly is related to company size, where on the small size, Monday negative return is obtained, while on the large size, Monday positive return is obtained. [18] transaction shows will increase when the trade is opened and closed, so that the trading volume pattern is in the form of a U-shape, for intraday transactions. Also found Monday trading volume is higher than Friday TV. [19], on the Canadian Stock Market (S & P / TSX Composite Index) indicates the week effect exists when find Monday has the lowest mean, but the relation of risk-return doesn't exist. [20] find Monday has both high return and high risk. In the Nifty Small Cap Index group, find Friday negative-return. Paital & Panda's result contradicts existing concepts of the weekend effect.[21] emphasizes the existence of Black Friday, where Black Friday is a situation where the market return is higher than usual. The phenomenon of Friday day as the last day, causes many investors to buy shares on that day so that returns are high. In examined 2009-2018 period Black Friday effect is no longer sustainable. [22], reports positive day-of-the-week effects among small and mid-capitalization stocks, both for raw returns and for risk-adjusted returns, but finds no such effects for large-capitalization stocks on Oslo Stock Exchange. [23], researching the Norwegian Securities market (2000-2019) found daily returns are lower on Monday and higher on Friday than the other days of the week.

From the above description, the research has varied results, namely: (i) there is a weekend effect; (ii) the weekend effect does not exist; (iii) and related to the various characteristics of the issuer. The above researches do not link return-trading volume directly. We tested the week-end-effect by forming groups based on return-trading volume.

Research Objectives

The research contribution proposed here is to fill the gap among return-trading volume. We give a new way to test the relationship between trading volume-return. We examine the week-end-effect using groups based on trading volume and returns. The use of a group will provide a strong relationship between the week-end trading volume-return. We divide two periods, 2018-2019 data (main data, period I), and 2020 data (covid-19 era, period II) for comparison regarding trading-volume patterns in the two eras.

Method

Data Collection

The research population is the Indonesian Composite Index (IDC), Liquid 45 shares (LQ-45), and 10 Sectoral Index. The sampling technique used is the saturated sampling technique. We use; Composite Index (ICI), Liquid 45 shares (LQ-45), and 10 sectoral indexes. The period is divided into 2, namely 2018-2019 (Period I), and 2020 data (Covid-19 pandemic/period II). The 2020 data, at the time this research was written, was incomplete for a year (until September 2020), intended to compare the actual data for 2018-2019. Data obtained from Indonesia Stock Exchange (IDX).

Analysis

Return is measured by (open-close) return for the same day. In general, the Monday open return is the Friday close return. Trading volume uses value (IDR Trillion). Two other proxies, namely: number of traded share and frequency, are not the main references in measuring volume (liquidity). Both Friday and Monday return and trading volume data, are take the lowest 30% and the highest 30% data. We use the lowest and highest groups-data for research. We performed an Independent t-test (different test) both for return trading volume. We perform 4 different tests for return and also for volume, as follows:

Expected Return Independent-Test
1. Friday lowest return- group vs Monday lowest return group
2. Friday highest return- group vs Monday highest return group
3. *Friday highest TV-group vs Friday lowest TV-group*
4. *Monday highest TV -group vs Monday lowest TV-group*
   Trading Volume Independent-Test:
5. Friday Lowest return Group vs Monday lowest return Group
6. Friday highest return Group and Monday highest return Group
7. Friday highest return- group vs Friday lowest return group
8. Monday highest return- group vs Monday lowest return group

Results and Discussion

Independent t-Test for Return based on the return group

We conducted 4 tests regarding the difference in returns on Friday and Monday, as presented in tables (1) and (2). In the test (1), table, 1.a, on the Friday-lowest-return vs Monday-lowest-return group, it was found to be mostly significant, with Monday's returns being lower than Friday's returns, over the two test periods (2018-2019 and 2020). Thus 'a bad Monday' is worst than 'a bad Friday'. This can be a signal, if after Friday-negative return, there is bad information, and Monday will be a negative return, the bad-effect will continue. In this case, it should be noted, that the data tested did not show the Friday followed Monday, As Olson (2015) but rather the Friday-lowest-return vs Monday-lowest-return group data. The lesson to be learned is, be careful if Friday is negative (return), so if Monday is a negative return too, the potential for Monday large negative return is high odds. Investors can observe this result, by taking steps: if Friday is bearish, postpone investing for Monday, unless there is other positive information. This result is very different when compared to Winkelried & Iberico (2018), which shows positive Friday returns and negative Monday returns.

In test (2), namely the Friday-highest-return vs Monday-highest-return group (table 1.b), in period I only 4 significant sectors were found, namely: Agriculture, Mining and Miscellaneous Industry; manufacturing; whereas in period II there were 5 significant sectors in the Agriculture, Basic Industry, Consumer, Property and Trade Sectors. Only the Agriculture Sector is significant in both periods. In general, mostly insignificant, so there is no evidence of the Monday-highest-return group of the greater than Friday-highest-return. In period I, 8 out of 12 sectors had the Monday highest return higher than the Friday highest return. However, in period II, 11 of the 12 sectors had the Monday highest return lower than the Friday highest return. This reverse results of this study are interesting.

If Monday's return is positive, and higher than Friday's return, then it indicates a good situation, there is an acceleration in prices from Friday to Monday. It can actually be interpreted as good news. The situation in Covid-19 (Period II) shows a Monday positive return, but it is still lower than Friday's return. This actually shows Monday's close price is still higher than Friday's close price; because Friday's close price will be the open Monday price. Thus the covid-19 situation does not have a negative impact on week-end transactions, iff, for the highest return group. This shows that in a bullish situation, there was a price acceleration on Monday. In contrast to Asnawi et.al (2021) who found there were more negative return pairs than positive return pairs; Mitra & Khan (2014) found that Friday and Monday had the lowest returns, and there was no weekend effect.

Table 1. The Return- Different tests result: groups based on Return

Sector	Period	Lowest-E(r)Fri vs Lowest E(r)-Monday				Highest-E(r)Fri vs Highest E(r)-Monday			
		Mean (F)	Mean (M)	M-F	Sign	Mean (F)	Mean (M)	M-F	Sign
CI	2018-2019	-0.007	-0.011	-0.004	0.002*	0.008	0.009	0.001	0.241
	2020	-0.013	-0.028	-0.015	0.011**	0.019	0.013	-0.006	0.172
LQ 45	2018-2019	-0.009	-0.014	-0.005	0.008*	0.012	0.012	0.000	0.346
	2020	-0.017	-0.037	-0.020	0.013**	0.026	0.018	-0.008	0.167
Agri	2018-2019	-0.950	-1.000	-0.050	0.662	1.030	1.510	0.480	0.019**
	2020	-1.630	-3.430	-1.800	0.012**	1.300	2.530	1.230	0.024**
Basic Industry	2018-2019	-1.260	-1.760	-0.500	0.018**	1.480	1.260	-0.220	0.182
	2020	-1.810	-3.820	-2.010	0.006*	3.240	1.590	-1.650	0.097***
Consumer	2018-2019	-1.160	-1.580	-0.420	0.130	1.190	1.270	0.080	0.725
	2020	-1.500	-2.790	-1.290	0.126	2.600	1.190	-1.410	0.100***
Finance	2018-2019	-0.740	-1.240	-0.500	0.009*	1.089	1.130	0.041	0.797
	2020	-1.900	-3.190	-1.290	0.052***	2.110	1.610	-0.500	0.492
Infra-structure	2018-2019	-0.640	-0.880	-0.240	0.017**	1.330	1.570	0.240	0.251
	2020	-1.240	-3.230	-1.990	0.012**	2.840	1.600	-1.240	0.135
Manu-facture	2018-2019	-0.990	-1.490	-0.500	0.009*	1.090	1.040	-0.050	0.741
	2020	-1.510	-3.190	-1.680	0.042**	2.660	1.200	-1.460	0.044**
Mining	2018-2019	-1.200	-1.470	-0.270	0.198	1.230	1.700	0.470	0.035**
	2020	-1.030	-2.430	-1.400	0.009*	2.310	1.670	-0.640	0.101
Misc. Industry	2018-2019	-1.450	-1.870	-0.420	0.047**	1.950	1.210	-0.740	0.008*
	2020	-2.540	-4.070	-1.530	0.110	3.230	2.080	-1.150	0.231
Property	2018-2019	-1.040	-1.380	-0.340	0.007*	0.970	1.230	0.260	0.107
	2020	-1.660	0.330	1.990	0.018**	2.360	2.301	-0.059	0.957
Trade	2018-2019	-0.640	-0.880	-0.240	0.017**	0.720	0.640	-0.080	0.414
	2020	-0.900	-1.770	-0.870	0.028**	1.330	0.830	-0.500	0.085***

Source : processed data (2022)

Table 1 presents the return-difference test results for the return group. Table 1 (a) return-different test result for the lowest return group; Friday against Monday. Table 1 (b) tests of different returns for the groups of the highest returns Friday against Monday. The t-test is intended to determine whether there is a difference in return, between the lowest-return groups and between the highest-return groups. The difference in return is shown by the Monday return

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minus the Friday return. The 1%, 5%, and 10% significance levels are indicated by signs (*; **, ***).

Independent t-Test for Return based on Trading Volume group

Table 2 presents the result different test of returns for the Friday-lowest-trading-volume vs Friday-highest-trading-volume Group (2.a); and Monday-lowest-trading-volume vs Monday-highest-trading-volume Group (2.b). Table 2 (a) shows that only 2 sectors have significant differences, namely in the Mining and Miscellaneous Industry (2018-2019) and on the Composite Index only (covid-19 era). Thus both positive returns and negative returns can occur in high and low transactions. In table 2 (b) it is known that 4 sectors differ significantly, namely LQ 45, Agriculture, Mining and Property, and only in the Property Sector (period II). In general, Monday return are not different from Friday return. This indicates that high transactions are not necessarily followed by high returns, and or low-trading volume is not followed by low-returns. This situation causes the market to be unpredictable, and investors find it difficult to get abnormal profits. This shows the efficient market hypothesis exist. For Comparison with Asnawi et al (2020), which found Black Monday (low volume-return), conflicting results were found, indicating that the stock market is constantly changing, so a new balance/situation can always occur. This makes the stock market more dynamic and interesting.

Table 2. Different tests of returns between groups based on trading volume

Sector	Period	Lowest-Highest TV- Friday				Lowest-Highest TV- Monday			
		Mean (L)	Mean (H)	H-L	Sign	Mean (L)	Mean (H)	H-L	Sign
CI	2018-2019	0.001	0.001	0.000	0.31	-0.003	0.001	0.004	0.113
	2020	-0.002	0.008	0.010	0.073***	-0.012	-0.001	0.011	0.164
LQ 45	2018-2019	0.002	0.001	-0.001	0.372	-0.005	0.004	0.009	0.001*
	2020	0.003	0.013	0.010	0.129	-0.012	-0.003	0.009	0.267
Agri	2018-2019	-0.150	0.230	0.380	0.131	-0.140	0.620	0.760	0.018**
	2020	-0.540	-0.060	0.480	0.493	0.910	-0.210	-1.120	0.486
Basic Industry	2018-2019	-0.040	0.270	0.310	0.394	-0.690	-0.240	0.450	0.247
	2020	0.040	0.690	0.650	0.457	-1.860	-0.600	1.260	0.312
Consumer	2018-2019	0.140	-0.050	-0.190	0.599	-0.160	-0.280	-0.120	0.775
	2020	-0.310	1.260	1.570	0.153	-0.140	-0.460	-0.320	0.657
Finance	2018-2019	0.070	0.300	0.230	0.341	-0.080	0.030	0.110	0.730
	2020	-0.270	0.990	1.260	0.133	-0.250	-1.260	-1.010	0.363
	2018-2019	0.090	0.100	0.010	0.953	-0.020	0.240	0.260	0.502

Infra-structure	2020	0.990	0.690	-0.300	0.728	-1.780	-0.100	1.680	0.202
Manufacture	2018-2019	0.090	-0.120	-0.210	0.428	-0.260	-0.380	-0.120	0.702
	2020	0.140	0.790	0.650	0.528	-0.920	-0.760	0.160	0.898
Mining	2018-2019	-0.140	0.670	0.810	0.003*	-0.300	0.650	0.950	0.028**
	2020	0.180	0.830	0.650	0.329	-0.340	0.670	1.010	0.131
Misc. Industry	2018-2019	0.170	0.390	0.220	0.055***	-0.340	-0.600	-0.260	0.480
	2020	-1.070	0.360	1.430	0.327	-1.450	0.210	1.660	0.259
Property	2018-2019	0.040	0.070	0.030	0.928	-0.770	0.390	1.160	0.000*
	2020	-0.170	1.140	1.310	0.220	-1.190	1.120	2.310	0.053***
Trade	2018-2019	-0.100	-0.070	0.030	0.824	-0.120	0.060	0.180	0.284
	2020	-0.460	0.220	0.680	0.132	-0.680	-0.180	0.500	0.464

Source : processed data (2022)

Table 2 presents the return-difference test results based on the trading volume group. Table 2 (a) test of different returns for the lowest-highest TV group on Friday; while table 2 (b) tests for different returns for the lowest-highest TV group on Monday. This test is intended to determine whether there is a difference in return, in the highest and lowest TV groups, but on the same day. The return difference is shown by the Highest TV return minus Lowest TV. The 1%, 5%, and 10% significance levels are indicated by signs (*; **, ***).

Test for different Trading Volume based on the return group

Table 3 provides a trading volume-different test based on the lowest return groups on Friday and Monday. In general, Table 3 (a) is found only significant in the CI and LQ 45 groups (period I) and none of Index is significant in period II. The results show, Friday TV is greater than Monday's trading volume, in the lowest return group. Thus, on Monday, if you have a negative return, it will also be followed by lower trading transactions. In table 3 (b) it is found only in the Property Sector (period I) and in 3 sectors namely CI, LQ45 and Finance (in period II). Table 3 (b) also generally shows that there is no difference in TV between the groups on the highest return Friday-Monday. In general, the difference between the trading volume Monday and Friday was found to be positive at six sectors. In this case it can be concluded that the highest return group, both Friday and Monday have the same trading volume.

It is known, both when it is bearish (negative return) and when it is bullish (positive-return), then the amount of TV between Friday and Monday is no different. Hypothetically, Monday should have been different (more active) because it had more time lag. This fact shows that at the time lag, there is no important information flow, so it does not affect the transaction. There is no difference in trading volume when it is bearish or bullish, indicating a market

activity is the same level. This can indicate the market is in an efficient condition. This research is relevant when compared to Perez (2018), which states that there is no Monday Effect; and Sukor (2013), which states that the weekend effect situation is related to holidays, but not as intended by the theoretical concept.

Table 3. Different Test of Trading Volume Between Groups based on Return (IDR Billion)

Sector	Period	Lowest-E(r)Fri vs Lowest E(r)-Monday				Highest-E(r)Fri vs Highest E(r)-Monday			
		Mean (F)	Mean (M)	M-F	Sign	Mean (F)	Mean (M)	M-F	Sign
CI	2018-2019	8717	7307	-1410	0.018**	8379	10310	1931	0.170
	2020	7667	6940	-727	0.182	9627	7592	-2035	0.052***
LQ 45	2018-2019	4878	4290	-588	0.062***	4898	4545	-353	0.135
	2020	5478	5046	-432	0.243	7384	5761	-1623	0.073***
Agri	2018-2019	134	125	-9	0.572	146	164	18	0.287
	2020	90	105	15	0.612	94	126	32	0.397
Basic Industry	2018-2019	1078	743	-335	0.400	791	684	-107	0.189
	2020	568	528	-40	0.759	700	568	-132	0.346
Consumer	2018-2019	804	734	-70	0.447	693	695	2	0.969
	2020	748	706	-42	0.806	856	775	-81	0.659
Finance	2018-2019	2052	1876	-176	0.281	2892	2007	-885	0.142
	2020	2832	2596	-236	0.644	3681	2452	-1229	0.069***
Infra-structure	2018-2019	1061	984	-77	0.307	1161	1069	-92	0.490
	2020	1347	847	-500	0.125	1281	1142	-139	0.478
Manu-facture	2018-2019	2017	1873	-144	0.521	1901	1771	-130	0.301
	2020	1764	1505	-259	0.343	1784	1602	-182	0.524
Mining	2018-2019	724	699	-25	0.708	977	1054	77	0.537
	2020	660	568	-92	0.317	685	825	140	0.316
Misc. Industry	2018-2019	419	417	-2	0.966	458	380	-78	0.104
	2020	353	296	-57	0.432	467	461	-6	0.957
Property	2018-2019	1119	907	-212	0.568	791	975	184	0.009*
	2020	418	364	-54	0.457	499	573	74	0.582
Trade	2018-2019	1394	1327	-67	0.711	1311	1337	26	0.774
	2020	879	879	0	0.998	987	912	-75	0.390

Source : processed data (2022)

Table 3 presents the trading volume-difference test results based on the Return group. Table 3 (a) different test of Trading Volume for the lowest-return group between Friday and Monday; while table 3 (b) the different test of trading volume for the group of the highest return between Friday and Monday. This test is intended to determine whether there is a difference in TV, in the lowest return group (Friday and Monday) and the highest return group (Friday and Monday). The difference in TV is shown by Monday TV minus Friday TV. The 1%, 5%, and 10% significance levels are indicated by signs (*; **, ***).

3.1. Test for different Trading Volume based on the return group

In table 4, the TV difference test is given based on the highest-lowest Return group for the same day. For Friday (table 4.a), most of it was found to be insignificant, except for the Mining Sector (period I) and the ICI and LQ 45 sectors (period II). Meanwhile, on Monday, most of them are insignificant, except for the IC and Agriculture Sector (period I) and the Infrastructure, Mining and Property Sectors (period II). The TV mean (table 4.a) of the Friday Highest Return-group was found to be greater at 6 (11) Index in period I (II), but most of them were not significant. On Friday, it seems that when the price goes up, the size of the transaction is bigger than when the price goes down. Period II seems to be more active than period I. This could be due to a pandemic situation, where many new investors have stated to enter the capital market.

For Monday (table 4.b), it was found that TV was significantly different only in the CI and Agriculture sectors (period I) and Infrastructure, Mining and Property Sectors (period II). Although many coefficient are insignificant, in general the highest return group had higher TV, and especially in period II, it was found in 11 sectors, except the Finance sector.

From the above description, in general, there is no difference in return and trading volume on Friday and Monday. This indicates that there is no week-end effect. No visible anomaly on Monday, this could be a signal: (i) the two-day holiday has no additional information; (ii) Monday as a normal day, as any other day. Thus, it can be stated that the capital market in Indonesia is an efficient market. This result contradicts various studies which have found a weekend effect, so that the market can be declared inefficient, for example, Delfino (2019) which links the weekend effect to various fundamental variables; Sharif (2019) which relates the weekend effect to size; and also Giudici & Hu (2019), which uses microstructure data.

Table 4. Different Test of Trading Volume Between Groups based on Return (IDR Billion)

Sector	Period	Lowest-E(r) vs Highest E(r)-Friday				Lowest-E(r) vs Highest E(r)-Monday			
		Mean (L)	Mean (H)	H-L	Sign	Mean (L)	Mean (H)	H-L	Sign
CI	2018-2019	8717	8379	-338	0.315	7307	10310	3003	0.069***
	2020	7667	9627	1960	0.034**	6940	7592	652	0.261
LQ 45	2018-2019	4878	4898	20	0.480	4290	4545	255	0.187
	2020	5478	7384	1906	0.002*	5046	5761	715	0.205
Agri	2018-2019	134	146	12	0.477	125	164	39	0.023**
	2020	90	94	4	0.867	105	126	21	0.613
Basic Industry	2018-2019	1078	791	-287	0.440	743	684	-59	0.719
	2020	568	700	132	0.319	528	568	40	0.771
Consumer	2018-2019	804	693	-111	0.160	734	695	-39	0.627
	2020	748	856	108	0.509	706	775	69	0.713
Finance	2018-2019	2052	2892	840	0.164	1876	2007	131	0.395
	2020	2832	3681	849	0.235	2596	2452	-144	0.738
Infra-structure	2018-2019	1061	1161	100	0.456	984	1069	85	0.248
	2020	1347	1281	-66	0.846	847	1142	295	0.056***
Manufacture	2018-2019	2017	1901	-116	0.505	1873	1771	-102	0.591
	2020	1764	1784	20	0.941	1505	1602	97	0.735
Mining	2018-2019	724	977	253	0.002*	699	1054	355	0.004*
	2020	660	685	25	0.818	568	825	257	0.048**
Misc. Industry	2018-2019	419	458	39	0.396	417	380	-37	0.451
	2020	353	467	114	0.223	296	461	165	0.115
Property	2018-2019	1119	791	-328	0.308	907	975	68	0.734
	2020	418	499	81	0.407	364	573	209	0.081***
Trade	2018-2019	1394	1311	-83	0.556	1327	1337	10	0.944
	2020	879	987	108	0.255	879	912	33	0.779

Source : processed data (2022)

Table 4 presents the trading volume-difference test results based on the Return group. Table 4 (a) different test of Trading Volume on Friday for the lowest-return and highest return groups. table 4 (b) different test of trading Volume for Monday for the lowest-return and highest return group. This test is intended to find out whether there is a difference between the TV, the

lowest return and the highest return on the same day. The difference in TV is shown by the highest return TV minus the lowest return TV. The 1%, 5%, and 10% significance levels are indicated by signs (*; **, ***).

Conclusion

The results showed as follows: on the lowest return-group test, the results were mostly significant with Monday's return being lower than Friday's return (1.a). On the contrary, the highest return gap test was found to be mostly insignificant, but Monday's return was higher than Friday's, especially in Period II. This means that during the Covid-19 period, there has been an acceleration of transactions from Friday to Monday, if the Friday price increases. On test 2; we found no difference in returns, for the lowest-vs-highest-trading-volume both Friday and Monday. In the test (3) there was no difference Trading Volume between the lowest-lowest expected return groups; highest-highest Expected-return groups, which means that the transaction can occur with the same magnitude in both a bullish (positive return) and bearish (negative return) market. In test (4) there was also no difference in Trading Volume between the lowest-highest return groups. The results of the study generally show that there is no difference in return or trading volume on Friday and Monday. For investors, this information shows that they can make transactions just as well on Friday or Monday.

We use both the lowest and the highest data samples. Research can be generalized based on other groups, for example company size, solvency, and others. This study entirely uses secondary data. Future, can be considered aspects of investors (primary data), investors' investment decisions associated with trading volume and return expectations. This can be a new domain for behavioral finance.

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