The Performance of Equity Funds in Developing Countries: A Case of Kenya Mutual Funds over the Period 2006 to 2009

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ABSTRACT--- *This research evaluates the performance of equity mutual funds in Kenya. The objective was to compare fund performance for the period 1st January 2006 to 31st December 2009. The research was motivated by the facts that there is hardly any research on mutual funds carried out in less developing economy such as Kenya. The target population was all mutual funds in Kenya. The research used both primary and secondary data. As a source of primary data, structured questionnaires and scheduled interview were used. The secondary data included mutual funds daily returns and annual reports for the period 2005 to 2009 so as to calculate the net asset value and also performance of mutual funds in Kenya. Performance of mutual funds was analyzed using composite performance evaluation models proposed by Sharpe (1966), Jensen (1968) and Treynor and Mazuy (1966).Over the research period, the finding was that the mutual funds did not perform better than the market on a risk- adjusted basis using various performance measures. The funds were neither preferable nor outperform the market. Further, there were no portfolio diversifications as shown by lower coefficient of determination. However, the individual funds risks were generally lower compared to that of the market as measured using standard deviations and beta. This was consistent with many other empirical findings.*

Keywords---- mutual funds, fund managers, risk, returns, and beta
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1. INTRODUCTION

Like other parts of the world's financial markets, Mutual funds in Kenya have experienced tremendous growth, both in assets value and the number of funds.Mutual funds is a type of financial intermediaries (Gordon, Sharpe, and Bailey, 2009). They obtain money from investors and use it to purchase financial assets such as stocks, bonds and money market instruments that constitute its asset mix (Chandra, 2008). Individual investors achieve many advantages by investing through mutual funds, namely the economies of the scale, diversification, liquidity and professional management.

Mutual funds, like any other financial intermediaries perform several economic functions such as risk reduction through diversifications, lower cost of contracting and processing information, professional portfolio management, liquidity, variety and payment mechanism (Fabbozi and Modigliani, 2002). A mutual fund share represents a proportionate ownership of all the underlying securities in the fund, allowing investors to spread their money over many more securities than one person could typically put together in a portfolio. A mutual fund is more diversified than a typical individual's portfolio, thereby reducing investor's comparative risk and, consequently increasing their comparative return. The amount of capital needed to obtain this diversification is too large for the average individual investor (Kohn, 2009). Besides, mutual funds can achieve economies of scale in trading and transaction costs, economies unavailable to the typical individual investor. Moreover, mutual funds allow individuals to earn a certain return without needing to constantly monitor the market (Fabbozi and Modigliani, 2002)

The number of mutual funds grew substantially in United State (US) from 1980s. At the end of 2005, the combined assets of U.S. mutual funds approached $9 trillion, up from $370 billion in 1984, while the number of individual funds grew from 1,200 to almost 9,000 over the same period (Bliss, Potter, and Schwarz, 2008). This reflects that investing public relies on non-bank financial institution and increased sophistications of investors in terms of their knowledge of and appreciation for alternatives to commercial bank services (Johnstone and Carnes 2010).

In Kenya, the mutual fund industry did not take off as early as in other developed countries. However, according to Capital market authority (CMA) investor education handbook (2010), the number of unit trust grew from virtually zero in 2001 to eleven in 2008 while the asset portfolio had grown by an average of ksh.1.9 billion annually to ksh.17.6 billion in the past 9 years.These unit trust included African Alliance unit Trust, Old Mutual Unit Trust Scheme, British American

Unit Trust Scheme, Stanbic Unit Trust Scheme, Commercial Bank of Africa unit Trust Scheme, Zimele Unit Trust Scheme, Suntra Unit Trust Scheme, Insurance Companies of East Africa (ICEA) Unit Trust Scheme, CFC Unit Trust, Dyer and Blair Unit Trust Scheme and Standard unit Trust Scheme. The number as at 2010 that wasin operation and making the necessary reporting were only eight excluding CFC unit trust, Dyer and Blair and Standard unit trust.

There were three types of unit trust in Kenya, namely Equity funds, money market and blended funds. Equity funds have an objective of maximizing returns in the long run. To achieve this, it is fully invested in shares listed on Nairobi security exchange (NSE) and selected shares in the regional market. It is diversified across all the sectors of the equity market and is suitable for investors with long-term horizon. Money market and income securities are intended for the stability of the capital. It is invested in treasury bills and short-term bonds. It is also diversified across securities and is ideal for investors with a short-term horizon. Blended fund is a blend of the two above and is intended for the stability of both capital and its growth. It is suitable for investors with medium term outlook.

Despite this sharp growth in both the number and the net asset value of unit trust in Kenya, very little academic research has been devoted to examining the performance of equity funds in Kenya.

2. 2.0 LITERATURE REVIEW

The study draws most its theories from economics. Assets or securities are priced using various models. Sharpe (1964) developed Capital asset pricing model (CAPM) in order to show the pricing of the assets (Bhalla, 2002). This model uses government Treasury bill as a proxy for risk free rate, systematic risk and a market index as returns from the market. The model is used to find the relationship between the risk of assets and its expected returns. Most of the models of performance measures are based on capital asset pricing model.

The study also uses the theory of Portfolio optimizations. It involves the selection of securities to be included in the portfolio and the determination of portfolio funds in each security (Jones, 2010). Markowitz (1952) developed the theory of portfolio analysis that provides the basis for scientific portfolio construction that result in efficient portfolio. He examines the problem of finding the portfolio with the maximum expected return for a given level of risk. That is, the combinations of risk and returns of the portfolio to predict efficient and inefficient portfolios (Varian, 1993). The goal of portfolio managers should therefore be to minimize portfolio risk for any levels of expected returns (Bhalla, 2002). His tasks therefore were to translate security performance to portfolio performance and to select efficient portfolios among large numbers that were available. The task of the individual investor was to select desirable portfolio from efficient ones based on his risk profile (Varian, 1993).

The lesson drawn from this theory is that different funds have different degrees of risks and returns due to intentional or unintentional predictions. In addition, holding mispriced securities or undiversified portfolio could lead to poor performance. Therefore, Alpha, beta and R squared that were used in performance evaluation were derived from Markowitz theory of portfolio construction.

The empirical findings on fund performance are mixed. Gruber (1996) finds using a four-factor model, that fund underperforms by 65 basis points per year. Since the average expense ratio in his sample is about 113 basis points per year, this implies that mutual funds earn positive risk-adjusted returns, but charge the investors more than the value added.

On the other hand Wermers (2000) carried out a research on mutual funds' performance in America and found that funds hold stocks that outperform by market 1.3 percent per year, but their net results underperform by one percent. Out of this 1.6 percent is due to expense and transaction costs.

Taib and Isa (2007) researched on Malaysian unit trust aggregate performance over the period 1991-2001 by employing different performance measures. Their results show that on average, the performance of Malaysian unit trust falls below market portfolio and risk free returns. However, the variance of unit trust monthly returns is less than the market. Performance by type of funds indicates that bond funds show relatively superior performance, over and above the market and equity unit trusts.

Arugaslan, Edwards and Samant (2008) used 50 US based international mutual funds to evaluated Risk-adjusted performance of international mutual funds during1994-2004.Their empirical results show that the funds with the highest average returns may lose their attractiveness to investors once the degree of risk embedded in the fund have been factored into the analysis. Conversely, some funds, whose average (unadjusted) returns do not stand out, may look very attractive once their low risk is factored into their performance.

More recently, Thanou et al (2008) researched on mutual fund evaluations during up and down market conditions in Greek equity mutual fund. Their objective was to check both risk adjusted performance and timing abilities of Greek

fund managers .They used monthly returns of 17 equity mutual funds for the period January 1997 to December 2005 by using Greece index of Athens as a benchmark. Their finding was that the mutual funds in the industry evidenced satisfactory diversifications.

Polwitoon and Tawatnuntachai (2005) used 188 US-based global bond funds that survived during the period of 1993-2003 and found that Global funds also provide incremental diversification benefits to equity fund investors.

3. 3.0 DATA AND METHODOLOGY

The monthly data pertaining to seven mutual funds for which net asset values were available over the period from 1st January 2006 to 31st December 2009 was collected from the funds database and annual reports available in the business daily newspapers and in some cases from fund managers themselves. The period was chosen because it was the period when the mutual funds in Kenya experienced rapid growth in both the number and the asset value. The Return of 20 NSE share Index was taken to serve as a benchmark for the market portfolio while 91-day Kenya Government Treasury bill was used as a proxy for risk free rates. Since the Treasury bill rate is an annualized holding period return, it is converted to 91 day rate as follows:

$$i_{T-bill}(dy)\frac{P_F - P_o}{P_F} x \frac{360}{h},$$

where:

i_{T-bill} = Annualized yield on the T-bill

P_F = price (face value) paid to the bill

P_o = Purchase price of the T-bill

h = Number of days until the T-bill matures

The monthly return for both the individual funds and the market were calculated using the following equation:

$$R_t = \frac{NAV_t - NAV_{t-1}}{NAV_t}$$

Where R_t is the monthly individual funds returns for both equity and blended, NAV_t is the succeeding net asset value of each fund while NAV_{t-1} is the proceeding net asset value for each fund.

The research used various standard performance measures namely; Sharpe, Jensen's Alpha, and Treynor Index. According to Pedersen and Satchell (2002), CAPM is used to measure performance when the mean variance distributions are symmetrical. The mean for the funds were tested using Kolmogorov-Smirnov and Q-Q plots and were found to be symmetrical. The research used the three composite models because they are an outgrowth of CAPM. Fama and Mcbeth (1973) examined three implication of CAPM namely relationship between risk and returns, beta as a measure of risk and association of higher risk to higher returns and concluded that it explains the returns well. There are also other measures like Fama and French model which the study may not use because data on book to market ratio for all funds could not be made available during the research period.   These three composite measures were determined using the following formulas:

$$R = \frac{Rp - RF}{\delta p} \tag{1}$$

$$Tp = \frac{Rp - Rf}{\beta} \tag{2}$$

$$\alpha p = Rp - Rf = \alpha p + \beta p [Rm - Rf] + \mu p \tag{3}$$

Where R_f = computed yearly average 91 day Kenya government risk free rate.

R_p=is the yearly average return for individual fund.

σ_p is the standard deviation or total risk of the individual portfolio of the fund. This measures the riskiness of the fund. Higher standard deviation relative to that of the market means higher risk.

β_p is beta and measures systematic risk only . It shows whether the fund is aggressive. A beta of greater than 1 than that of the market shows that the fund is aggressive.

R_m is the market index. The NSE 20 share index was taken as a proxy for the market portfolio. All the fund performance are compared against this index

The Sharpe measure represented by S_p in equation (1) shows whether or not the fund is preferable. The higher the value, the more the fund is preferable. Again, if the individual funds returns are higher than the market, it had outperformed the market and vice versa if it is lower than the market.

Treynor Index represented by *(Tp)* in equation (2) shows whether the funds' performance is superior or inferior to the market index on a risk adjusted basis. This model differs from Sharpe Index because Treynor Index *(Tp)* uses systematic risk instead of standard deviation (total risk) of mutual funds return.

α_p as given in equation (3) is a Jensen alpha which shows whether or not the funds outperformed the market index. This value can be either greater than or less than that of the market. If this value is greater than that of the market, it has outperformed the market while if it is less than that of the market, it has underperformed the market.

Risk is concerned with the uncertainty regarding whether the realized return will equal the expected return (Mayo, 2008). The variability of return is measured by use of standard deviation (δp) while volatility is measured using beta coefficient (β). To test the significant differences in performance, ANOVA and F test were used to test differences in variances and also means of funds.

4. 4.0 FINDINGS

Performance of Equity Fund over the Period 2006 – 2009

The performance data for 2005 was unavailable for the existing funds and therefore the periods of the study were adjusted to 2006 to 2009. During the year 2006, there were only three funds trading in equity namely OMK, Britak and CBA. The number grew to four with the addition of African Alliance in 2007, to six in 2008 with addition of ICEA and Suntra and finally to seven with inclusion of CFC in 2009. In 2006, the market had a positive return of 3% while all the individual funds had a positive but lower return compared to the market. OMK had 2.8%, followed by Britak 2.3% and CBA 2.1%.

In 2007, all the funds had positive returns. However, in 2008, all the funds had negative returns except Dyer and Blair that began trading in equity and earned a positive return of 0.9%. In 2009, all the funds had positive returns except CFC, which started trading in that year and earned a negative return of 0.633%. Britak had the highest positive return of 0.81% while CBA had the least positive return of 0.11%.

The risk of the fund as measured by standard deviation show that in 2006 the market had a higher standard deviation of 4.005% while the individual funds had a lower standard deviation of 3.0% for CBA, 2.7% for OMK and Britak with 2.6%. In 2007, African Alliance had the highest standard deviation of 3.94% followed by OMK with 3.137 %, then Britak with 2.96% and finally CBA with 2.723%. %. During 2008, the market had a standard deviation of 7.887% which was higher than those of individual funds except Britak, that had a standard deviation of 12.812%, and Suntra with 7.915 %, Dyer and Blair had the least standard deviation of 5.241%. Finally, in 2009, the market index funds had a standard deviation of 9.5% against the riskiest OMK with 7.99% and CFC with the lowest standard deviation of 1.47%.

CBA had a higher positive beta of 0.86 followed by OMK with 0.84 and finally 0.62 for Britak in 2006. During 2007, OMK had the highest positive beta of 0.761 then CBA with 0.646, Britak with 0.609 and finally African Alliance with 0.13. The entire firm had negative beta except ICEA with 0.4706 and Britak with 0.2022 in 2008. In 2009, CFC started trading in equity fund and was the most volatile investment with a beta of 1.09 and hence most aggressive. All the other funds except Dyer and Blair and Suntra, which are relatively young, were less aggressive as they also had positive betas but less than one. These summaries along with the risks were provided in Table 1 below:

Table 1: Returns, Risk (beta and standard deviation) and R^2 for equity fund for 2006-2009

Funds name	2006				2007				2008				2009			
	R_P	δ_P	β_P	R^2	R_P	δ_P	β_P	R^2	R_P	δ_P	β_P	R^2	R_P	δ_P	β_P	R^2
OMK	0.020896	0.029697	0.858206	0.341342336	0.000965	0.031368	0.760944	0.425520779	-0.0245	0.060325	-0.2037	0.016985888	0.005083	0.079934	-0.11791	0.012495
BRITAK	0.023766	0.027388	0.617746	0.165240191	0.007476	0.029604	0.608825	0.165365694	-0.01678	0.128118	0.202197	0.541240821	0.008057	0.077625	-0.1439	0.017035
CBA	0.028069	0.025984	0.842372	0.745390466	0.001041	0.027229	0.645971	0.233338179	-0.02678	0.061755	-0.02643	0.059626681	0.00111	0.078515	-0.03367	0.00094
Suntra									-0.01811	0.079147	0.038919	0.002509801	0.004357	0.047148	0.13625	
ICEA									-0.02648	0.057674	0.360337	0.116977658	0.006343	0.068076	-0.14104	0.012618
Dyer Blair									0.00974	0.058730	-0.08099		0.007117	0.063077	-0.10981	
Africana					0.020747	0.039437	0.129783	0.028420357	-0.01598	0.052414	-0.00414	0.004375485	0.004228	0.037155	0.320097	0.007059
CFC													-0.00633	0.014699	1.09055	

In 2006, CBA was the most diversified than other funds a coefficient of determination of 0.75 compared to OMK that had 0.34 while Britak had 0.17. However, OMK surpassed CBA in 2007 with a coefficient of determination of 0.45 against CBA with a coefficient of 0.23. More new funds started trading in 2008 which included ICEA and Suntra. Britak was more diversified than all the funds trading in 2008 with a coefficient of 0.54 followed by ICEA with R^2 of 0.11. In 2009, all the funds were poorly diversified with the most diversified fund being ICEA with a coefficient of 0.0126.

The Sharpe ratios for 2006 show that all the funds had negative returns with Britak having 1.71, CBA 1.59 and OMK with an index of 1.46. In 2007, the Sharpe performances were all-negative. CBA had the highest negative Sharpe of 2.5 while African Alliance had the lowest negative Sharpe of 1.198. The Sharpe ratio for 2008 and 2009 were all-negative implying that it did not outperform the market. Britak was the only fund which had a positive Jensen alpha of 0.022 in 2006. All the other funds that included OMK and CBA had negative alphas of 0.0084 and 0.015 respectively.

Treynor measure show that all the funds had negative excess return on the portfolio for the period 2006 and 2007.In 2008, all the funds earned positive excess returns except Dyer and Blair and Britak, which had negative returns. Suntra had the highest excess returns of 22.5 while OMK had the least positive excess return of 0.4. Finally, Suntra, Dyer and Blair and CFC had negative excess returns while CBA had the highest excess return of 2.16.

Britak was the only fund, which had a positive Jensen alpha of 0.022 in 2006. All the other funds that included OMK and CBA had negative alphas of 0.0084 and 0.015 respectively.

The Jensen Alpha for all the funds was negative for all the years; 2007, 2008 and 2009 except CFC which had a positive alpha of 0.0025. These results were as summarized in Table 2 below:

Table 2: Treynor, Sharpe and Jensen measure for equity fund

Funds name	2006			2007			2008			2009		
	T_P	S_P	J_A	T_P	S_P	J_A	T_P	S_P	J_A	T_P	S_P	J_A
OMK	-0.04755	-1.46255	-0.00842	-0.08807	-2.13639	-0.06701	0.485904	-1.64081	-0.12081	0.582283	-0.85895	-0.07759
BRITAK	-0.07181	-1.70716	0.022059	-0.09938	-2.04377	-0.0605	-0.45382	-0.71625	-0.0701	0.456479	-0.84619	-0.07658
CBA	-0.05503	-1.59036	-0.015	-0.10362	-2.45831	-0.06694	3.849682	-1.6479	-0.1046	2.157489	-0.92507	-0.07518
Suntra							22.51205	-1.24475	-0.09354	-0.21676	-1.47164	-0.05631
ICEA							1.67628	-1.75922	-0.06285	0.477878	-0.99005	-0.07808
Africana				-0.36393	-1.19765	-0.04723	1.123098	-1.55036	-0.09964	0.633016	-1.10205	-0.07783
Dyer and Blair							-0.28156	-1.17625	-0.06107	-0.48899	-1.79314	-0.04514
CFC										-0.07342	-5.44738	0.002526

The tests of significance for the risk and returns for funds with data over two years were given in Table 3 below:

Table 3: ANOVA test for Equity fund

		sum of squares	DF	Mean square	F	Significance
OMK	Between groups	0.016	3	0.05	1.633	0.196
	Within groups	0.138	43	0.03		
	Total	0.154	46			
BRITAK	Between groups	0.01	3	0.003	0.507	0.680
	Within groups	0.276	43	0.006		
	Total	0.286	46			
CBA	Between groups	0.013	3	0.004	1.174	0.332
	Within groups	0.139	38	0.004		
	Total	0.152	41			
AFRICAN ALLIANCE	Between groups	0.004	2	0.002	0.631	0.538
	Within groups	0.093	33	0.003		
	Total	0.096	35			

The above Table shows the analysis of the variance (ANOVA) between the study years and within the individual years for all the funds with data over two years. The funds with available data over two years included OMK, Britak, CBA and African alliance. The result indicate that the risk between groups and within groups were not significant at 5% level. This means that there are no differences in risk from one month to another and between years over study period for all the funds. The intermonth and inter year differences in means for the same funds were as shown in Table 4 below:

Table 4: multiple mean comparisons for equity fund

	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
OMK	2006	2007	.027104606	.023638289	.258	-.02056655	.07477576
		2008	.052068456[*]	.023638289	.033	.00439730	.09973961
		2009	.022986221	.023638289	.336	-.02468493	.07065737
	2007	2006	-.027104606	.023638289	.258	-.07477576	.02056655
		2008	.024963851	.023118703	.286	-.02165946	.07158716
		2009	-.004118384	.023118703	.859	-.05074169	.04250492
	2008	2006	-.052068456[*]	.023638289	.033	-.09973961	-.00439730
		2007	-.024963851	.023118703	.286	-.07158716	.02165946
		2009	-.029082235	.023118703	.215	-.07570554	.01754107
	2009	2006	-.022986221	.023638289	.336	-.07065737	.02468493
		2007	.004118384	.023118703	.859	-.04250492	.05074169
		2008	.029082235	.023118703	.215	-.01754107	.07570554
BRITAK	2006	2007	.016289693	.0334359	.629	-.05114034	.08371972

				54			
		2008	.040546869	.033435954	.232	-.02688316	.10797690
		2009	.015708672	.033435954	.641	-.05172136	.08313870
	2007	2006	-.016289693	.033435954	.629	-.08371972	.05114034
		2008	.024257176	.032701008	.462	-.04169069	.09020504
		2009	-.000581021	.032701008	.986	-.06652889	.06536685
	2008	2006	-.040546869	.033435954	.232	-.10797690	.02688316
		2007	-.024257176	.032701008	.462	-.09020504	.04169069
		2009	-.024838197	.032701008	.452	-.09078607	.04110967
	2009	2006	-.015708672	.033435954	.641	-.08313870	.05172136
		2007	.000581021	.032701008	.986	-.06536685	.06652889
		2008	.024838197	.032701008	.452	-.04110967	.09078607
CBA	2006	2007	.015025032	.030292176	.623	-.04629827	.07634834
		2008	.047677756	.030292176	.124	-.01364555	.10900106
		2009	.010545079	.030292176	.730	-.05077823	.07186838
	2007	2006	-.015025032	.030292176	.623	-.07634834	.04629827
		2008	.032652724	.024733458	.195	-.01741754	.08272299
		2009	-.004479953	.024733458	.857	-.05455022	.04559031
	2008	2006	-.047677756	.030292176	.124	-.10900106	.01364555
		2007	-.032652724	.024733458	.195	-.08272299	.01741754
		2009	-.037132678	.024733458	.142	-.08720295	.01293759
	2009	2006	-.010545079	.030292176	.730	-.07186838	.05077823
		2007	.004479953	.024733458	.857	-.04559031	.05455022
		2008	.037132678	.024733458	.142	-.01293759	.08720295
AFRICA	2007	2008	.021851441	.021660144	.320	-.02221645	.06591933
		2009	.001642626	.021660144	.940	-.04242527	.04571052
	2008	2007	-.021851441	.021660144	.320	-.06591933	.02221645
		2009	-.020208814	.021660144	.358	-.06427671	.02385908
	2009	2007	-.001642626	.021660144	.940	-.04571052	.04242527
		2008	.020208814	.021660144	.358	-.02385908	.06427671

The comparisons of returns for 2006 against other years were not significant for all the funds except OMK which was significant at 95% confidence interval. However, for 2007 against other years, none of the funds were significant. In 2008, the comparisons with other years were also not significant except OMK with a significance of 0.033 at 95% confidence interval. Finally, 2009 comparison with other years were all not significant. Generally, there were no significant differences in performance for all the funds within years and across the years for all the funds.

The funds with data less than two years were analyzed using levene's test and t test. These tests for this category of funds which included Suntra and ICEA.

The variance of Suntra and ICEA as tested by levenes were all not significant while the equality of means analyzed by use of t test also show no significance. Similar to funds with data over two years, the result show that there were no differences in performance as measured using risk and returns over the study period. These results were as summarized in Table 5 below:

Table 5: Independent Samples Test

		Levene's test for equality of variance		t test for equality of means					95% confidence interval for the difference	
		F	Significance	t	DF	Significance -2 tailed	Mean difference	Standard error		
Suntra	Equal variance assumed	0.856	0.366	-0.793	20	0.437	-0.023	0.028	0.082	
	Equal variance not assumed			-0.756	13.71	0.463	-0.023	0.030	-0.086	
ICEA	Equal variance assumed	0.06	0.809	-1.19	21	0.247	-0.033	0.0275		
	Equal variance not assumed			-1.20	20.92	0.243	-0.033	0.0273		

5. DISCUSSION OF FINDINGS

All the funds on average performed poorly against the market index during the study period. The inferior risk adjusted performance measures was in agreement with findings by Taib et al (2007) who studied Malaysian unit trust aggregate performance. A mixed finding was made in the studies by Shah, Hijazi and Hamdani (2005) that show the funds outperformed the market as revealed by Jensen alpha while Sharpe shows that no funds were preferable. According to them, Mutual Fund industry's Sharpe ratio is 0.47 as compared to the market; that is, 0.27 risk premium per one percent of standard deviation. Results of Jensen differential measure also show a positive after cost alpha. Hence, overall results suggest that mutual funds in Pakistan are able to add value. Whereas results also show some of the funds underperform, these funds are facing the diversification problem. According to them, funds industry outperformed the market proxy by 0.86 percent.

However, a different finding was made in the study by Lai and Lau (2010) who examined the performance of 311 mutual funds from January 1990 to December 2005 in Malaysia. By using composite portfolio performance measures they found evidence that mutual fund performances yield superior returns with relatively lower systematic risks.

This finding contradicts a study by Gallagher (2003) who examined the performance for actively managed institutional balanced funds, Australian share funds and Australian bond funds and documents that a significant number of active Australian equity managers earned superior risk adjusted returns in the period. Lai and Lau (2010) examined the performance of 311 mutual funds from January 1990 to December 2005 in Malaysia by using different portfolio performance measures and also found evidence that mutual fund performances yield superior returns with relatively lower systematic risks.

The equity funds were generally aggressive in 2006 and 2007 even though they had negative betas in subsequent years. The funds generally have lower standard deviation implying that all the portfolios are well diversified. It was noted that young and small firms perform better than big and old firms which is in consistent with the study by Meier, Iwan and Karoui (2009) who used different model and found that newly launched funds outperform their counterparts significantly using Carhart four factor models. This is because newly launched funds are afforded greater autonomy in portfolio choice as they have a smaller base of investor capital to allocate to individual securities.

Generally, none of the funds outperformed the market index as almost all the funds had negative Sharpe and Jensen alphas for the sample period. However, Treynor index were positive for some funds and negative for others in equity and blended funds and, therefore, neither underperforms nor outperforms the market.

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