

Analysis of Mutual Fund's Performance and Persistence in Indonesia

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Abstract: *The performance of actively managed mutual fund is largely dependent upon the investment decision of the fund managers amongst the other factors. This study examines the determinants of mutual fund performance in one of the emerging markets (Indonesia), with an emphasis on the factor of ability of investment manager. This study offers new insights into the Indonesian mutual fund industry. The results regarding the determinants examined (total risk, systematic risk, fund age, size, stock selection, market timing and expenses ratio) show significant relation between total risk, fund age, stock selection, market timing, and fund performance. While no significant relation found between systematic risk and fund size, and the fund performance. For the common investor who wanted to invest in Mutual Funds in an emerging market like Indonesia's market during the period 1/ 1/ 2008 - 31/ 3/ 2011, the selection criteria that could had provided the best results in selecting the fund were: fund with low total risk, old fund, no timing ability for manager, stock selection ability, and low expenses ratio. In contrast, size of the fund and its systematic risk appeared to be statistically irrelevant in this study. These selection criteria influence the performance of mutual funds in one of the emerging markets. The result of having a relation between total risk, market timing ability and fund performance in an emerging market clearly warrant future studies.*

Keyword: Equity Mutual Funds, Performance

1. Introduction

Indonesia's equity mutual fund's Net Asset Value (NAV) grows up to 53% for period January-May 2009. NAV growth outperformed Jakarta Composite Index (JCI) in 2009. Jakarta Composite Index (JCI) value during the period January to May 2009 only increased 33.36%, while NAV grows 53%. At the end of 2010, the NAV of mutual funds reached IDR. 116 Trillion. In late January 2011, the value of mutual funds reached IDR. 143 Trillion. In 2009, without any new purchases occurred in IDX, the Jakarta Composite Index was rising to 87%. In 2010 about 32% of all mutual funds operated were equity mutual funds.

Mutual funds investor in Indonesia is still below 100, 000 investors. The number is still very small compared to total Indonesia's population, which is 238 million, so it isn't not reach 1%. The number of mutual funds investors compared to bank customers is still very small. The amount of funds invested in mutual funds of IDR. 150 trillion. The number of third-party funds in the bank has reached IDR.2000 trillion. The amount of funding is still below 10% of it. The small number of mutual funds investors is not the motivation of saving shift to motivate investment.

Peterson et al (2001) revealed the characteristics of mutual funds provide clues for potential investors in determining the factors that affect performance. Performance of mutual funds is the primary consideration for investor in determining investment decisions. The performance of mutual funds is influenced by many factors, known as mutual funds characteristics. Characteristics that affect the performance of mutual funds can be divided into three factors. The factors are (1) investment manager, such as gender, experience, graduates and others. (2). Mutual funds factors, such as age mutual funds, fund size, types of mutual funds, mutual goals and so on. (3) Factors behavior of investors.

The Characteristics can be described as Figure 1 below:

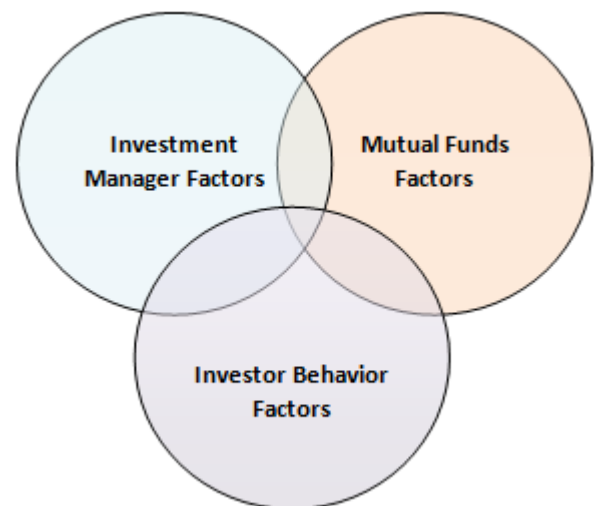


Figure 1: The Influence Factors of Mutual Funds Performance

Based on the background above, the main questions of the research can be formulated as follows:

- (1) How are the impacts of Total Risk, Systematic Risk, Expense Ratio, Fund Size, fund Age, Stock Selection and Market Timing on equity mutual funds performance period of 2008 - 2011.
- (2) Which is the dominant factor that affects mutual fund's performance.

2. Methodology

The Sample are 37 (thirty seven) mutual funds from 74 equity mutual funds in March 2011. The samples in this study are a mutual fund that had been published in January 2008 and is still operating in March 2011.

The Size of equity mutual funds in Indonesia is shown as below:

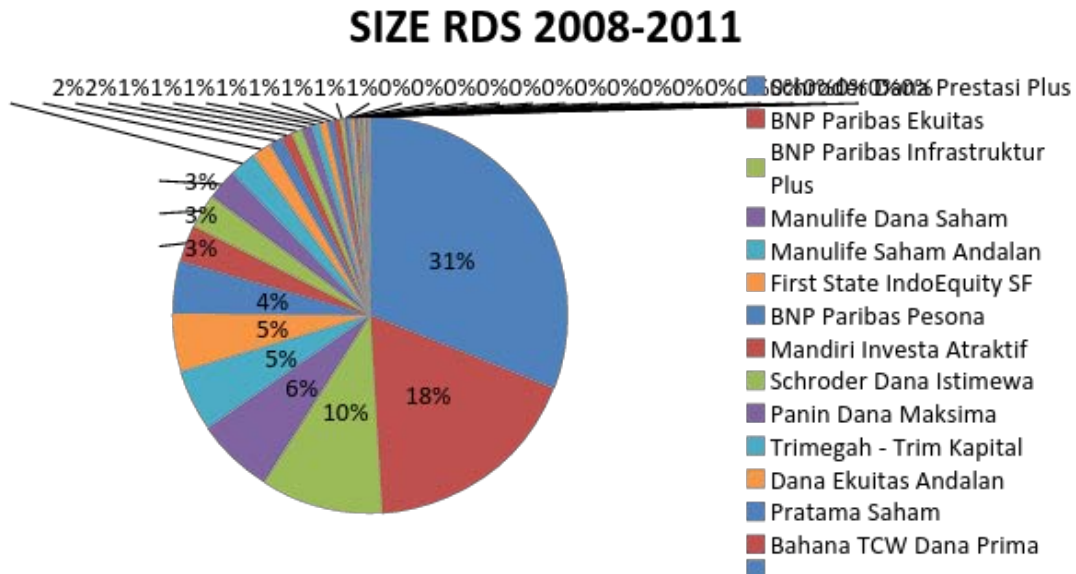


Figure 2: The Size of Equity Fund in Indonesia during the Year 2008-2011

Indonesian fund size until 2011 was dominated by 3 Big Equity Funds. Schroder Dana Prestasi Plus 31%, BNP Paribas Ekuitas 18% and BNP Paribas Infrastruktur Plus 10%.

Research data sampling process is purposive random sampling which are 37 (thirty seven) equity mutual funds. The sample in this study is the equity mutual funds that have been issued in January 2008 and is still in operation in March 2011. If the equity funds do not meet these requirements, then the mutual fund shares cannot be used as a sample. The number of mutual fund shares is recorded until by March 2011 is as much as 74 mutual funds.

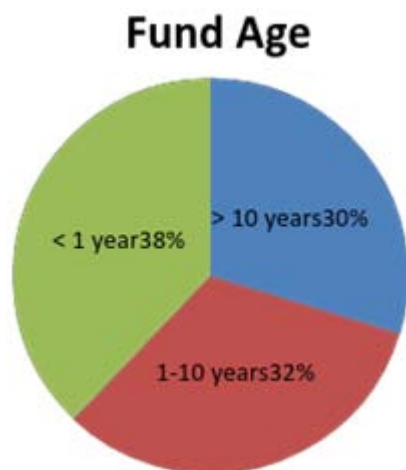


Figure 3: Age of Equity Fund in Indonesia during the Year 2008-2011

Comparing with the hypothesis that has been compiled, the results are returned to the research that has been done by other researchers. The aim of this research is to strengthen the results of calculations performed. With the results of other researchers, it is hoped that the research will have a solid foundation.

Table 1: Comparing Hypothesis

Previous Research (Researches)	Conclusion	Hypothesis	Findings	
Azmi (2006)	Consistent	(-)	(-)	Total Risk
Azmi (2006), Malkiel et al (1995)	Consistent	(-)	(-)	Beta
Volkman et al (1995), Carhart (1997)	Consistent	(-)	(-)	Fund Size
Rao (2000)	Consistent	(+)	(+)	Fund Age
-	Consistent	(+)	(+)	Stock Selection
-	Not consistent	(+)	(-)	Market Timing
Sharpe (1966), Grinblatt dan Titman (1993), Malkiel(1995), Indro et al (1999) dan Azmi (2006).	Consistent	(-)	(-)	Expense Ratio

3. Results

Descriptive Statistic Results

Total Risk for the largest equity fund is First State Sectoral Fund, while the of the smallest total risk mutual fund Panin Dana Maksima. When compared to the size of the average performance of the same amount for each equity fund during the study period, it is more advantageous to choose a mutual fund with low total risk.

Fund Size, Little mutual funds have flexibility than large funds. In Indonesia, as emerging market, equity funds dominated by three large companies. The proportion of mutual funds sampled in this study is dominated by three equity funds. Schroder Fund Performance Plus, Pribas BNP, BNP Paribas Equity and Infrastructure Plus are dominated by up to 59% of the total size of equity mutual fund. Investors in the Indonesian mutual fund industry which has limited liquidity, tend to select mutual funds with small size due to the high degree of flexibility.

Fund Age, Old age of the mutual fund investment managers can demonstrate experience in managing mutual funds. Age mutual funds are not linearly related to its performance. There are seven equity funds that have a size exceeding Rp. 1 Trillion, of which 62% are Schroder Achievement Plus Fund and BNP Paribas Equity. Both of these funds are mutual funds that owned foreign Investment Manager has many branches all over the world. Novice investors tend to prefer mutual funds mutual funds that have experience indicated by age.

Stock Selection is an important step for the investment manager in the investment decision-making process. Indonesian mutual fund industry is an emerging market which puts stock selection as the primary consideration when investors will invest in mutual funds. Equity Mutual funds are to be sampled in this study, there has been a stock selection as much as 89%, while the rest of the stock-selection or is still not appropriate in stock selection.

Market timing, in practice market timing is a technical factor which is used as a basis for decision making by the Investment Manager. The evident of market timing that reaches 97%.

Expense Ratio Expense ratio has a difference value of 2.97. It is not too big because the expense ratio for equity mutual funds in Indonesia has determined its value and considered by an investment manager if you want to increase the size. Indonesian mutual fund investors as emerging markets are still concerned about the cost factor in investing.

To answer all the issues contained in the problem formulation are used econometric methods to estimate the fixed effect econometric model as follows:

The results of the regression can be shown by Table 2 the following:

Table 2: Regression

Prob.	t-Statistic	Coefficient	
**	-2.059635	-0.009723	Total Risk
NS	-0.007762	-0.000106	Beta
NS	-0.268499	-0.002586	LNSize
**	2.340635	0.024710	LNAge
***	16.04691	0.154144	Stock Selection
***	-27.61387	-0.261749	Market Timing
***	-3.298678	-0.011836	Expense
		0.508067	R²
		0.492947	Adjusted R²
		33.60196	F Statistic
		1.948861	Durbin Watson Stat

Information

: * Significant at a = 10%

** Significant at a = 5% *** Significant at a = 1%

NS = non significant

So that the model will be tested in this study are as follows:

Beta and fund size, the results are not in accordance with the hypothesis, because according to the results of the test panel, the results are not significant. Previous studies that have similar results, for example Azmi (2006) found no effect of systematic risk to its performance in the Egyptian market and Malkiel et al (1995). To fund size, there are some researchers who have similar outcomes for instance Volkman et al (1995), Carhart (1997).

Model for this research is shown as below:

$$SI_t = \beta_0 + \beta_1(\text{total})_{it} + \beta_2(\text{beta})_{it} + \beta_3(\text{LNsize})_{it} + \beta_4(\text{LNage})_{it} + \beta_5D_1(\text{stock})_{it} + \beta_6D_2(\text{market})_{it} + \beta_7(\text{expense})_{it} + \epsilon_{it}$$

Where:

: Sharpe Index	SI _{it}
: Intercept	β ₀
: Deviation Standard	Total _{it}
: Beta	Systematic _{it}
: Log Age	LNAge _{it}
: Log Fund Size	LNSize _{it}
: Stock Selection Dummy, which 1= Stock Selection; 0 = no Stock Selection	Stock _{it}
: Market Timing Dummy, which 1= Market Timing; 0 = no Market Timing	Market _{it}
: Rasio Biaya	Expense _{it}
: error	ε _{it}

$$SI_t = 0.128518 - 0.009723(\text{Total}) - 0.000106 (\text{Beta}) - 0.002586 (\text{Age}) + 0.024710 (\text{Size}) + 0.154144 (\text{DStock}) - 0.261749 (\text{DMarket}) - 0.011836 (\text{Expense}) + \epsilon_{it}$$

The assessment of the coefficient of determination (R²)

This test saw the value of the coefficient of determination (R²) of the equation. The R² in the regression equation model of this study was 0.508067, means that 50.80% Sharpe variables can be explained by the determinant variables in the model, while the remaining 49.20% is explained by other variables that exist outside the model.

Table 3: Dominant Variable

<i>Prob</i>	<i>t-Stat</i>	<i>Std. Error</i>	<i>Coefficient</i>	<i>Variable</i>
0.0000	16.04691	0.009606	0.154144	SS?
0.0194	2.340635	0.010557	0.02471	LNAGE?
0.9938	-0.00776	0.013697	-0.00011	BETA?
0.0396	-2.05964	0.004721	-0.00972	SD?
0.0000	-27.6139	0.009479	-0.26175	MT?
0.6136	0.505117	0.254431	0.128518	C
0.7884	-0.2685	0.009633	-0.00259	LNSIZE?

From the data above, it indicated that the performance are affected predominantly by the value of Market Timing, Stock Selection and followed by the value of fund Age.

4. Conclusion

The value of mutual fund characteristics influence on the performance of mutual funds is dominated by the factor market timing, stock selection, fund age, total risk and expense ratio. Effect of time of research which uses 2008 data, also influence the direction of its performance characteristics impact variables. Market timing and stock selection expertise which is the determinant factor of the investment manager, describe a significant influence on the performance of mutual funds.

In practice, market timing is not an important factor that made by investment managers in determining their mutual fund products. This is reflected in the negative direction of this variable. While stock selection is an important factor in selecting an investment manager for mutual funds in Indonesia.

This also applies to the mutual fund industry in other countries in the emerging markets. Fund age is another factor to be considered investors when investing in mutual funds. This factor describes the experience in managing a mutual fund manager.

Mutual funds are managed by experienced managers of Schroder or Panin as a benchmark for investors when investing in mutual funds in Indonesia. Even Indonesian investors, fund managers willing to participate in mutual funds that generate new products, if the investor has to know the performance of the manager. Total risk is low will result in a high performance of mutual funds.

In 2008 data due to the inclusion of a condition in which the mutual fund is experiencing a crisis, it also illustrates that mutual fund investors in emerging market risk-averse when investing in mutual funds.

Expense ratio also illustrates the negative value, which illustrates the performance of mutual funds was partly caused by the high and low costs to be paid by the investor.

References

- [1] Azmi, R (2006) "Mutual Funds Performance: Does Gender Matter in an Emerging Market"
- [2] Christensen, M (2005). Danish Mutual Fund Performance: Selectivity, Market Timing and Persistence. Department of Accounting, Finance and Logistics. Aarhus School of Business.
- [3] Elton, E.J. and Gruber, M (2003) Modern Portfolio Theory and Investment Analysis, 6th Edition, John Wiley & Son, Inc.
- [4] Grinblatt, M and Titman, S. (1989)"Mutual Fund Performance: An Analysis Of Quarterly Portfolio Holding", Journal Of Business Vol.62 No.3, pp.393-416
- [5] Hendriksson, and Merton (1981) "On Market Timing and Investment Performance: Statistical Procedures for Evaluating Forecasting Skills, Journal of Business"; vol. 54, pp. 513-533.
- [6] Indro, D.C. Jiang, C.X., Hu.M, Lee.W.Y, Mutual Fund Performance: Does Size Matter?, Financial Analysis Journal, Vol.55 No.3 pp.74-87.
- [7] Ippolito, R.A. (1989),"Efficiency With Costly Information: A Study Of Mutual Fund Performance", Quarterly Journal of Economics, Vol. 104, pp.1-23
- [8] Israelsen, C. (1998), "Characteristic Of Winning Mutual Funds", Journal of Financial Planning, vol 11 No.2, pp 78-88
- [9] Jensen, M (1968), "The Performance of Mutual Funds in the Period 1945-1964", the Journal of Finance, Vol.23, pp.389-416
- [10] Kon, S (1983) "The Market Timing Performance of Mutual Fund Managers", The Journal of Business, Vol 56, pp. 323-347.
- [11] Lee, C.F., Rahman, S. (1990), Market Selectivity and Mutual Fund Performance: An Empirical Investigation, The Journal of Business, Vol. 63. No.2, pp 261-278.
- [12] Lehmann, B., and Modest, D. (1987). "Mutual Fund Performance Evaluation: Comparison of Benchmarks and Benchmarks Comparison", the Journal of Finance, Vol.42, pp.233-265.
- [13] Low W S. (2005), Relation Between Fund Performance and Characteristics of Malaysian Unit Trust Fund, Singapore Management Review, Volume 32 No.1, pp. 29-43.
- [14] Niessen, A., and Ruenzi, S. (2005). "Sex Matter: Gender and Mutual Funds", Department of Corporate Finance, University of Cologne.
- [15] Peterson, J.D, Pietranico, P.A, Riepe, M. and Xu.(2001) Explaining The Performance Of Domestic Equity Mutual Fund, Journal Of Investing, 10, 81-92.
- [16] Ramasamy, B. and Yeung, M. (2003). "Evaluating Mutual Funds in Emerging Markets: Factors that Matter to Financial Advisors", The International Journal of Bank Marketing, Vol.21, pp.122-136.
- [17] Rozali, M. B, (2006), Market Timing and Security Selection Performance of Mutual Funds: Evidence From Malaysia.
- [18] Sharpe, William (1964), "Capital Asset Prices: A Theory of Market Equilibrium under Condition of Risk."Journal of Finance, pp 425-42.

- [19] Sharpe, William (1966). "Mutual Fund Performance", Journal of Business, Vol. 39, pp. 119-138.
- [20] Swinkels, L.(2008), Performance Evaluation of Polish Mutual Fund Managers, <http://ssrn.com>.
- [21] Treynor J., Mazuy K., (1966), "Can Mutual Funds Outguess The Market", Harvard Business Review, vol. 44, pp1-36

Appendix

Research Sample:

<i>Investment Manager</i>	<i>Code</i>	<i>Equity Fund</i>	<i>No</i>
Bahana TCW Investment Management	_BTDP	Bahana TCW Dana Prima	1
Batavia Prosperindo Aset Manajemen	_BDSO	Batavia Dana Saham Optimal	2
BNP Paribas Investment Partners	_BNPP	BNP Paribas Pesona	3
BNI Securities	_BNIB	BNI Berkembang	4
BNP Paribas Investment Partners	_BNPE	BNP Paribas Ekuitas	5
BNP Paribas Investment Partners	_BNPP	BNP Paribas Infrastruktur Plus	6
CIMB Principal Asset Management	_CIMB	CIMB Islamic EGS	7
Bahana TCW Investment Management	_DEPA	Dana Ekuitas Prima	8
Bahana TCW Investment Management	_DPES	Dana Pratama Ekuitas	9
Danareksa Investment Management	_DMAF	Danareksa Mawar Agresif	10
Bahana TCW Investment Management	_DEAN	Dana Ekuitas Andalan	11
First State Investment Indonesia	_FSID	First State IndoEquity DYF	12
First State Investment Indonesia	_FSIS	First State IndoEquity SF	13
Jisawi Finas Fund Management Company	_JSSM	Jisawi Saham	14
Lauthandana Investment Management	_LEQY	Lautandhana Equity	15
GMT Aset Manajemen	_GMTE	GMT Dana Ekuitas	16
Mandiri Manajemen Investasi	_MIAF	Mandiri Investa Atraktif	17
Manulife Aset Manajemen Investasi	_MDSM	Manulife Dana Saham	18
Manulife Aset Manajemen Investasi	_MSAN	Manulife Saham Andalan	19
Mega Capital Indonesia	_MDES	Mega Dana Ekuitas	20
Mega Capital Indonesia	_MDSH	Mega Dana Saham	21
NISP Securities	_NISP	NISP Indeks Saham Progresif	22
Nikko Saham Nusantara	_NSNA	Nikko Saham Nusantara	23
Pratama Capital Indonesia	_PRSM	Pratama Saham	24
Panin Sekuritas Tbk	_PDMA	Panin Dana Maksima	25
Panin Sekuritas Tbk	_PDPA	Panin Dana Prima	26
PNM Investment Management	_PNME	Reksa danaPNM Ekuitas Syariah	27
Manulife Aset Manajemen Investasi	_PDSM	Phinisi Dana Saham	28
AXA Asset Management Indonesia	_RACD	Reksa danaAXA Citra Dinamis	29
Reliance Capital Asset Management	_REFD	Reliance Equity Fund	30
Corfina Capital	_RDGP	Reksa danaGrow 2 Prosper	31
Ciptadana Asset Management	_RCNC	Rencana Cerdas	32
MNC Asset Management	_RMNS	RD MNCcapital Nusantara Saham	33
Schroder Investment Management Indonesia	_SCDI	Schroder Dana Istimewa	34
Schroder Investment Management Indonesia	_SCPP	Schroder Dana Prestasi Plus	35
Syailendra Capital	_SEOF	Syailendra Equity Opportunity F	36
Trimegah Securities	_TTKL	Trimegah - Trim Kapital	37