# THE PERFORMANCE OF MUTUAL FUNDS IN GHANA. A CASE STUDY OF ANIDASO MUTUAL FUND

2006-2008

by

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# **KNUST**

A Thesis submitted to Business School, Kwame Nkrumah University of Science and Technology in partial fulfilment of the requirements for the degree of

# MASTER OF BUSINESS ADMINISTRATION

Faculty of Arts and Social Sciences, College of Business

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#### **DECLARATION**

I hereby declare that this submission is my own work towards the MBA and to the best of my knowledge, it contains neither material previously publicized by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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# **DEDICATION**

To God be the Glory, Great things He has done. To my Parents Rev & Mrs. Obeng, my dearest One Cece I say God bless you for all your encouragement and support. To all my sisters, I say I love you all. Albert of New Generation Investment Company I say God richly bless you.



# **ACKNOWLEDGEMENTS**

This work will not have seen the light of day without the invaluable help, guidance and support of my supervisor, Mr. Kwasi Poku who has directed and guided me throughout this study.

Special mention must also be made of Mr. Kingsley Opoku Appiah of the KNUST Business School for his help, advice and immense contribution in giving out text and materials.

To all lecturers of the KNUST School of Business who have taught, encouraged and guided during my tenure in the school, I say I am greatly indebted.



# **ABSTRACT**

This study seeks to appraise the performance of Anidaso mutual Fund between the periods 1<sup>st</sup> January 2006 to 31<sup>ST</sup> December 2008, a three year period. The study attempts to unfold the history and a general overview of Mutual fund both in Ghana and across the globe. Three basic indexes in evaluating Performance Mutual Fund were closely analyzed, these indexes are the Sharpe index, Treynor index and Jensen's alpha. Most of the early studies on mutual funds' performance have used one of these three indexes. The analysis has been done in two parts. First, returns (not risk adjusted) between Anidaso fund and that of the GSE All-Share index were compared. Second, various tests to evaluate the performance capacity of Anidaso mutual fund and that of the general market were also conducted.

It was found out that, even in the midst of the intense competition and challenges among investment companies in the country, Anidaso Mutual fund had still managed to perform creditably with Sharpe index, Treynor index and Jensen's alpha as compared to the industry average. In view of these, increase in education and awareness would increase the number of investors to patronized with the option of mutual fund among other investment alternatives in the Country.

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# DECLARATION

I hereby declare that this submission is my own work towards the MBA and to the best of my knowledge, it contains neither material previously publicized by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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#### CHAPTER ONE

#### 1.0 INTRODUCTION

## 1.1 Background to the Study

For decades investors have been trying to come up with trading strategies that could outperform the financial market. Investors are more interested today than they have ever been in evaluating the performance of their securities; mutual funds, stocks, bonds etc. When investing on the stock market, it is important for investors to diversify their investments. This can be done by either investing in many different stocks or investing in mutual funds (which is a portfolio with many different securities). This will decrease the risk of the investment. Historically, in Africa, private and long-term domestic savings have been low. Recent economic and financial reforms have improved on the adequacy of the financial system (www.databank.org). This includes the development of stock markets and other economic and financial liberalization programmes.

During the last 30 years mutual funds have changed the financial markets all over the world. This can be seen in the changes of the savings structure of household's. Savings have moved from the traditional bank account towards mutual funds which offer possibilities to invest in different sectors and in different geographical regions. An investment such as mutual fund is a clear alternative for an investor seeking to own stocks and bonds. They consider how much they want to pay for this investment and whether it is worth the costs.

When evaluating mutual funds one has to consider fund attributes, such as the management fees that are paid by the investors to the fund managers to manage their investments. Measuring fund performance is important both because of the scale of the

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mutual fund industry and also because of its implications for efficient market theory. Currently the scale of the mutual fund industry in Ghana is believed to be about three Hundred thousand Ghana Cedis in assets. One investment medium appropriate for many people is Mutual fund Investment Company, (Marshall, D H McManus, and W.W Viele. D F 2002) Shares in some mutual funds are purchased through a registered representative such as a brokerage firm and in some cases the investor purchase shares directly from the mutual fund. Whenever an investor invests in some shares of a company, the company then invests the funds in a new project in other to grow the investment. The actual return on the investment might be better or worse than expected. Provided that the investor diversifies his investments in a suitably wide portfolio, the investments which perform well and those which perform badly should tend to cancel each other out; then much of the risk can be diversified away. Mutual funds provide the needed diversified portfolio: however, like any investment, some amount of risk is unavoidable. As a mutual fund investor one must always consider mutual fund's prospectus before handing over money. Since investors have varying of risk tolerance selection, the risk section of a prospectus is extremely important (Boggle, J, 1997). It details the risks that are associated with a particular fund, such as credit risk, interest rate risk, market risk etc. A downside is that many people are 'sold' a fund that either does not meet their investing time frame or one that does not match a basic index-fund (Bogle, J, 1997). The public do not invest in funds that has perform poorly, so to keep its customers, the mutual fund industry fold their bad funds into better performing funds.

This means that reports of the funds performance are skewed by survivorship bias, which makes you think a fund beats the market when it actually underperforms (Bogle J,

1997). This occurs when funds with poor performance have been wiped out or made to disappear while strong performers continue to exist, creating skewed statistical data, survivorship bias makes it appear as though the poor performers never existed at all. In other words, to hide any poor performance, the funds that exhibited bad returns would have been closed or merged into other funds.

Mutual fund is an investment that pools money from savers and use these funds to buy stocks, long-term bonds or short-term bonds, or short-term debt instruments issued by businesses or government units. This study attempts to assess the performance of mutual funds, particularly the New Generation's mutual fund.

#### 1.2 Problem statement

Investment is made because the investor anticipates a return. The return on the investment is what the investor earns. This may be in the form of income such as dividends and interest. An investor must be willing to bear some form of risk to achieve an expected return. Even relatively safe investments involve some risk, there is no completely safe investment. In addition to bearing risk investors participate in efficient and competitive financial markets. It is therefore necessary that the investor exercises vigilance by spending time to understand the way financial market operate and also follow closely the operations of the company in which he/she hold shares. Current trends suggest an increase in the number of mutual funds available thus increasing competition as well as, government effort in introducing tax-incentive based on voluntary savings plans such as the long term savings scheme act, and the government bond all provide alternatives to mutual fund investments. It is therefore important to assess the

performance of New Generation's Anidaso mutual fund as one providing optimal returns based on its set objectives, hence The Performance of Mutual funds in Ghana, A case study of Anidaso mutual Fund.

# 1.3 Objectives

The specific objective of the study was on the performance of the Anidaso Mutual fund. For some time now most mutual fund performance evaluations have been fairly simplistic. Also in the case of Ghana the non-existence of a robust performance measure in assessing mutual funds leaves room for subjectiveness since each fund claims to have achieved so much based on no clear cut measure of optimality.

The Specific objectives of this study therefore were:

- To review the concept of Mutual Fund as Investment Strategy.
- To describe the state of mutual funds In Ghana.
- To assess mutual fund returns relative to risk.
- To evaluate the performance of Anidaso mutual fund relative to the Ghana Stock
   Exchange index.
- To make recommendation based on analysis and findings.

# 1.4 Justification of the study.

The study provides users of financial information including creditors, management, investors, providers of capital, employees, government and other related agencies detailed information about the financial position of the firm. This will give potential investors the basis to form their judgment about the operating performance of the company. Users of financial investment data can get further insight about financial strengths and weakness of the company if they properly analyze the information reported in this thesis.

In the light of the current credit crunch and the post Enron-Andersen debacle, there has been widespread debate among various stakeholders in the quest to identify firms likely to go bankrupt and/or financially distressed. This study therefore sought to find out the likelihood of the fund ending up in financial distress. Knowing the performance level of the fund will help management to allocate fund efficiently.

# 1.5 Scope

As mentioned earlier the focus of this study was on the performance and risk associated with New Generation's Anidaso mutual fund scheme. New Generation Investment Company is an investment bank and brokerage institution located in Kumasi which is doing creditably well. The study identified the objectives for the creation of the fund as well as its achievements from 1<sup>st</sup> January 2006 to 31st December 2008.

# 1.6 Overview of Methodology

In order to achieve the above objectives, data sources for the study included primary and secondary data. The primary data provided first-hand information from the service providers on the historical performance to assess the quality and future of the Anidaso portfolio management. The secondary data on the other hand provided a descriptive study on the various tool or measurement employed in mutual fund assessment and their relevance in the Ghanaian context. The assessment, measurement and interpretation of the above objectives involved methods of analysis. Using standard deviation as a proxy risk, this study attempted to measure the volatility associated with mutual funds especially the Anidaso fund. These included both quantitative and qualitative tools, some of which are simple statistical tools such as regression analysis and other econometric tools of analysis such as the Sharpe ratio, beta, and alpha as additional proxy measurement tools.

# 1.7 Limitations of the Study

The main setback for the study was the limited time period as well as the fact that it was a pioneer study even though other people had attempted to write on the topic, thus information on the performance of mutual funds were not readily available in Ghana. These setbacks notwithstanding other relevant data were acquired to bridge the various setbacks encountered.

# 1.8 Organization of Study

This study is in five chapters. The first being the introductory chapter, which presents general introduction, the problem statement as well as outlined issues of concerned with respect to mutual funds. The second chapter reviews available literature on the subject of mutual funds. The third chapter deals the methodology and the profile study of New Generation's Anidaso fund. The fourth chapter involves reviewing the underlying concepts of performance assessment and analysis of the various data collected and discussions. The analysis is presented in the fifth chapter and Sixth chapter presents the findings, conclusions and recommendations.



#### **CHAPTER TWO**

# 2.0 LITERATURE REVIEW

# 2.1 History of Mutual Funds

Mutual funds started in the Netherlands in 1822, in Scotland it began in 1880's which was originally called investment trusts, in American the first one was known as the New York Stock Trust established in 1889. Subsequently, many more followed: Massachusetts investment trust (now called MFS). Fidelity, scudder, pioneer and the Putnam fund.

In the 1960's there were phenomenal rise in aggressive growth funds (with very high risk). Sometimes called 'go go' or hot-shot' funds, these received the majority of billions of dollars flowing into mutual funds at that time. In 1968 and 1969, over 100 of these new aggressive funds were established (Woodard D, 2003).

In 1969 there was a severe bearish market resulting from a myriad of factors. People became disillusioned with stock and mutual funds, panicked investors referred to the phenomenon as the market loan; they believed the market would never get back to where it was. (Woodard D, 2003) Unemployment grew, inflation went crazy and investors pulled billion back out of the funds. They should have hung in there because many funds have risen by 9000% since then (Woodard D 2003).

At the end of the 1920's there were only ten mutual funds. At the end of the 1960's this had grown to 244 mutual funds. Today there are more than 6500 unique funds and even thousands more that differ only by their share class: how they are sold, and how their expenses are charged. The 1970's saw a new kind of fund innovation funds. The largest

and most successful no load fund was the Vanguard funds created by John Bogle in 1977. Since 1940 no mutual funds has gone bankrupt. However the same can not be said of banks and savings and loan (Woodard D 2003). With concept mutual fund investors come from all walks of life and all income levels. They all shares one common to turn the problems of security selection and portfolio management over to professional money managers (Gitman L J Joehnk, M D 1999). Investors therefore avoid the questions of which stock or bond to select, when to buy of sell. The mutual funds concept is thus based on the simple idea of turning the problems of security selection over to the professionals. In essence mutual funds combine the investment capital of many people with similar investment goals and invest the funds for these individuals in a wide variety of securities. Investors receive shares of stock in mutual fund and through the fund they are able to enjoy much wider investment diversification than they could otherwise have achieved. When dividend and interest payment are received they are passed on to the mutual funds shareholders and distributed on the basis of prorated ownership. For example if you own 1000 share of stock in a mutual fund and that represents, say, One (1) percent of all shares outstanding, you will receive 1 percent of the dividends paid by the fund. When a security held by the fund is sold for a profit, the capital gain is also passed on to fund shareholders. The whole mutual fund idea, in fact, rests on the concept of pooled diversification, and works very much like insurance (Gitman L J Joehnk M D 1999). Whereby individuals pool their resources for the collective benefit of all the contributors.

#### 2.2 Nature of Mutual Funds.

Mutual funds are open end investment companies (Mayo, H. B.2000). This means that unlike the first trust schemes that offered a specific number of shares, open end offers a much wider varieties. These early investment companies provided a fixed number of shares and used the funds that were obtained through the sale of the stock certificates to acquire shares from other firms. Today, the descendants of these companies are referred to as closed-end investment companies because the number of shares is fixed. On the other hand, mutual funds provide variety in the number of shares, and these vary as investors buy more shares from the trust or sell them back to the trust. Although closed-end investment companies are similar to open-end investment companies, there are important differences.

The first concern is their capital structure. Shares in mutual funds are not traded in the secondary markets. Instead an investor purchases share directly from the fund on the net asset value plus any applicable sales charge. After receiving the money the mutual funds issues new shares and purchases asset with these newly acquired funds. If investor owns shares in the fund and wants to liquidate the position, the shares are sold back to the company at the net asset value minus any applicable sales charge. The shares are redeemed and the fund pays the investor from its cash holding. If the fund lacks sufficient cash it will sell some of the securities it owns to obtain money to redeem the shares. The fund cannot suspend this redemption feature except in an emergency, and then it may be done only with the permission of the Securities and Exchange Commission (Mayo H B 200). Mutual funds offer a wide variety of investment opportunities as well

as an array of service that investors find appealing. A mutual fund is basically a financial services organization that receives money from its shareholders and then invests those funds on their behalf in a diversified portfolio of securities. An investment in mutual fund represents an ownership position in a professionally, managed portfolio of securities when you buy shares in a mutual fund you become a part of that portfolio.

The second difference between closed-end open-end investment companies is the source from return to the investor. As with closed-end investment companies individuals may profit from investment in mutual funds from several sources. Any income that is earned from the fund's assets in excess of expense is distributed as dividends. If the funds assets appreciate in value and the fund realize these profits the gains are distributed as capital gains. If the net assets values of the share appreciate the investor may redeem them at the appreciated price. Thus in general the open-end mutual fund offers investors the same means of earning profit as the close-end investment companies does with one exception. In the case of close-end investment companies the price of the stock may rise relative to the asset of the shares. The possibility of a decreased discount of an increase premium is a potential source of profit that is available only through closed-end investment companies. It does not exist for mutual funds because their shares never sell at a discount. (They actually sell for premium if a sales charge is added to the net asset value). Hence charges in the discount or premium are a source of profit or loss to investors in closed-end but not in open-end investment companies.

A third important difference between open-end and closed-end investment companies pertains to the cost of investment. Mutual funds continuously offer to sell new shares and this share may be sold at their net value plus a sales fee which is commonly called a loading charge. These costs and others are disclosed in the mutual funds prospectus. When the investor liquidates the position the shares are redeemed at their net asset value. For most funds no additional fees are charged for the sale. The loading fee may range fro zero for no-load mutual funds to between 3 and 6 percent for load fund (Mayo, 2000).

In addition to loading charges investors to mutual funds have to pay several of other expenses. Each mutual fund is required to disclose in its prospectus these various costs which are generally referred to as fees and expenses. These expenses are the cost of owning in shares and are in addition any sales fee (loading charges) the investor pays when shares are purchased. The cost of owning the shares are generally expressed as a percentage of the fund assets. A total expense ratio of 1.6 percent tell the investor that the fund's expenses are \$1.60 in each \$100 of assets. It is obvious that the fund must earn at least \$1.60 for each \$100 in asset just to cover the costs so if a fund earns 11.2 percent on its assets the investor nets 9.6 percent.

# 2.3 Types of Funds

Some mutual funds specialize in stocks and other in bonds, some funds have maximum capital gains as their investment objective, and some seek high current income. Some funds will appeal to speculators and others primarily to income-oriented investor. Every

fund has a particular investment objectives some of the most common ones being capital appreciation, income tax-exempt income preservation of investment capital combination thereof. Disclosure of a fund investment objective is required by the Securities and Exchange Commission and the fund is expected to do its best to conform to its stated investment policy and objective. Categorizing funds according their investment policies and objective is widely practiced in the mutual fund industry, as it tends to reflect similarities not only does the funds manage their money, but also in their risk and return characteristics. Some the more popular types of mutual funds included aggressive growth, equity-income, balanced growth and income bond, money market index sector, socially responsible international and asset allocation funds.

Alternatively, mutual fund may also be classified according to investment style (Mayo H B 2000). Investment style refers to portfolio manager's investment philosophy investment strategy. Possible styles include the size of firms acquired by the fund or the approach used to select the firms. Firm size refers to large cap, or small cap. The word "cap" is short for capitalization, which refers to the market value of the company (Mayo H.B. 2000). The market value is the number of shares outstanding times the market price. Large cap stocks are the largest companies with market value exceeding 1 billion. A small cap is a much smaller firm with a value of less than 300 million. The mid-cap thus, lies between the two extremes.

#### 2.3.1 Growth funds

The objectives of growth funds are simple-capital appreciation. Long-term growth capital gains are the primary goals of such funds, and as a result, they invest principally in common stocks that have above-average growth potential. Because of the uncertain nature of their investment income, growth fund involves a fair amount of risk exposure. They are usually viewed as long-term investment vehicles that are most suitable for the more aggressive investor who wants to build capital and has little interest in current income.

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# 2.3.2 Aggressive Growth funds

Aggressive growth fund is also another type of mutual fund. These are the so-called performance funds that tend to increase in popularity when the market heat up. Aggressive growth funds are highly speculative investment vehicles that seek large profit from capital. Many are fairly small, with portfolio consisting mainly of high-flying common stock. Also known as capital appreciation" or small cap" funds they often buy stock of small unseasoned companies, stocks with relatively high price/earning multiples, and stock whose prices are volatile. Some of these funds even go as far as use leverage in their portfolio (that is they buy stock on margin by borrowing part of the purchase price). All this is yield big returns. However, aggressive growth funds are also highly speculative and perhaps are the most volatile of all the fund types. When the markets are good, these funds do well, when the markets are bad they typically experience substantial losses.

# 2.3.3 Equity-Income funds

Equity-income funds emphasize current, which they provide by investing primarily in high-yielding common stock. Capital preservation is also a goal of those funds and so is some amount of capital gain, although capital appreciation is not their primary objective. They invest heavily in high-grade common stock some convertible securities and preferred stock and occasionally even junk bonds or certain types of high grade foreign bond. They like securities that generate hefty dividend yields but also consider potential price appreciation over the long haul. In general because of their emphasis on dividend and current income, these funds tend to hold higher quality securities that are subject to less price volatility than the market as a whole. They general viewed as a fairly low-risk way of investing in stock

#### 2.3.4 Balanced Fund.

Balanced fund is named because they hold a balanced portfolio of both stock and bonds and they do so for the purpose of generating a well balanced returns of both current income and long-term capital gain. The funds can be of course tilt the emphasis in their security holdings on way or the other. Clearly the more the fund leans toward fixed-income securities the more income oriented edit will be for the most part balanced funds to confined their investing to high securities. Such as, they are usually considered to be relatively safe form of investment. On where you can earn a competitive rated of return without having to endure a lot price volatility.

# 2.3.5 Growth and Income Funds

Growth and income funds are like balanced funds, they seek to balance return made up of both current income and long-term capital gains placing a greater emphasis on the growth of capital. Moreover unlike balanced funds, growth and income funds put most of their money into equities: it is not unusual for those mutual funds to have 80 to 90 percent of their capital in common stocks. They tend to confine most of their investments high equity issues so you can expect to find a lot of growth oriented blues chip stock. One big appeal of those funds is the fairly substantial return many of them have been able to generate over the long haul. But these funds do involve a fair amount of risk if for no other reason than the emphasis they place on stock and capital. Consequently, growth funds are most suitable for those investors who can tolerate their risk and price volatility.

### 2.3.6 Bond funds

Bond funds invest exclusively in various kinds and grades of bonds. Income is their primary investment objective, although they do not ignore capital gains. They are three important advantages to buying shares in bond funds rather than investing directly in the most part balanced funds tend to confine their I investing to high grade securities, As such they are usually considered to be relatively safe form of investing one where you can earns a competitive rate of return without having a endure a lot of price volatility.

# 2.3.7 Money Market Mutual Funds

First introduce in 1972, the concept of investing in a portfolio of short-term money instruments has made market mutual funds very popular. The reason for the popularity

lies with the fact that investors with modest capital are given access to the higher yielding end of the money market. There are over 1,300 money fund that together hold over \$1.1 trillion in assets.

Actually there were several different kinds of money market mutual funds. General purpose money funds essentially invest in any and all types of money market investment vehicles, from Treasury bills to corporate commercial paper and bank certificates of deposit. They invest their money wherever they can find attractive short-term returns. The vast majority of money funds are of this type. The exempt money fund limits its investment to tax-exempt municipal securities with types very short (30 to 90 day) maturities. Since their income is freed from federal income tax they appeal predominantly to investors in high tax brackets. Government securities money funds eliminate any risk associate with default by confining their investment to Treasury bills and other short term securities of the government or its agencies. Money funds are highly liquid investment vehicles and are very low in risk, since they are virtually immune to capital loss. However, the interest incomes they produce tend to follow interest rate conditions, and as such returns to shareholder are subject to the ups and downs of market interest rate.

#### 2.3.8 Index Funds

An index fund is a typed of mutual funds that buys and holds a portfolio of stock (or bond) equivalent to those in a market index like the S&P 500 an index fund that is trying to match the S\*P 500, for example would hold the same 500 stock that are held in that index in exactly the same proportion. Rather than trying to beat the market as most

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actively managed funds do index simply try to match the market that is to match the performance of the index on which the fund is based. They do this through low-cost investment management in fact, in most cases the whole portfolio is run almost entirely by a computer that matches the fund holdings with those of the targeted index income form modest amounts of dividend income, these produce very little taxable income from year-to-year causing some high-income investors to view as a type tax-sheltered investment.

In addition to their tax shelter however these funds provide highly competitive returns to investor. The fact that is very difficult to outperform the market whether you are a professional money manager of a seasonal individual investor index funds readily acknowledge this fact and as such don't even try to outperform the market instead, all they try to do is match the returns. Surprisingly the net result of this strategy, along with a low cost structure, is that most funds readily outperform the vast majority of all other type of stock funds. Indeed, historical data show that only 20to25 percent of stock funds outperform the market. Because an index fund will pretty much the market these funds tends to produce better returns than 75to 80 percent of competing stock funds

Sector funds, socially responsible funds, International funds and Asset allocation

Funds are other type of mutual funds. Sector funds restrict its investment holdings to a

particular sector of the market. These funds concentrate their investment in the one or

more industries that make up the targeted sector. For example, a health care sector fund

would confine its investment to those industries that makes up this segment of the market drug companies hospital management firms medical suppliers and biotech concerns. Its portfolio would consist of promising growth stocks from these industries. The underlying investment objective of sector funds is capital gains. They are similar to growth funds and thus should be considered speculative in nature

For some investing is far more than just cranking out some financial ratios. To these investors, the security selection process includes the active explicit consideration of moral, ethical, and environment issues. Not surprisingly, these are a number of funds today they cater for such investors known as socially responsible funds f they actively and directly incorporate morality and ethics into the investment decision. These funds only consider what they view as socially responsible companies for inclusion in their portfolio. Generally these funds abstain from investing in companies that derive their revenues from tobacco, alcohol, or gambling, are weapons contractor, or operate their powers plants. In addition the funds tend to favor firms that produce "responsible" produces and/or services, have strong employee relations, have positive environment records and are socially responsive to the communities in which they operate. As a far as performance is concerned, the general perception is that there is price to pay for socially responsible investing in the form of lower average return

Technically the term international fund is used to describe a types of mutual fund invests exclusively in foreign securities, often confining the fund's activities to specific geographic regions. Basically, these fund attempt to take advantage of international

economic development in two ways(1) by capitalizing of changing foreign market condition and (2) by positioning themselves to benefit from devaluation of the dollar. They do so because can make money not from rising share price in a foreign market but perhaps just as important, from a falling dollar (which in itself, produces capital gains to American investors in foreign securities a d or international funds) Many of these however will attempt to protect their investors from currency exchange risks by using various type of hedging strategies. But even with currency hedging international funds are will considered to the fairly high-risk investments and should only be used by investors who understand and are able to tolerate such risk.

Asset allocation fund spread investors" money across all different types of markets. That is while most funds concentrate one type of investment-whether stocks, bond of money market securities-asset allocation funds put money into these markets. Many of them also include foreign securities in their asset allocation; scheme and some may even include inflation-resistant investments, like gold or real estate. These funds are designed for peopled who want to hire fund managers not only to select individual securities for them, but also to make the strategic decision of how allocate money among the various market. Asset allocation funds are supposed to provide investors with one-stop shopping that is just find an asset allocation fund or two that fits one' needs and then invest, rather than going out and buying a couple of stock funds, bond fund etc success of these funds rests not only on how good a security picker the money manager is, but also no how good a job he or she does in timing the market and moving funds among different segments of the market.

Mutual funds are considered by many to be the ultimate asset allocation vehicle a face that has led a number of mutual funds companies to develop what suggest is the ultimate mutual funds product mutual funds that invest in other mutual funds.

# 2.4 How Mutual Funds are Organized and Run

It is tempting to think of a mutual fund as a monolithic entity, however, this is out very accurate (Gitman, L J Joehnk M D 1999). The various functions of the fund such is investing, record keeping. Safekeeping and others are normally split among two or more companies. This is because besides the fund itself, which is organized as a separate corporation and is owned by the shareholders, there are several other main players. The other players include the management company, the investment advisor, the distributor, the custodian and the transfer agent. Their various functions are outline below

- The management company runs the funds daily operations. They are that create the funds in the first place. Usually, management firms also serve as investment advisors to their clients
- The investment advisors buy and sell the stocks and bonds and otherwise oversee the portfolio. Usually, three parties participate in this phase of the operation: the money manager, who actually runs the portfolio and makes the buy and sell decision securities analysts, who analyze securities and look for viable investment candidates; and traders, who try to buy and sell big block of securities at the best possible price.

- The distributor sells fund shares either directly to the public or through certain authorized dealers (such as major brokerage ho see and or commercial bank) When you request a prospectus and sales literature you deal with the distributor.
- The custodian physically safeguard s the securities and other assets of a fund without taking an active role in the investment decision. To discourage foul play, an independent party (a bank in most cases) serves in this capacity.
- The transfer agent keeps track of purchase and redemption requests from shareholders and maintains other shareholder records.

The separation of duties is designed for just one thing. To protect mutual fund and investor/shareholder. Obviously, as an investor can lose the value of your funds stock or bond holdings. However, this is really the only risk if loss, because the chance of your ever losing money from fraud, scandal, or a mutual fund collapse is actually quite low-almost nonexistent. As still another safeguard, each fund must have a board of directors, or trustees, elected by shareholders and charge with keeping tabs on the management company and renewing it contract.

### 2.5 Mutual Fund Performance

The first study of mutual fund performance was in 1969 by Michael Jensen who concluded that there was no evidence that earned greater than a risk-adjusted return.

Since the Jensen study there been over 300 performance studies which have agreed with

the Jensen conclusion. Below is a list of some of the studies and brief conclusion.

- Recently, Hendricks, Patel and Zechkhauser (journal of Finance, 1993) concluded that short-term mutual fund performance persists with the poor funds performing poorly in the future and the goods performing well in the future
- B. Malkiel (Journal of Finance, 1995(using all funds with at least one year of existence between 1971-1991 finds that no strategy, including buying Forbes recommended funds, outperforms a passive strategy
- M Gruber (journal of Finance1996) finds that buying the top docile firms and selling
  the low docile firms gives a 28 basis point in performance per year over a riskadjusted return for a group of funds that begun 1984 (dead funds included in sample
  and ending in 1994.
- Carhart (Journal of Finance, 1997) examines all mutual funds that had at least one
  month of existence between 1962-1993 (no survivorship bias) finds that common
  factors explains the persistence in the performance of top mutual funds. He finds that
  expense ratios, turnover and load fees (12b=1 charges) are significantly and
  negatively relate to performance.

All these studies find that risk -adjustment and survivorship bias a critical issue in measuring performance. Not just adjusting survivorship bias as much as 1.4% per year to estimated performance over a risk-adjusted return for funds that survive ten years (Estimates for one year bias are about 20 basis points).

Another school of thought led by one Polito's (1993) summary piece, suggests that mutual fund returns, after expenses (by before loads) are equivalent or superior so those available from a risk-adjusted market index., which implies that mutual fund managers

may have access to useful private information where they may generate excess returns sufficient to cover expenses. Grinblatt and Titman (1992) Hendricks, Patel Zeckhauser (1993), Goetzmann and Ibbotson (1994) and Volkmann and Wohar (199%) provided further support for market inefficiency by finding evidence of repeated winners among fund managers and positive performance persistence. In a recent study, Wermers (2000) decomposes mutual fund returns into stock picking talent, characteristics of stock holding trading cost and expenses, he finds that fund's stock picking enables them to cover their costs.

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### 2.6 Performance Measurement

According to Charles Ellis publication, "The Loser's Game" in the 1975m issue of the Financial Analysis Journal the investment business is built on simple and basic premise professional managers can best the market. That premise appears to be false. The ultimate outcome of the investment game is determined by who can lose the fewest points, not who can win the most. Money managing has been transformed from a winner's game to a loser's game (Bogle J C 1977) Thus when considering s fund's volatility; an investor may find it difficult to decide which fund will provide the optimal risk-reward combination. Over the year various theories have evolved to establish risks. The optimal portfolio theory uses volatility to establish risks and states a guideline for determining how much of fund's volatility carries a higher potential for return. One examination of the relationship between portfolio returns and risk is the efficient fronties, a curve that is a part of the modern portfolio theory as shown in figure 2 below. The curve forms from a graph plotting return and risk indicated by volatility, which is

represented by standard deviation. According to the modern portfolio theory funds underlying on the curve are yielding the maximum return possible given the amount volatility (Croome S, 2003)

Performance measurement according to Bill Baker is easier assessed using the Morningstar style box. Morningstar has down the world of domestic mutual fund into small medium and large cap funds and by objective, growth, value or blend.

Once you know which style "box a fund is in you can compare it with the other mutual fund that are similarly classified, and in may cases to a relevant index fund (www. fool. com/about /staff/billb.html.) Alternatively four statistical measure namely standard deviation, Beta, R—squared and Alpha provide the knowledge for applying for premise of the optimal portfolio theory which uses volatility to establish risk and states the guideline for determining how much of a fund's volatility carries higher potential for return.

#### 2.6.1 Standard Deviation

Markowitz (1952) suggested the use of standard deviation as a measure of risk. This metric measures the dispersion of returns from a central average value. The metric has distributional properties that allow inferences to be drawn. For instance, if the returns produced by a fund follow a bell-shaped normal distribution then 95 times out of a hundred the return should be within plus or minus two standard deviations of the long term average. The greater the standard deviation, the greater the fund's volatility.

#### 2.6.2 The Sharpe Index

The Sharpe ratio is a risk-adjusted measure developed by the Nobel Laureate William Sharpe. Markowitz (1952), the founder of Modern Portfolio Theory (MPT), suggested that investors choose optimum portfolio on the basis of their expected return and risk characteristics. As noted above, the overall risk of a portfolio is measured by the standard deviation of its returns. Sharpe used this concept to build a "reward to variability" ratio which has become known as the Sharpe index. The metrics is calculated suing standard deviation and excess return (i.e. return above a risk free investment) to determine reward per unit of risk (FMRC.2002) The higher the Sharpe ratio the better the fund's historical risk-adjusted performance. In theory, any portfolio with a Sharpe index greater than one is performing better than the market benchmark (FMRC.2002).

## 2.6.3 Jensen's Alpha

Jensen's Alpha is also a reward to risk measure. However, it uses a different concept risk. To explain, there is the need to realize that this measure's framework is taken from the capital asset pricing, model (CAPM). In this model, among the assumptions, it is taken that every investor holds a diversified portfolio. This allows investors to diversify away some of their investment risk, leaving them exposed only to systematic" or non-diversifiable market-related risk.

Jensen's Alpha uses only systematic risk for scaling a portfolio return. Alpha measure the deviation of a portfolio's return from its equilibrium level defined as the deviation return from the risk-adjusted expectation for that portfolio's return. For ranking

purposes, the higher the alpha, the better the performance. The fund beats the market, on a systematic risk adjusted basis, if Jensen Alpha is greater than zero, and vice versa (FMRC)

#### 2.6.4 Treynor Index

A third performance measure is the Treynor index. This is calculated in the same manner as the Sharpe index, using excess returns on the fund, but the excess return on the scaled by the beta of the fund, as opposed to the fund's standard deviation of returns

Of these three traditional measures, the regression-based Jensen's 'Alpha" is most commonly used in academic research. It provides a measure of whether a manager beats the market, as well as suggesting the magnitude of over/under performance.

## 2.7 Survivorship Bias

Performance studies face a problem called "survivorship bias". This arises because some funds disappear during the period being studies. They may close or merge or data on them may become unavailable. The extent of a survivor depends on past performance of the managed fund industry. This is because the high-performance will tend to be over-represented in the sample. Funds with poor performance will tend to be merged or closed and will drop out of the sample. This may lead to predictable biases in empirical work on managed fund performance

#### 2.8 Performance Persistence

Performance persistence can be defined as a positive relation between performance ranking in an initial ranking period and the subsequent period (Cahart 1997). Two forms of persistence, absolute and relative, have been distinguished in the literature. A fund possesses absolute performance persistence if it is able to consistently beat a specific benchmark. This has implications for the Efficient Market Hypothesis or the speed which information is reflected into security prices. This also has implications about the merits of actively managed versus index fund. On the other hand, a fund possesses relative performance persistence if its performance is consistently above the average performance of a cohort of funds. Evidence of relative has implications for investor choices between funds.

Many of the early studies were prompted by the development of the Modern Portfolio Theory (MPT) and thus focused on performance relative to a market benchmark. More recently greater emphasis has been placed on the issue of performance persistence. The academic studies use two main techniques to study performance persistence. One approach is a regression analysis of risk-adjusted returns from a benchmark Jensen's alpha). The studies than examine the correlation between alpha is the prior period and the later period (Charhart 1997)

The second approach is to compare return (not risk adjust) between funs is similar asset categories. Medians or quartiles are used to compare rankings in the prior period and the later period. This is contingency table approach (FMRC,2002) Going through the process of comparing mutual funds returns to an appropriate index or index fund should

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reveal to you that the track record of most managed mutual funds is terrible unimpressive. Some of course will beat their appropriate indices or index funds, but it is a very, very rare fund indeed that consistently outperforms the market (www.fool.com/Aout/staff/billb.html).

#### 2.9 Risk Disclosure

The growth in the mutual fund industry in recent years has been explosive. (The Financier, Volums3,1996). Which broader use come the need investor and their advisors to have more and better information concerning the nature of investment the funds undertakes. At its annual meeting in July 1996, the Financial Economist Roundtable examined the issue of mutual fund disclosure and reached the following conclusions:

- Current disclosure practices in the mutual fund industry are inadequate Investors and their advisors need more information to help them assess the risks associated with investments in mutual funds
- Fund disclosure should go beyond the reporting of historic return variability
- Fund Managers should provide estimated of the principal risk factors that are likely to influence returns in the future

These recommendations underlie the importance of risk disclosure and allied issues concerning mutual funds. The SEC in America in response to this has brought to the surface some intriguing efforts to distill sophisticated risk analyses to the form that individual investor and defined contribution plan participants can understand and use (Arterian, 2002). According to Roland Kahn, research director at BARRA, the Berkeley-based quantitative research firm would like to see the SEC would like to see a single

summary measure for mutual fund disclosure based on current portfolio holdings (<a href="www.assetpub.com/archive/ps/96-04psapril/april96ps57.html">www.assetpub.com/archive/ps/96-04psapril/april96ps57.html</a>). In his opinion Kahn believes standard deviation is the most appropriate single definition of risk but he thinks that funds should do more than just quote standard deviation as a measure of part performance. To support his line of reason Kahn recommends applying econometric forecasts of standard deviation and correlations of actual portfolio holding to forecast risk. Kahn says other measure such as downside risk, shortfall probability, and value at risk all suffer from ambiguity in of interpretation, lack of statistical clarity forecasting difficulty and dependency on individual investor performances.

Another school pioneered by Michelle McCarthy, managing director of Bankers Trust Global Investment Management has implemented a similar measurement system to monitor risk in mutual fund as well as other investment vehicles. Based on the bank's "risk adjusted return on capital "(RAROC) system. It quantifies seven types of risk: credit risk interest rate risk, option risk, equity risk, liquidity risk, and operating risk, RAROC is adapted to measure the degree to which a portfolio might under perform either in absolute terms or relative to a benchmark, within a specified probability over a specified period. Israelsen, a Professor from the University of Missouri in his comment to the SEC proposes a new and thus an untried measure "delta" which is calculated by taking mean return divided by the standard deviation. Delta is a variation of the Sharpe ratio, but because it substitutes average return for the risk-free return it is applicable to both stock and fixed-income portfolios. According to Israelsen, Delta summarizes the concept of mean return and volatility in one number but then is not a stand-alone

measure. A fund's delta is only relevant when compared to other funds with the same broad investment objectives.

## 2.10 Mutual Funds and their operations in Ghana

According to Darko, E O(2003), the Ghana stock Exchange has been in operation since 1990 listing over forty(40) companies and raising more than a total capital of ¢235,46 billion (\$173.67 million) for these listed companies. Total market returns over this period is 4043% which compares favorably with financial instruments returns like dollar (2087%) and the famous government treasury bills (3066%) as at 2006. It is sad to note however that the Ghanaian investor has not benefits much from this performance. Statistics show that most of the companies are 70% owned by foreigners whilst the remaining 30% are in the hands of few Ghanaians. Most Ghanaians are familiar with the susu scheme where a group of people pool their monies together and give it to one member (Darko E O 2003) The group starts the contribution again to give the proceeds in to next beneficiary till every member get their share. Susu scheme are not invested into earned returns, hence members lose potential income from investments and the real value of their contributions reduces with time (Darko E O 2003). The mutual fund on the contrary is invested to make returns and hedge against depreciating the real value of your investment.

Analysts say that the emergence of mutual funds and unit trusts are indications of the development of the country's capital markets and gives investors other alternatives to invest. Currently there are more than six (6) major mutual funds listed on the stock market. They are the Horizon fund, a hybrid mutual fund by National Trust Holding

Company (NTHC), the Fortune funds by Strategic African Securities limited, M-Fund and EPECK by Databank. However by 2003 other investment houses caught mutual concept and therefore decide to be a part of these investment signaling a strong performance of the economy.

Some of these funds include: The Horizon fund, managed by NTHC, Strategic African Securities (SAS's) Fortune fund, HFC's Equity Fund and Databank's Money Market Fund. Most of these funds are equity funds, while NTHC's Horizon Fund is a balanced fund where money is invested in both capital and money market instruments

## 2.11 Patronage of the Stock Market

Treasury bill rates have been comfortable high ranging from 19% in 1992 to 47% in 1997. This trend discouraged alternative forms of investment. Also investors have not been properly educated on the operations of the stock exchange. This is evident in the misconception some investors had in investment in Ashanti Goldfields Company (AGC), where some investors thought they will be given bars as shareholders. It is important to note that high Treasury bill returns tend to be short lived because the rates affect interest rates and any government who wants to secure its mandate and to remain popular must endeavor to bring Treasury bill rates down to lower the cost capital. However current trends seem to suggest that the government has successfully lower the treasury bill rates and a lot more people are participating on the Ghana Stock Exchange. Recent over subscription of IPO's on the stock exchange is indication of increasing interest of people in finding alternative investments. Also the Treasury bill returns have been significantly

low and thus alternative instrument such as stock mutual funds and money market funds substituted the hitherto 'valued form' of investment-treasury bills.

## 2.12 Legal environment for mutual fund operations

An amendment of PNDC law 333, the Securities Industry Act,2000,Act 590, set the pace and tone for the regulatory environment required for the operation and running of mutual fund in Ghana. These regulations were further concretized in the Legislative Instrument 1659 on unit trust and mutual funds which was passed into law in November 2001. The Legislative Instrument (1659) provides the legal and regulatory framework for the operation of mutual funds and unit trusts in Ghana. This legislatives instrument LI 1695 allows the Securities and Exchange Commission to go ahead with the licensing of prospective operation in the industry (SEC Annual Report 2001). Also, institutions such as the Ghana Stock Exchange, the Securities Exchange Commission and Bank of Ghana provide the regulatory environment required for the operation of an effective and efficient financial environment.

According to section 49 of LI 1699 investors should provide annual and half-yearly investor's reports in respect of each annual and half-yearly accounting period in order to facilitate the review of the performance of the scheme by the holders of interest. The Legislative Instrument is explicit of the content expected in such report as indicated subsections 2a through to 3f of section49. The instrument enjoins mutual funds to submit to the Securities Exchange Commission as investor's report also on an annual and half-yearly basis. In section 50 of the Legislative instrument it is emphatic that no sale of

interest should be made to investors/any person unless that person has been issued with a free copy of the most recent half-yearly investor's report.

As per their operations and regulations mutual funds are required in section 93 of the Legislative Instrument (LI) 1659 include performance data or estimated yield in their scheme particular and upon request from the Commission justify the contents of their calculations. Also the section makes reference to the fact that no forecast of the scheme's performance should be made in any of its document



#### **CHAPTER THREE**

## 3.0 RESEARCH METHODOLOGY AND INSTITUTIONAL PROFILE

#### 3.1 Introduction

The preceding Chapter looked at the review of the relevant literature. This Chapter seeks to outline the methodology of the research paper and the institutional Profile of Anidaso.

## 3.2 Methodology

Kolb and Rodriguez (1993) argued that there are three well-accepted methods or indexes in the literature for evaluating the performance of mutual funds. These indexes are the Sharpe index, Treynor index and Jensen's alpha. Most of the early studies on mutual funds' performance have used one of these three indexes.

Treynor (1965) criticized mutual funds' performance in comparison to other funds' returns or by averaging returns over a number of periods. He recommended a new predictor of mutual funds' performance, which incorporates the volatility of a fund's return. It measures the excess returns over a riskless investment per each additional unit of market risk. This ratio takes into account the systematic risk instead of total risk. Therefore, the higher the Treynor ratio, the better the performance under analysis.

Treynor ratio is calculated as follows:

Treynor ratio = 
$$\frac{R_p - Rf}{\beta}$$
 (1)

Where Rp = Average annualized return of the fund

$$Rf = Risk-free rate$$

## $\beta$ = Beta of the fund

Sharpe (1966) suggested a measure for the evaluation of portfolio performance. Sharpe index attempts to measure the fund's performance relative to a specified risk-adjusted return. When a portfolio earns return greater than the benchmark market equilibrium return, it is said to exhibit a good performance. Sharpe explains, in context of modern portfolio theory, that the expected return on an efficient portfolio, E (Rp) and its associated risk  $(\sigma_p)$  are linearly related:

$$E(Rp) = Rf + \beta \sigma p \tag{2}$$

Wherein Rf is the risk-free rate and  $\beta$  is the risk premium.

The Sharpe ratio is very useful for comparing different portfolios, in terms of risk-adjusted return. The ratio shows the extent to which an investor earns additional returns for additional risks undertaken. It is calculated by defining the 'excess return' as the return on a risky investment in excess of the return on a risk-free investment which is obtained by subtracting the risk-free rate from the return of the portfolio. Then, the annualized Sharpe ratio is calculated by dividing the annualized excess return by the standard deviation of the return as shown below:

Sharpe Ratio = 
$$\frac{Rp - Rf}{\sigma p}$$
 (3)

Where  $\sigma p$  = Standard deviation of portfolio return

The advantage of using the Sharpe ratio for evaluating portfolios is that, it does not depend on the choice of a benchmark. Sharpe scrutinized 34 open-end mutual funds (over the period 1954-1963) and came across considerable variability in the Sharpe ratio, ranging from 0.78 to 0.43. He gives two reasons for the results. Firstly, the cross-sectional variation is either random or due to high fund expenses, and/or secondly, the difference is due to the management skills.

Jensen (1968) examined the performance of mutual funds with a model that statistically measures a fund's performance relative to a benchmark. The estimating equation is:

$$Rj t - Rf = \sigma j + \beta j (Rb - Rf) + Uj t$$
(4)

where the  $\sigma$  is termed as Jensen's alpha that gives us an idea of the forecasting ability of a manager who contributes to fund's returns, and the error term Ujt is expected to be serially independent. The value of  $\sigma$  can be either positive or negative. A positive value indicates superior security price forecasting. A negative value may indicate any of the two following explanations: poor security selection or the existence of high expenses.

In this study on the performance of Anidaso mutual fund, the analysis has been done in two parts. First, returns (not risk adjusted) between Anidaso fund and that of the GSE All-Share index were compared. Second, various tests to evaluate the performance capacity of Anidaso mutual fund and that of the general market were also conducted. Sharpe ratio, Treynor ratio and the Jensen's alpha were used to evaluate the returns, which are calculated as an average over a 3-year period. Then they were ranked

according to the Sharpe rules. The rankings reveal whether or not all analyzed Anidaso fund outperform the market on a risk-adjusted basis.

Data for the study cover January 2006 to December 2008. The data include monthly net asset values of Anidaso Mutual Fund, 91-day Treasury bill rate and a weekly GSE All-Share Index. These data were obtained from New Generation Investment Services Limited, managers of Anidaso Mutual Fund, Ecobank Ghana Limited for the Treasury bill rates and Ghana Stock Exchange for the GSE All-Share Index.

GSE All-Share Index was chosen as the appropriate benchmark because the Anidaso Fund has objective of investing at least 70% of the Fund in the traded stock of companies listed on the Ghana Stock Exchange. The remaining 30% will be invested in fixed deposits, cash and letters of credit (Scheme particulars, May 2005).

Regression equation (4) was used to estimate the alpha and the beta values. In order to calculate the three ratios, we use simple returns to calculate the rate of return on the net asset value, and the formula used is as follows:

Simple returns: 
$$R_t = \frac{NAV_t - NAV_{t-1}}{NAV_{t-1}} \times 100\%$$

Where NAVt denotes the net asset value at time t,

 $NAV_{t-1}$  denotes the net asset value at time t-1, and Rt denotes the return at time t.

The annualized return of the mutual fund was compared with the annualized return of the benchmark that is the market return for the three years (2006-2008) under study.

In other words, an attempt was made to find out whether the mutual funds have been able to outperform the market or not. Annualized results are calculated from monthly data by multiplying the average monthly return by 12 and the standard deviation of monthly returns by the square root of 12. The benchmark with which the performance of fund asset was compared is the GSE index. If the mutual fund has outperformed the market, it implies that it has earned an excess return. Similarly, if the market return has performed over and above the mutual fund returns, then this signifies that the company has underperformed.

Excess return for year A = Fund return for year A - Market return for year A

#### 3.3 Profile of Anidaso Mutual Fund Limited

### 3.3.1 Incorporation

The Anidaso Mutual Fund Limited was incorporated as a private limited liability company under Ghanaian Law on March 19, 2004. The company was converted to a public limited liability company by a special resolution passed by members on August 22, 2004 and reincorporated as a public limited liability company on October 22, 2004.

#### 3.3.2 Authorized Business

The nature of the business which the company is authorized to carry is:

To achieve a long-term capital growth by investing in a diversified portfolio of equity securities listed on the Ghana Stock Exchange and / or other regulated financial markets and money market securities.

## 3.3.3 Nature of the Company

Anidaso Mutual Fund Limited ("The Fund") is an open-end mutual fund investing primarily in equity securities listed on the Ghana Stock Exchange and / or on other regulated financial markets and money market securities.

## 3.3.4 Promotion of the Company

The promoters of the company are namely:

Samuel Kofi Afrane (Prof.)

Kwaku Dwumor Kessey (Dr.)

Rt. Rev. Yinkah Sarfo

**Kwame Agyemang Tuffuor** 

Ernestina Fredua Antoh (Mrs)

# 3.3.5 Constitution and objectives of the fund

Name of the Scheme

Nature of the Scheme

## **Date of Establishment and Duration**

The Scheme was established on March 19, 2004 with unlimted duration

## **Investment Objectives of the Fund:**

The investment objective of the Fund is to systematically grow the monies provided by investors by investing in listed companies on the Ghana Stock Exchange (GSE) with good potential for high returns or in any other regulated financial instruments. The Fund seeks a combination of capital appreciation and current income for share holders.

## **Fundamental Investment Policy**

The Fund is established under the existing law. The investments to be undertaken will be of the hybrid type, i.e. funds shall be invested in a combination of stocks, bonds, and other securities. At least 70% of the Fund will be invested in traded stocks. Although the funds will be managed to achieve maximum returns, due to the inherent risk in stocks the total attainment of the objectives of the investment cannot be invested in companies that practice good business ethics. Depending on the market conditions, the weighting of funds allocated to other securities apart form stocks will change from time to time. An appreciable liquidity shall be maintained to facilitate the redemption of securities and also to take advantage of investment opportunities.

#### **Investment areas**

The Fund is authorized to invest in any sector of the economy or geographical area and t employ a variety of investment techniques to hedge against market and currency risks to the extent available and permissible by law. The manager may enter into hedging transactions allowed by law. Notwithstanding the availability and permissibility of hedging transactions, the manager, will the prior approval from the SEC, will only engage in hedging activities from time to time and only when it seems such activities t be appropriate and prudent.

Investment in Schemes or Property managed by the Manager or its Associates

The Manager is authorized to invest in other Collective investment Schemes whether managed by the Manage, its associates or by any other person. The Property of the Scheme many be invested in the property which is managed by the Manager or by an associate of the Manager.

**Limitations on Investment** 

Except with the prior approval of the Commission, the manger shall not undertake the following on behalf of the Scheme:

- Invest in Commodities, Futures of Options;
- 2. Invest more than 10% of the net asset value of the Scheme in any type of Real estate other than the securities of Real estate companies that have engaged in Real estate investment activities;
- invest more than 25% of the net asset value of the scheme in securities issued
   by a single issuer;
- 4. Invest more than 10% of the net asset value of the scheme in any particular class of securities issued by a single issuer;

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- Invest more than 10% of the net asset value of the scheme in other Collective
   Investment Schemes;
- invest more than 15% of the net asset value of the scheme in securities not listed or quoted or quoted on an authorized and Stock exchange;
- Purchase securities on method, except that the Manager many obtain such short term credit as many be necessary for the clearance of purchases and sales of securities constituting or to be included in the assets of control of a company in which investment has been made.
- Make any investment that will result in the Manager or the scheme gaining management control of a company in which investment has been made;
- 9. Make short sales of securities or maintain a short position;
- 10. Acquire any securities which are unpaid or partly paid for;
- 11. Apply; any part of the assets of the scheme in acquisition of an investment which is likely to involve the scheme in any liability, contingent or other wise.
- 12. Enter into underwriting or sub-underwriting contracts in relation to the subscription or purchase of any investment;
- 13. Invest in any securities of a class in a company or other body if any officer or collective officers of the Manager of the scheme own more than 5% of the total nominal amount of the securities;
- Borrow more than 10% of the net asset of the Fund at the time of borrowing and only for liquidity purposes.
- 15. Enter into any hedging transaction expect with prior approval by the Securities and Exchange Commission and unless is covered. Such hedging

transactions and all other hedging transactions not closed shall not exceed 10% of the net asset of the Fund.

## **Dividend Policy**

It is the intention of the Fund to invest all its net investment income, if any. Dividends, if any shall be shall be declared on an annual income allocation date, which shall be the last Friday of August of each year.

## **Borrowing Powers**

The Board of Directors may at any time upon the request of the Manager borrow for the account of the scheme, any monies whether in local or foreign currency for the sole purpose of enabling the Manager to meet requests for redeeming interests in the scheme

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## Maintenance of Prudent Levels of Liquidity

In the interest of prudence and efficient management of the scheme, the Manager will maintain prudent levels of liquidity.

#### Winding Up of Scheme

Any business entity stands the risk of failure and as such if the Funds has to wing up it shall be done in accordance with the provisions of the Companies Code, 1963 (Act 179). A liquidator may be appointed by the Company through a resolution. The liquidator shall divide amongst the shareholders the whole or part of the company's assets which shall be made of either the kind of invested assets or of different types. The liquidator shall set

long as values for assets that are of different types other than invested assets as long as the values are of fair prices. He many also determine an appropriate method of sharing the assets between the members.

## **Accounting Date**

The accounting period of the scheme of the Fund shall be from the first day of January and end on the last day of December in each year.

## PARTUCLARS OF ADMNISTRATORS OF THE FUND

The Manager of the Anidaso Mutual Fund is the New Generation Investment Services (NGIS). NGIS is a private liability company incorporated under the Companies Code, 1963 (Act 176) on March 18, 2004.

The address of the registered office and principal place of business of NGIS is:

NGIS has an issued share capital of \$\&\psi 1,000,000,000\$ which has fully been paid for.

NGIS has a five member board of directors, which is made up of the following:

Table 3.0 The nationalities and occupations of the Board of Directors of Anidaso Mutual Fund.

Name	Nationality	Occupation
Dr. Sam Afrane	Ghanaian	University Lecturer
Mr. Kingsley Adu	Ghanaian	Chief Finance Officer
John Erasmus Frimpong	Ghanaian	Retired Banker
Phillip Yaw Amakye	Ghanaian	Investment Banker
Kwame Ampofo Kusi	Ghanaian	Treasury/Investment Exec.

Source: Author's Field Survey, 2009

#### The Custodian

The Custodian of the Anidaso Mutual Fund is Barclays Bank (Ghana) Limited Bank is a private limited liability company incorporated under the Companies Code, 1963 (Act 176) on December 29, 1970. The Custodian is a wholly owned subsidiary of Barclays Bank Plc, a public limited liability company registered in the United Kingdom. Barclays Bank (Ghana) Limited is licensed by the Securities and Exchange Commission to provide custodial service.

The address of the registered office and principle place of business of Barclays Bank (Ghana) Limited is:

Barclays House High Street, Accra Barclays Bank (Ghana) Limited has an issue share of 1,000,000 ordinary shares of no par value with paid-up capital of \$\psi\$1 billion.

The Principal business activity of Barclays Bank (Ghana) Limited is banking.

#### The Auditors

The Auditors of the Fund is Parnell Kerr Forster.

The address of the registered office and principal place of business of Parnell Kerrr Forster is:

Adum Road P.O. Box 976 - Kumasi.

#### The Lawyers

The Lawyers of the Fund is my lord chambers.

The address if the registered office and principal place of business of my lord chambers is:

SAT Building, P.O. Box 3903 - Kumasi

## The Registrars

The Registrars of the Fund is New Generation Investment Services Limited.

The address of the registered and principal place of business of New Generation

Investment Services Limited is:

Cocobod Jubilee House, 1st Floor, Adum - Kumasi

P. O. Box UPO 603 - Kumasi, Ghana.

#### **Characteristics Of Interest In The Fund**

## **Type of Interests**

Interest in the Fund will be income shares. Each interest represents one undivided share in the property of the Fund

#### **Income Shares**

An income share is a share in respect of which income, if any, is to be distributed.

#### **Nominal Value of Share**

All shares to be issued will have a nominal value of \$1,00.

**Entitlement of Shares** 

All shares are entailment to equal participation in the income and property of the scheme.

A shareholder's right in respect of the scheme as represented by his or her shares is that of a right as a shareholder in the company.

#### **Evidence of Shares**

Contact Note will be issued to shareholders for the purchase of shares and will be evidence of title to his or her shares, although the register will ultimately be conclusive evidence.

## **Voting Rights**

Shareholders are entitled to vote on election of Directors and other matters submitted to shareholders' vote. The voting rights of share are as follows:

If there is a show of hands, every member present at the meeting in person or by proxy shall have one vote; and

If there is a poll every member present at the meeting in person or by proxy shall have one vote for every share held.

## Valuation of property, charges, distribution and fees

#### **Determination on Net Asset Value**

The Manager of the Fund will at 4.00pm every business day when the Ghana Stock Exchange is open for trading determine the Net Asset Value of the Fund.

The Net Asset Value (NAV) per share will be computed by dividing the value of the Fund's assets (the value of its assets less than its liabilities) by the total number of shares outstanding at such time.

# The following valuation methods will be used in valuing the Fund's assets

All listed equities for which market quotations are readily available will regardless of purpose price, be valued at the last sales on the date of determination.

Unlisted equity securities will be valued using the Net Asset Value per share base on the last available financial statements subject to an adjustment upwards or downwards of up to 10% to take into account post – balance conditions must be made only in consultation with the board of directors.

Money market instruments shall be valued at their discounted values.

The Fund's direct investments (if any) will be valued at cost plus or minus any change in value as determined by a range of valuation techniques including, but not limited to discounted cash flow analysis and comparable market multiple analysis.

The Manager shall consult the Custodian on a quarterly basis to review the valuation of all direct investments made on behalf of he Fund.

The Manager will continually assess the methods of valuation and recommend changes where necessary to ensure that the Fund's investments are valued at their fair value as determined in good faith by the board of directors.

## **Manager's Remuneration**

The Manager shall be paid a management fee from the assets of the Fund.

The Management fee of 2.5% per annum shall be computed and paid at the end of each month based on the number of days within the period divided by the number of days in the year i.e 365 days or 366 days in a leap year. The management fee shall be paid out of the assets of the scheme.

The Management fee shall be payable out of the Fund's income. In the event that the Fund's income is insufficient the balance will be carried forward as a cumulative charge against subsequent incomes. The Board and the Manager by mutual agreement can authorize the Management fee to be calculate and paid at period s that monthly intervals provided the interest of the shareholders is not jeopardized.

#### **Custodian Remuneration**

The Custodian shall be entitled to an annual fee of up to a maximum of 1% of the value of the Property of the Fund. The fee shall accrue on the last business day of each calendar month and shall be equal to of the value of the assets as registered on each last business day of the month or as soon thereafter as possible. The fee shall begin to accrue from the closing date if the first offer of interest in the scheme.

The Custodian's fee shall be payable from the assets of the scheme. In addition, the Fund shall reimburse the Custodian for agreed upon out – of – pocket expenses incurred by the Custodian in connection with the performance of its duties as Custodian.

#### **Director's Remuneration**

The remuneration of directors of the Fund will be determined from time to time by the Board of Directors and approved by shareholders. The remuneration and other expense of directors shall be paid out of the assets of the scheme.

## Other Expenses

All the expenses allowed by law, including fees payable to Auditors, Registrars and Regulators will be paid of the assets of the scheme.

#### **Annual and Interim Allocation Dates**

Annual allocation of income shall be made to shareholders on the last Friday of February of every year. Interim allocations of income (if any) shall be made on the last day of August of every year. Allocations would be handled by the Custodian.

#### **CHAPTER FOUR**

## 4.0 DATA ANALYSIS, FINDINGS AND DISCUSSION

## 4.1 Performance of Anidaso Mutual Fund

From Table 1 the average monthly excess returns on the Anidaso fund ('excess return' as the return on a risky investment in excess of the return on a risk-free investment) are consistently higher than that of the GSE index (benchmark) from the period 2006 to 2008. In 2006, Anidaso fund managers were able to generate average excess monthly return of 1.09%. This rose to 13.11% in 2007 and then 5.04% in 2008. In 2006, the average monthly return on the general market (GSE All-Share index) was below that of the risk-free investment (91 day Government of Ghana Treasury Bill). However, in 2007 and 2008 the average monthly return on the general market was above that of risk-free investment. This observation shows that Anidaso Fund managers outperformed the general market on absolute basis where about 70% of their fund has been invested. Moreover, this could be attributed to the fact that the managers might have selected stocks which had average returns more than that of the general market. However, these returns are not on risk-adjusted basis. Additionally, comparing absolute returns, one is implicitly assuming that both Anidaso fund and GSE index are equally risky.

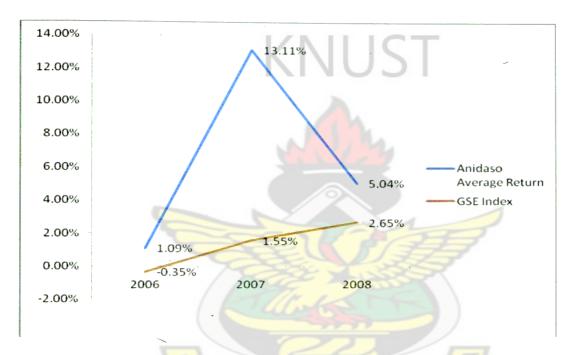
Table 4.0: Return in excess of the T-Bill for Anidaso Fund and GSE All-Share Index

	2006		2007		2008	
	R-Rf	Rb-Rf	R-Rf	Rb-Rf	R-Rf	Rb-Rf
Jan	0.013034	-0.01005	0.008416	-0.00675	0.124978	0.009318
Feb	0.013579	-0.00682	0.981894	0.000584	0.182481	0.035099
Mar	0.022102	-0.00081	0.489623	0.000141	0.198296	0.109691
Apr	0.005287	-0.00444	0.324389	0.000745	-0.10594	0.184239
May	0.002811	0.006014	0.241519	0.009039	0.21674	0.038932
Jun	0.018674	-0.01089	-0.78686	0.005372	0.05764	0.005653
Jul	0.014502	0.002624	0.040692	0.002626	0.035938	0.008917
Aug	0.007984	-0.00262	0.001988	0.032439	0.053419	0.045443
Sept	0.004487	-0.00229	0.079608	0.014423	-0.02343	-0.04141
Oct	-0.00116	-0.00154	0.169791	0.018978	0.003512	-0.03069
Nov	0.007112	-0.0053	-0.0416	0.08444	-0.04135	-0.0408
Dec	0.021977	-0.00567	0.064205	0.02411	-0.09717	-0.00695
ANNUAL						
EXCESS						
RETURN	0.13039	-0.04179	1.573669	0.186143	0.605111	0.317452
AVERAGE						
EXCESS	0.01086 -	0.00348 0.	13113	0.0155	0.05042	0.02645
RETURN						

R - Rf = Excess Return on Anidaso Fund (return on a risky investment in excess of the return on a risk-free investment)

Rb - Rf = Excess Return on GSE All-share index (return on a risky investment in excess of the return on a risk-free investment)

Figure 4.0: Return in excess of the T-Bill for Anidaso Fund and GSE All-Share Index



Source: Author's field survey, 2009.

# 4.2 Regression Analysis (Jensen's Alpha and Beta Values)

The result of the linear regression analysis  $(R - Rf = \sigma + \beta j (Rb - Rf) + U)$  of the monthly return on Anidaso fund and returns on market data in table 4.0 using Statistical Package for the Social Scientist (SPSS) is displayed in table 4.1

# Table 4.1: Jensen's Alpha and Beta Values

Table 4.1a: Summary output for 2006

Regression Statistic	S	
Multiple R	0.371167	
R Square	0.137765	
Adjusted R Square	0.051541	
Standard Error	0.007426	
Observations	12	
ANOVA		KNUST

#### **ANOVA**

					Significance
	Df	SS	MS	F	F
Regression	1	8.81E-05	8.81E-05	1.597764	0.234889
Residual	10	0.000552	5.52E-05		
Total	11	0.00064			

16	Standard				Upper
Coeffic <mark>ients</mark>	Error	t Stat	P-value	Lower 95%	95%
0.008833	0.00268	3.296322	0.008063	0.002862	0.0148
-0.58362	0.461716	-1.26403	0.234889	-1.61239	0.4451
	0.008833	Coefficients         Error           0.008833         0.00268	Coefficients         Error         t Stat           0.008833         0.00268         3.296322	Coefficients         Error         t Stat         P-value           0.008833         0.00268         3.296322         0.008063	Coefficients         Error         t Stat         P-value         Lower 95%           0.008833         0.00268         3.296322         0.008063         0.002862

The GSE-All Share index (market) explains 13.8 per cent change in the Anidaso fund return. Since the above 23.49 per cent significant level is more than 5 per cent p-value the 13.8 per cent change in Anidaso fund return explained by the market is insignificant and can be attributed to chance. The alpha and beta values for Anidaso fund are 0.009 and -0.5836 respectively. Since the alpha value is 0.81 per cent and well below the 5

percent p-value it is significant in explaining any change in Anidaso fund return. The beta value of -0.5836 is however insignificant with 23.49 per cent significant level which falls above the p-value of 5 per cent.

Table 4.1b: Summary output for 2007

Regression Statistics		_
Multiple R	0.21001	<del></del>
R Square	0.044104	IZNILIO
Adjusted R Square	-0.05149	KINUS
Standard Error	0.417437	
Observations	12	
		_ \

### **ANOVA**

					Significance
	Df	SS	MS	F	F
Regression	1	0.080399	0.080399	0.461392	0.512389
Residual	10	1.742534	0.174253		
Total	11	1.822933			

-		Standard				Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%
Intercept	0.185245	0.14445	1.282412	0.228627	-0.13661	0.5071
X Variable 1	-3.48801	5.135023	-0.67926	0.512389	-14.9296	7.953539

The alpha and beta values for Anidaso fund in year 2007 are 0.185 and -3.488 respectively. Since the alpha value is 22.86 per cent and well above the 5 percent p-value

it is insignificant in explaining any change in Anidaso fund return. The beta value of - 3.488 is also insignificant with 51.24 per cent significant level which falls above the p-value of 5 per cent.

Table 4.1c: Summary output for 2008

Regression Statistics		-
Multiple R	0.107109	_
R Square	0.011472	
Adjusted R Square	-0.08738	
Standard Error	0.115567	
Observations	12	
Ouscivations	12	

#### **ANOVA**

					Significance
	Df	SS	MS	F	$\boldsymbol{F}$
Regression	1	0.00155	0.00155	0.116054	0.740403
Residual	10	0.133557	0.013356		
Total	11	0.135107			

	370	Standard		Sarah Sarah		
	Coefficients	Error	t Stat	P-value	Lower 95%	95%
Intercept	0.04562	0.036222	1.259455	0.236468	-0.03509	0.126327
X Variable 1	0.18168	0.533307	0.340667	0.740403	-1.0066	1.369962

The alpha and beta values for Anidaso fund in 2008 are 0.0456 and 0.1817 respectively.

With 23.64 per cent, which is far above the p-value of 5 per cent, Anidaso's alpha value

is insignificant in determining its return. The 74 percent beta value which is far above the 5 per cent p-value is also insignificant.

# 4.3 Performance of Anidaso Mutual Fund on a Risk-Adjusted Basis

To compare returns, one needs to standardize for differences in risk. Kolb and Rodriguez (1993) argued that there are three well-accepted methods or indexes in the literature for evaluating the performance of mutual funds. These indexes are the Sharpe index, Treynor index and Jensen's alpha. These indexes measure performance on risk-adjusted basis. Most of the early studies on mutual funds' performance have used one of these three indexes (Nitish et al., 2009).

Funds are ranked according to the Sharpe rule, which states that in assessing the comparative merits of two funds we have to choose the fund with the higher Sharpe ratio. The Sharpe ratio for mutual funds is typically between 0.5 and 3. An annualized Sharpe ratio over 1 indicates that the fund had a 'pretty good' year. Using the rule of thumb, an annualized Sharpe ratio over 2 would then indicate outstanding fund (Nitish *et al.*, 2009).

Table 4.2: Summary of Performance Measurement-Anidaso Mutual Fund

THE PERSON AND THE PE	2006	2007	2008
Anidaso excess returns (annualized)	13.04%	157.37%	60.51%
Anidaso average monthly excess returns	1.09%	13.11%	5.04%
Standard deviation	0.026	1.41	0.374
Alpha	0.0088	0.1853	0.0456
Beta	-0.5836	-3.488	0.1817
Sharpes index	4.921	1.116	1.618
Treynor index	-0.223	-0.451	3.33
R square	0.138	0.044	0.011

Source: Authors field Survey, 2009

Table 4.3 GSE Index (the market benchmark)

	2006	2007	2008
GSE Index (annualised)	-4.18%	18.61%	31.74%
GSE index (average monthly)	-0.35%	1.55%	2.65%
Standard deviation	0.016	0.086	0.216
Beta	1.0	1.0	1.0
Sharpes index	-2.59	2.174	1.472
Treynor index	-0.042	0.186	0.317

Source: Authors field Survey, 2009

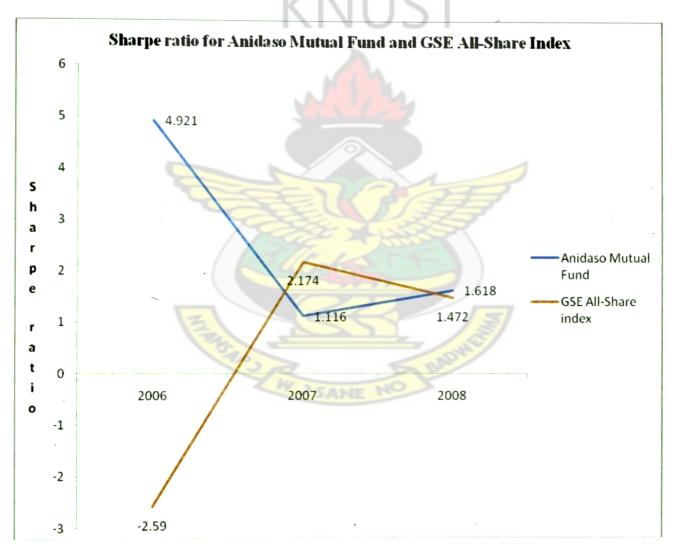
Table 4.2 contains the Sharpe ratio and the Treynor ratio. The coefficient for beta ( $\beta$ ) (the risk of the fund has been measured on basis of monthly return for the 3-year period compared to that of the local equity market) and Jensen's alpha ( $\sigma$ ) are also shown in Table 4.2.

Portfolios with higher returns would be deemed to be a good investment only if the additional returns are due to smart investment, i.e., with no additional risks undertaken. Though, the Sharpe ratio itself does not tell anything, it needs to be compared with the Sharpe ratio of market. In general, both funds have earned excess return over the risk-free investment, which is obtained by subtracting the risk-free rate from the return of the portfolio.

As shown in Table 4.2, Anidaso mutual fund has values of Sharpe ratios between 1.116 and 5. From this point of view, Anidaso mutual fund might be characterized as pretty

good. The market returns have values of Sharpe ratios between -2.59 and 2.2. However, in comparing Anidaso fund performance to that of the market using Sharpe ratio, Anidaso fund outperformed the market (benchmark) for year 2006 and 2008 but fell short of beating the market in 2007. This indicates that for the period the Anidaso fund had a high risk-adjusted return per unit of total risk performs better than the aggregate market portfolio (GSE index).

Figure 4.1: Sharpe ratio for Anidaso Mutual Fund and Market Portfolio



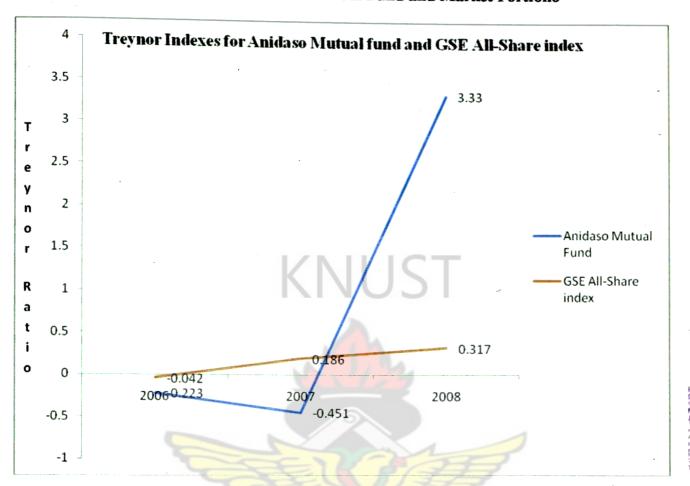
Source: Author's field survey, 2009.

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Furthermore, Treynor ratio is another comparison ratio, which measures the excess returns generated by a fund for each unit of market risk that it undertakes. The calculation of the excess return is similar to the one under the Sharpe ratio. However, for market risks, the beta of the fund is used. Given that this ratio takes into consideration the market volatility, the ratio is considered to be a better measure of performance. The higher the value of the ratio, the better the performance of the portfolio (Nitish *et al.*, 2009). Moreover, this measure only uses systematic risk, it assumes that the investor already has an adequately diversified portfolio and, therefore, unsystematic risk is not considered. Therefore, this performance measure should only be used in cases of diversified portfolios.

From Table 4.2, Treynor index for Anidaso mutual fund in 2006 is -0.223 and that of GSE index is -0.042. This indicates that the market outperformed the Anidaso fund in 2006 on a risk-adjusted basis, which is contrary to conclusion regarding the relative performance of the two portfolios derived by the Sharpe ratio of performance. Moreover, using Treynor index Anidaso Fund again underperformed the market on risk-adjusted basis in 2007. This trend changed in 2008 where the Anidaso fund outperformed the market on risk-adjusted basis using Treynor index. The Treynor index for Anidaso Mutual Fund in 2008 is 3.33 and that of the market is 0.317. Figure 4.2 depicts the pictorial nature of the performance.

Figure 4.2: Treynor Indexes for Anidaso Mutual Fund and Market Portfolio



Source: Author's field survey, 2009.

Nevertheless, Sharpe and Treynor ratios are similar in a way since they are a measure of the excess returns that a fund generates for the risk undertaken. Given that for a well-diversified portfolio, the total risk should be equal to the systematic risk, the rankings based on Sharpe measure and the Treynor measure should be identical, as the total risk is reduced to systematic risk. The results in Table 4.2 show that the rankings obtained by applying both the Sharpe and Treynor rules are not the same. The difference in the rankings shows that total risk and systematic risk in this case are not equal.

From Table 4.2, Anidaso fund has beta between -3.488 and 0.1817 and that of the market is taken to be 1. A beta of 0 implies that its price is not at all correlated with the market; the asset is independent. A positive beta implies that the asset generally follows the market and a negative beta also implies that the asset generally does not follow the market. However, if the beta of a fund is at 0.2, it indicates that the fund is less risky than the market. That is when the market is falling or rising rapidly, the fund has certain resilience which prevents wide volatility. Moreover, if the beta of a fund is greater than 1, it indicates that the fund is more volatile than the benchmark index. Besides, if the market goes up by 10%, a fund with a beta of 3.0 should also go up by 30%; similarly, if the market drops by 10%, the fund should also drop by 30%. It is obvious from Table 4.2 that Anidaso mutual fund has a beta of -3.488 in 2008. Thus, indicating that the fund was more risky than the market in that year. This indicates that Anidaso was more volatile than the benchmark in the year under consideration. Additionally, beta values lower than 1 indicates that the funds are 'balanced', i.e., capital is allocated between stocks, bonds and cash (Nitish et al., 2009). With this assertion one may conclude that Anidaso fund in 2008 the fund allocated capital between stocks, bonds and other securities.

From Table 4.2, Anidaso fund has positive Jensen's alpha for all the years under consideration. This indicates that manager of the fund has a superior ability in market stock selection. Moreover, since all the years the fund has the positive alpha, it specifies that the fund has earned on average a premium above that expected for the market at the same level of risk (variability) as the fund. Additionally, it also indicates that the portfolio manager is superior in stock selection compared to the market.

## **CHAPTER FIVE**

# 5.0 SUMMARY OF FINDING, RECOMMENDATION AND CONCLUSION

# 5.1 Findings

# Performance of Anidaso Mutual Fund

- In 2006, Anidaso fund managers were able to generate average excess monthly return of 1.09%. This rose to 13.11% in 2007 and then 5.04% in 2008. In 2006, the average monthly return on the general market (GSE All-Share index) was below that of the risk-free investment (91 day Government of Ghana Treasury Bill).
- However, in 2007 and 2008 the average monthly return on the general market was
  above that of risk-free investment. This observation shows that Anidaso Fund
  managers outperformed the general market on absolute basis where about 70% of
  their fund has been invested.

# Performance of Anidaso Mutual Fund on a Risk-Adjusted Basis

• Anidaso mutual fund has values of Sharpe ratios between 1.116 and 5. The market returns have values of Sharpe ratios between -2.59 and 2.2. However, in comparing Anidaso fund performance to that of the market using Sharpe ratio, Anidaso fund outperformed the market (benchmark) for year 2006 and 2008 but fell short of beating the market in 2007. This indicates that for the period the Anidaso fund had a high risk-adjusted return per unit of total risk performs better than the aggregate market portfolio (GSE index).

- Treynor index for Anidaso mutual fund in 2006 is -0.223 and that of GSE index is -0.042. This indicates that the market outperformed the Anidaso fund in 2006 on a risk-adjusted basis, which is contrary to conclusion regarding the relative performance of the two portfolios derived by the Sharpe ratio of performance. Moreover, using Treynor index Anidaso Fund again underperformed the market on risk-adjusted basis in 2007. This trend changed in 2008 where the Anidaso fund outperformed the market on risk-adjusted basis using Treynor index. The Treynor index for Anidaso Mutual Fund in 2008 is 3.33 and that of the market is 0.317.
- Anidaso fund has beta between -3.488 and 0.1817 and that of the market is taken to be 1.
- Anidaso fund has positive Jensen's alpha for all the years under consideration. This indicates that manager of the fund has a superior ability in market stock selection. Moreover, since all the years the fund has the positive alpha, it specifies that the fund has earned on average a premium above that expected for the market at the same level of risk (variability) as the fund.

#### 5.2 Recommendations

 The analysis has produced some interesting results and one avenue for future research is to extend the investigation to other investment companies and emerging markets, especially those in the sub region. The incentives for further research on other emerging markets come from the limitation of the studies which currently exist.

- Further research that will replicate these studies using more comprehensive and representative samples of firms from Ghana would shed more light on issues raised in this study and other related studies.
- Mutual fund in Ghana is still in the growth stage as the industry is expanding at an increasing rate. The intense competition is creating opportunities for growth. And competition will further heighten especially with the increasing presence of regional investment companies. The industry focus should be on promotion and education to mobilized funds which may translate to good financial performance.
- The procedure for selecting the various stocks should be maintained since Sharpe
  ratio revealed a positive trend in stocks selected from the exchange. Moreover since
  alpha indicated a positive value through out the year, it is an indication that the fund
  outperformed the market.

## 5.3 Conclusions

The study seeks to evaluate the performance of Anidaso Mutual fund as a case study using various performance measurements such as Sharpe index, Treynor index and Jensen's alpha. These indexes were used because it measures performance on risk adjusted basis. Anidaso fund has positive with the various indexes for all the years under consideration. This indicates that manager of the fund has a superior ability in market stock selection. Moreover, since all the years the fund has the positive alpha, it specifies that the fund has earned on average a premium above that expected for the market at the

same level of risk (variability) as the fund. Additionally, it also indicates that the portfolio manager is superior in stock selection compared to the market.



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