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COMPARATIVE STUDY OF WINNER AND LOSER STOCK PORTFOLIOS' PERFORMANCE IN THE MANUFACTURING SECTOR OF INDONESIA STOCK EXCHANGE

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ABSTRACT

The purpose of this study is to compare the performance of the winner and loser stock shares portfolio in the Manufacturing Sector on the IDX. Data collection method in this study uses non participant observation method. The number of samples is 134 companies with census method. Data analysis techniques used are two average difference tests. The results of this study indicate that the stock winner stock portfolio performance in the subsequent ownership period results in lower performance than the period of its formation, while the performance of the loser stock portfolio period of ownership further results in a higher performance than the formation period, but there is no significant difference between portfolio performance winner-loser stock period formation with subsequent ownership period and there is no significant difference between the stock winner stock portfolio performance and the performance of the stock portfolio of loser shares and market index in the next ownership period.

KEY WORDS

Stock portfolio, performance, public service, business.

Investors will basically take several strategies in investing in order to get the maximum return with a certain amount of investment risk. Return is the investor's advantage over the investment he made. One strategy that is usually done by investors in investing is to form a stock portfolio. Portfolios are strategies that investors make to minimize investment risk by diversifying, namely distributing capital in the form of different stocks (Hartono, 2013).

Practitioners and financial management academics are familiar with investment strategies that investors can use to form stock portfolios, namely Momentum Strategies and Contrarian Strategies. Contrarian Strategy is an investment strategy that finds reversal returns, namely the reversal of stock returns over a certain period of time. Unlike the Strategy Momentum finds continuation returns, namely stocks that have a positive return that will continue to be positive continuously for a certain period of time (Kumar, 2016).

This study examines portfolios formed from Manufacturing Sector stocks, whether there is continuation return or reversal return, so it is expected to provide information to investors in making their investment decisions. A high level of competition will make every company in the Manufacturing Sector continue to improve its performance. Fluctuations in IHSS Manufacturing companies also reflect that returns and risks if investors invest in shares of manufacturing companies will also fluctuate during 2013-2017. So, it is necessary to determine the right investment strategy for investors in investing and it is expected that the Manufacturing Sector can represent or reflect the characteristics of the capital market in Indonesia. This research period is divided into 2 parts, namely the period of portfolio formation and portfolio testing period. Establishment period or hereinafter referred to as the formation period using a span of 12 months. The testing period in this research or hereinafter referred to as the ownership period using the next 3, 6 and 12 months-time next is used to test the performance of the stock portfolio that has been formed in the formation period.

This study uses abnormal return and risk-adjusted return, namely the Sharpe Index to measure the performance of stock portfolios. Sharpe Index is right to be used to measure stock portfolios that are not well diversified, as in this study which only uses one sector, namely the Manufacturing sector.

Based on the description, the research objectives are: (1) to test the significance of the difference between the performance of the stock winner's stock portfolio and the performance of the stock portfolio of loser shares in the ownership period of the next 3, 6 and 12 months. (2) test the significance of the difference between the performance of the winner-loser stock portfolio in the formation period with the performance of the winner-loser stock portfolio in the next 3, 6 and 12 months.

LITERATURE REVIEW

Momentum investment strategy is an investment strategy that is done by buying shares that previously had good performance and selling stocks that previously had poor performance (Sharpe. Et al., 1995). This strategy makes investors look for the right momentum, namely when the price changes that occur can provide benefits for investors through the act of selling or buying shares. Various techniques for finding the right momentum in a stock portfolio can be done. Data that has occurred (ex-post data) is used to find stock movement patterns and look for a causal relationship between one event and another.

Jagadeesh and Titman (1993), researchers who popularized the momentum investment strategy, in their research stated that winner portfolios continue to outperform loser portfolios in subsequent ownership periods. Research conducted in 1965-1989 found that the Momentum Strategy was profitable and produced significant abnormal returns along the medium-term investment horizon of 3 to 12 months. Sehgal and Sakshi Jain (2011) conducted research in the Bombay Stock Exchange on momentum strategies at the sectoral level, found that the momentum strategy is very appropriate to be implemented in India where the winner's stock portfolio produces higher average returns than the loser stock portfolio. The same thing then Dhankar and Supriya (2015), found that the application of the long-term Momentum Strategy is more profitable on the Indian Stock Market. The winner's stock portfolio performance is above the loser stock portfolio, and shows a significant difference.

Bettman, et al. (2010) investigated momentum investment strategies in the Australian Equity Market during the period 1996-2008. The results of his research found that the investment strategy momentum benefits the more liquid stocks on the Australian Stock Market, where the winner's stock portfolio continues to outperform the loser stock portfolio. Furthermore Balakrishnan (2015) in his study which tested Momentum Strategy in 3 time windows, namely 3, 6 and 12 months on the Bombay Stock Exchange, it was found that the momentum strategy gains with a time window of 6 and 12 months together gave an average return rate high because the winner's portfolio gives a monthly yield of 3.3%.

Hypotheses:

H1: There is a significant difference between the performance of the winner's stock portfolio and the performance of the loser's stock portfolio in the next ownership period.

H2: There is a significant difference between the winner-loser stock portfolio performance in the formation period and the winner-loser stock portfolio performance in the next ownership period.

METHODS OF RESEARCH

The variable in this study is the performance of winner and loser stock portfolio as measured by abnormal return and risk adjusted return (Sharpe Index). Stock stock portfolio performance is the performance of the stock portfolio formed from winner and loser shares in the Manufacturing Sector on the Stock Exchange during the period 2013-2017 with two methods, namely: Abnormal Return Method, where winner-loser portfolio abnormal return measurements are carried out using market adjusted models (Market-Adjusted Model). The second method used in this study is the winner-loser risk-adjusted return portfolio which is a measurement of the performance of the stock portfolio that has included risk factors, in this study using the Sharpe Index winner stock portfolio and loser stock portfolio in the

Manufacturing Sector on the Stock Exchange during the period of 2013- 2017. The Sharpe Index is used to measure a portfolio that is not well diversified, in accordance with this study which only uses one sector, namely the Manufacturing Sector.

Research hypothesis testing is done using two different test analysis techniques on average with the help of SPSS 22.0 for Windows program. The independent t-test analysis technique used in this study is to examine the significance of the difference in the performance of the stock winner's stock portfolio with the performance of the loser's stock portfolio in the subsequent ownership period, while the paired samples test is used to test the significance of the difference. The test results will be significant if the value of Sig. (2-tailed) <0.05, otherwise the test results are not significant if the value of Sig. (2-tailed) > 0.05.

The population in this study is the Manufacturing Sector listed on the Indonesia Stock Exchange in 2013-2017, namely as many as 134 companies, consisting of 56 companies in the Basic and Chemical Industry sub-sector, 41 companies in the Multifarious Industry sub-sector and 37 Consumer Goods sub-sector companies. Determination of the sample used using the census method by using the entire population.

RESULTS OF STUDY

The results of testing the performance of winner and loser stock portfolios can be seen in Table 1 and Table 2 which shows that, the significance value of winner with loser stock portfolio performance is measured by abnormal return and index sharpe. Stock portfolio performance in the formation period of 0.005 as measured by abnormal returns and 0.015 as measured by the Sharpe Index. The significance value is lower than alpha 0.05 which means that the winner's stock portfolio with the performance of the loser stock portfolio period formation produces a significant difference. The significance value of the winner's stock portfolio performance with the following ownership period 3, 6 and 12 months is 0.107, 0.133 and 0.199 as measured by abnormal returns as well as 0.294, 0.272 and 0.147 as measured by the Sharpe Index. The significance value is higher than alpha 0.05, which means that there is no significant difference between the performance of the stock winner's stock portfolio and the performance of the loser stock portfolio for the next 3, 6 and 12 months.

Table 1 – T-test Abnormal Return Portfolio Winner and Abnormal Return Portfolio Loser Result

Portfolio	Formation period	Period of ownership		
		3 months	6 months	12 months
Winner	0.093	0.001	-0.007	0.037
	0.477	0.768	0.370	0.339
	0.482	0.445	0.252	0.122
	0.316	0.149	0.061	0.031
Loser	-0.057	-0.049	-0.035	0.038
	-0.074	-0.043	-0.016	-0.020
	-0.059	0.106	0.087	0.079
	-0.038	0.034	0.011	-0.003
Sig	0.005	0.107	0.133	0.199

Source: Primary data, 2018.

Table 2 – T-test of Portfolio Winner and Portfolio Loser Result

Portfolio	Formation period	Period of ownership		
		3 months	6 months	12 months
Winner	0.392	-0.635	-1.094	-0.127
	0.543	0.349	0.289	0.305
	0.470	0.253	0.257	0.177
	0.715	0.361	0.219	0.028
Loser	-1.684	-0.975	-1.521	-0.123
	-2.078	-1.097	-1.177	-2.263
	-7.400	0.283	0.313	0.206
	-6.092	0.126	-0.492	-1.235
Sig	0.015	0.294	0.272	0.147

Source: Primary data, 2018.

Table 3 and Table 4 present the results of t-test winner-loser stock portfolio performance as measured by abnormal return and Sharpe Index.

Table 3 – T-Test Abnormal Return Portfolio Winner-Loser Formation Period and Ownership Periods 3, 6 and 12 Months Next Year 2013-2017

No	Period of ownership	Portfolio			
		Winner		Loser	
		Beda	Sig	Beda	Sig
1	3 months	-0.001	0.991	0.069	0.140
2	6 months	-0.173	0.024	0.068	0.083
3	12 months	-0.210	0.056	0.080	0.039

Source: Primary data, 2018.

Table 3 shows the insignificant negative value of the stock winner's stock portfolio performance as measured by abnormal return of ownership periods 3 and 12 months for 0.991 and 0.056 higher than alpha 0.05, while for ownership of 6 months the significance value is 0.024, lower from alpha 0.05 shows a significant negative value. The loser stock portfolio for ownership periods 3 and 6 months later has a non-significant positive value of 0.140 and 0.083, higher than alpha 0.05, while for the ownership period of the next 12 months shows a significant positive value of 0.039 lower than alpha 0.05.

Table 4 – T-Test Sharpe Winner-Loser Portfolio 12 Months Formation Period with Next 3, 6 and 12 Months Ownership Period 2013-2017

No	Period of ownership	Portfolio			
		Winner		Loser	
		Beda	Sig	Beda	Sig
1	3 months	-0.448	0.107	3.898	0.117
2	6 months	-0.612	0.132	3.594	0.144
3	12 months	-0.434	0.025	3.460	0.140

Source: Primary Data, 2018.

Table 5 – Significant Testing Result of Abnormal Winner's Stock Portfolio Return, Loser Stock Portfolio and Market Index (CSPI)

Portfolio	Formation period	Period of ownership		
		3 months	6 months	12 months
Winner	0.093	0.001	-0.007	0.037
	0.477	0.768	0.370	0.339
	0.482	0.445	0.252	0.122
	0.316	0.149	0.061	0.031
Loser	-0.057	-0.049	-0.035	0.038
	-0.074	-0.043	-0.016	-0.020
	-0.059	0.106	0.087	0.079
	-0.038	0.034	0.011	-0.003
IHSG	0.000	0.031	0.024	0.015
	0.015	-0.012	-0.015	-0.010
	-0.010	0.016	0.021	0.012
	0.012	0.024	0.017	0.017
Sig	0.001	0.073	0.102	0.146

Source: Primary Data, 2018.

Table 4 shows the insignificant negative value of the winner's stock portfolio performance as measured by the Sharpe Index for the next 3 and 6 months ownership period of 0.107 and 0.132 higher than alpha 0.05, while for the next 12 months ownership the significance value is 0.025, lower than alpha 0.05 shows a significant negative value. The performance of the loser stock portfolio for the ownership periods 3 and 6 and 12 months later has a non-significant positive value of 0.117, 0.144 and 0.140, higher than alpha 0.05.

Table 5 and Table 6 present, the significance value of winner stock portfolio performance and the performance of loser stock portfolios with market indices measured by abnormal return and Sharpe Index. Table 5 shows that stock portfolio performance as measured by abnormal return formation period is 0.001, lower than alpha 0.05, which means that the performance of the winner stock portfolio and the performance of the loser stock portfolio with the market period formation index produces a significant difference. The significance value of the performance of the winner stock share portfolio and the performance of the loser stock portfolio with the market index of ownership periods of 3, 6 and 12 months is 0.073, 0.102 and 0.146; higher than alpha 0.05, which means that there is no significant difference between the performance of the winner portfolio stock shares and loser shares with the market index of ownership periods of 3, 6 and 12 months which is measured by abnormal returns.

Table 6 – Significant Testing Result Sharpe Winner Portfolio Index, Loser Stock Portfolio and Market Index (CSPI)

Portfolio	Formation period	Period of ownership		
		3 months	6 months	12 months
Winner	0.392	-0.635	-1.094	-0.127
	0.543	0.349	0.289	0.305
	0.470	0.253	0.257	0.177
	0.715	0.361	0.219	0.028
Loser	-1.684	-0.975	-1.521	-0.123
	-2.078	-1.097	-1.177	-2.263
	-7.400	0.283	0.313	0.206
	-6.092	0.126	-0.492	-1.235
IHSG	0.000	0.031	0.024	0.015
	0.015	-0.012	-0.015	-0.010
	-0.010	0.016	0.021	0.012
	0.012	0.024	0.017	0.017
Sig	0.005	0.355	0.235	0.133

Source: Primary Data, 2018.

Table 6 presents that, the significance value of the winner stock portfolio performance and the performance of the loser stock portfolio with the market index. The stock portfolio performance in the formation period was 0.005, lower than alpha 0.05, which means that the performance of the winner stock portfolio and loser stock portfolio with the market period index produced a significant difference. The significance value of stock winner stock portfolio performance of loser stock portfolio and market index of ownership periods for the next 3, 6 and 12 months is 0.355, 0.235 and 0.133; higher than alpha 0.05, which means that there is no significant difference between stock winner portfolio loser stock portfolio and market index ownership period 3, 6 and 12 months as measured by the Sharpe Index

This study found that the winner's stock portfolio produced lower performance in the ownership period of 3, 6 and 12 months later, while the loser stock portfolio actually increased in the ownership period of 3, 6 and 12 months later. The findings of this study reflect that the existence of the Momentum Investment Strategy is not found in the Manufacturing Sector in the Indonesia Stock Exchange during the period 2013-2017, research that is in line with the results of this study, among others research conducted by Wiksuana (2009) which states that the results of the formation period with the ownership period the winner-loser portfolio experiences a reversal or reversal.

There are several studies that found similar results including: Wiksuana (2009), Alper and Ebru Aydogan (2017), Chen, et al. (2010), Longshi, et al. (2015), Dapaah, et al. (2010), Filbeck et al. (2013), Chui, et al. (2010), Gunarsa and Ekayani (2011), Suarmanayasa and Susila (2012), and Swandewi and Mertha (2013). Other studies that are not in line with the results of testing hypothesis 1 in this study, include research conducted by Shan Hu and Yue Chin Chen (2011), Pyo and Yong Jae Shin (2013), Leivo (2012), Dhankar and Supriya

(2017), Yu (2012), Sehgal and Sakshi Jain (2011), Cheng, et al. (2010), and Bettman, et al. (2010).

Based on the t test on the differences in the performance of the winner and loser shares' stock portfolios in the ownership period of 3, 6 and 12 months, it was found that there was no significant difference between the stock winner's stock portfolio performance and the stock portfolio performance of loser shares in the ownership period of 3, 6 and 12 months. The findings of this study reflect that the performance of stock winner stock portfolios is not different from the performance of the loser stock portfolio significantly, so it can be said that there was no overreaction of investors during the study period. This research was supported by research by Yulianawati (2003) and Sasmikadewi (2017).

The findings of this study also show that there is no significant difference between the performances of the winner-loser stock portfolio in the formation period with the winner-loser stock portfolio performance in the next ownership period. The findings of this study also reflect that there was no overreaction of investors in the manufacturing sector during the period 2013-2017. The results of this study are supported by the research of Sasmikadewi (2017) and the research of Maharani and Witiastuti (2015), but contrary to research conducted by Shan Hu and Chin Chen (2011), Zoglami (2011), Berh et al. (2012) and Yunita (2012).

CONCLUSION AND SUGESTIONS

Based on the results of the analysis that has been carried out, it can be concluded that the performance of the winner's stock portfolio in the ownership period of 3, 6 and 12 months results in lower performance, while the performance of loser stock portfolio ownership periods of 3, 6 and 12 months results in higher performance. There is no significant difference between the performance of the winner's stock portfolio and the performance of the loser stock portfolio in the ownership period of the next 3, 6 and 12 months, and there is no significant difference between the performance of the winner's stock portfolio and the performance of the loser stock portfolio and Market Index in ownership period 3, 6 and 12 months later.

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