

**EFFECTS OF HERD BEHAVIOUR ON TRADING VOLUME AND PRICES OF  
SECURITIES AT NAIROBI STOCK EXCHANGE**

**BY**

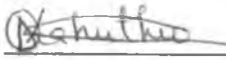
**DAVID GITONGA KAHUTHU**

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REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF BUSINESS  
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## DECLARATION

I declare that this research project is my original work and has not been presented to any other University for the award of Degree.

Signature 

Date 8/11/2011

David Gitonga Kahuthu

D61/72707/09

This project has been submitted for examination with my approval as University supervisor

Signature  Date Nov 8, 2011

W. Nyamute

Lecturer, Department of Finance and Accounting,

School of Business

University of Nairobi

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Lastly, to Almighty God who makes all things work out in the fullness of time

## DEDICATION

Dedicated to all my family members Jane, carol, Esther, Helen, Charles and especially Charles who had to know how to talk without my presence and to all hardworking people of our country.

## ABSTRACT

The study investigated the presence of Herd instinct behaviour and its effect on stocks volume and stock prices in Nairobi Stock Exchange. Herd instinct behaviour refers to action or activity without prior rational thinking as a result of influence from others. Although this behaviour is common in animals, it is nevertheless present in human beings as demonstrated by actions such as mob justice, panic cash withdrawal from banks, hostility of rivals in a sporting activity, hasty trading in stocks during initial public offers (IPO's), among others. Therefore, the study seeks to establish the effect of herd behaviour on volume of stocks traded and stock prices.

The researcher of the study used survey design integrated with empirical analysis with a view of determining relationships between herd instinct (independent variable) and securities traded volume and prices (dependent variables). Data was collected mainly from stock investors who either relied on financial analysis from experts or were influenced by others to engage in the stock exchange transactions. The empirical evidence data was provided by Nairobi Stock Exchange (NSE) and Capital Markets Authority (CMA). To determine the existence of herd behaviour concept among investors, chi-square ( $\chi^2$ ) method was used while the effect on traded volume was demonstrated through the use of statistical tools like graphs and charts. The study also indicated the effect of herd instinct behaviour on prices through the use of correlation model. The study indicated that during the period of herd instinct, there was a positive correlation ranging from positive 0.6 to positive 1.

The statistical tools used indicated that herd instinct behaviour had a direct effect on volume of stocks traded while correlation showed high degree of association between stock prices and stocks volume. The study has shown that herd instinct behaviour among investors have a direct effect on stocks traded and stock prices.

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## APPENDICES

## ABBREVIATIONS

NSE	-	Nairobi Stock Exchange
CMA	-	Capital Market Authority of Kenya
EMH	-	Efficient Market Hypothesis
CAPM	-	Capital Asset Pricing Model
CDS	-	Central Deposit Settlement
MOU	-	Memorandum of Understanding
CEO	-	Chief Executive Officer
CFO	-	Chief Finance Officer
SACCO	-	Savings and Credit Co-operatives.

## DEFINITION OF TERMS

- Herd Behavior - Describes how individuals in a group can act together without planned direction.
- Financial Bubbles - Trend of frened buying of stock with the ambition (greed) of earning more returns.
- Financial Crushes - Trend of frened selling of stock due to fear of loosing value in the funds invested.

# CHAPTER 1

## INTRODUCTION

### 1.1 BACKGROUND

Herd Behavior describes how individuals in a group can act together without planned direction. The term pertains to the behavior of animals in the herds, flocks and to human conduct during activities such as stock market bubbles and crashes, street demonstrations, sporting events, religious gatherings, episodes of mob violence and every day decision making, judgment and opinion forming. Thus, herd behavior applies to several situations in human life and the diverse theoretical approaches of herding Behavior illuminates the applicability of the concept to many domains ranging from cognitive neuroscience to financial economics ([http://en, wikipedia.org/Herd-behavior](http://en.wikipedia.org/Herd-behavior)). The heightened sensitivity of following actions done by others is well illustrated by recent theories of fads, trends and crowd behavior in a journal of political economy by Suchil, Hirshleifer and Welch (1992).

In Kenya the herd behaviour concept was largely witnessed in 2006, when Kengen IPO was issued. Herd behaviour for Kengen alone was rampant in that IPO price of Kshs 11.90 opened the market at Kshs 62 and stabilized at Kshs 38 for the year 2006. The IPO was oversubscribed and the NSE 20 share index increased substantially. The index has been in use since 1964 and measures the performance of 20 blue-chip companies with strong fundamentals and which have consistently returned positive financial results. Included in the Index are Mumias Sugar, Express Kenya, Rea Vipingo, Sasini Tea, CMC Holdings, Kenya Commercial Bank, Standard Chartered Bank, Bamburi Cement, British

American Tobacco, Kengen, Centum Investment Company, East Africa Breweries, EA Cables, Kenya Power & Lighting Company Ltd, and Athi River Mining. The index primarily focuses on price changes for these 20 companies.

Therefore, this study seeks to establish if herd behaviour has any effect on the traded volume and prices of securities. Overall, the study will show that there exist irrational investors who engage in trade due to peer influence and other psychological emotions.

The concept of herd behaviour belongs to the modern finance theories of Behavioural Finance. This concept postulates that some investors tend to follow decisions made by others in the same social group. This concept acknowledges that there is a natural desire for human beings to be part of the group, which in turn influences the decision making process. Thus, the Financial Logic reasoning depicted by efficient marketing hypothesis (EMH), Fama (1970), is replaced with group mob psychology which takes easy solutions instead of rigorous, financial analysis. Welch et al (2004) in the journal of political economy analyzed how information cascaded from one private individual to others. In essence, their theory stated that large trends, beliefs or fads begin when individuals ignore their private information and instead take cues from the actions of others which are not necessarily based on logical reasoning.

The herd behaviour may emanate from an individual who obtained information from stereotypes or may convince the group on the basis of past experiences. Mostly the herd behaviour results in financial overreaction. In overreaction, the individual obtains

information from the group and before the information is verified, the financial activity is already performed. As Bikchandani et al wrote, "If even a little new information arrives, suggesting that a different course of action is optimal, or people even suspect that underlying circumstances have changed (whether or not it has really changed), the social equilibrium may radically shift". When a group of people substitute their own thinking for that of the crowd, it is said to be Herd instinct or Herd Behavior. This behaviour can be seen during stock market crashes and bubbles when most individuals behave in a similar fashion, Albert Phung, Behavioral finance: key concepts-herd behaviour Retrieved from;

<http://www.investopedia.com/university/behavioral-finance/behavioral> and Gup

People are social creatures and they like being part of a team, club or society. In general, people like to belong and 'fit in' and most people find it difficult to do things that make them feel 'out'. Often, however, it is going against our herd behaviour that will help us to make the right investment decisions. In spite of extensive body of literature indicating that the capital markets are efficient, Fama (1970) behavioral scholars indicate that these markets are not perfectly efficient, Macguigan et al (2009).

The observation comes from various anomalies observed in stock exchange that are inconsistent with full efficient markets. For example, the speculative Bubble of the late 1990's that led to consistent increase of prices of internet stocks and their subsequent decline indicates trading behavior that may not be consistent with fully rational investment decision making. These anomalies have led to the development of new financial models suggesting that investors sometimes behave irrationally. Behavioral

finance (Herd behaviour included) seeks to understand how departures from totally rational decision making by investors and other market participants can help to explain otherwise curious market occurrences.

Thaler (1993), while appreciating that fundamentals and behavioral finance differ on right valuation of stock prices, agreed with Welch (2009) who made classification to show the difference between the standard financial model and Behavioral finance. The first classification reflect the financial fundamentalists view that financial prices will always reflect the best estimate of net present value (NPV) of all future cash flows. However, Olsen (1998) Behavioral finance researchers advocate that the standard finance model of rational behaviour and profit maximization can be true within specific boundaries but assert that it is incomplete model since it does not consider individual behaviour (Brown and Reily 2006)

The second classification involve financial analyst who believe that financial prices may sometimes deviate from the appropriate best estimate of future cash flows. They further assert that transactional costs make it practically impossible for investors to find unusually good bets. This classification fits well with fusion investment which was defined by Lee (2003) as integration of two (2) elements in investment valuation namely; fundamental value and investors' sentiment. The last classification (Welch 2009) consist of the view that financial prices regularly deviate from appropriate value and to an extent allow investors to make good bets. Bikhchiandani and Hirshleifer et al (1992) supported the view in the journal of political economy where they indicated that fads, trends and crowd behavior lead to information cascade which in turn influence stock prices in the organized stock markets.

The significance of Behavioral finance became very relevant when scholars attempted to explain the market bubbles of 1996. In 1996, NASDAQ rose with 23 percent, 14 percent in 1997, 35% in 1998 and 63% in 1999. According to Westerfield et al, NASDAQ lost about 40% in 2002 and 30% in 2001. The spectacular rise and fall of NASDAQ came to be known as greatest historic “bubble”. The explanation was that prices were inflated to economically ridiculous levels by irrational attitudes including herd behaviour until investors came to their senses which caused bubble to pop and prices plunged

## **1.2 STATEMENT OF THE PROBLEM**

A study by Brown (1999) examined the effects of noisy traders (Non professionals with no specific information) on the voracity of closed end mutual funds. Reilly et al (2006), stated that when there is a shift in market sentiments, influenced by herd behaviour, the traders move together, which increase the prices and volatility of these securities during trading hours. Clark and Startman (1998) find that noisy traders tend to follow newsletters, which in turn tend to “follow the herd”. In Kenya this was witnessed during the period of 2007, when stock prices rose to an index of 5325 on the 20 share price index. Stocks like East African cables rose from a price Kshs 40 to Kshs 360 within the same year.

Thus, this study seeks to show the contribution of Herd behaviour concept on prices over the short run before market can rectify it. Brown and Reilly (2006) noted that the major contributions of Behavioral finance researchers are explanations for the anomalies discovered by prior academic researchers and opportunities to derive abnormal rates of return, by acting on some of the deeply ingrained biases of investors.



The fund managers and financial experts have used financial models by financial scholars and realized that price predictions would many times differ with market prices. The models used for capital asset pricing model (Sharpe 1964, Litner 1965, Mossin 1966) have difficulties in implementation due to the computation of Beta.

The model used by Welch (2004) stated that the security value of any asset to be always equal to the present value of future cash flows had problems in estimating the growth in the companies' industry. EMH by Fama (1970) went close to reality but made assumptions which were not true that investors are always rational and make decisions independently. Tversky and Kahn examined the impact that behavioural activities had on investors to bridge the gap which had not been explained by conventional financial scholars. Practical market experiences have shown that investors are not always rational and that their actions are not always independent. Therefore, the deficiencies in the models necessitated study which would bring market results close to reality. The herd behaviour concept would indicate the influence of others in financial decision making. In general, this study seeks to show if herd behaviour concepts apply in the stock market (NSE) and the effects that it has on prices and (trading) volume.

### **1.3 OBJECTIVE OF THE STUDY**

To determine the effect of herd behavior on the trading volume and the prices of securities quoted at NSE.

### **1.4 SIGNIFICANCE OF THE STUDY**

The findings of this study will benefit a number of interested parties as follows:-

For the investing members of the public, it is imperative to know that although membership to a group (Herd) strengthens one's sense of belonging, it is nevertheless important to use financial analysts in making financial decisions.

The financial analysts need to now that Herd Behaviour influence investors decisions and hence the need to establish how that information can be beneficial to their clients.

To the financial regulator (CMA), as the regulator of the financial arena, it is imperative to know when Herd Behaviour is at play and possibly formulate policies to intervene to protect interests of the investing public.

To the Academicians, the study seals the gap in the behavioral finance on the effects that herd instinct concept has on both prices and volume of stocks traded

# CHAPTER 2

## LITERATURE REVIEW

### 2.1. Introduction

This is the core part of the study and the prime purpose of this chapter is to provide the readers with insight about the theory and other scholarly work done in the same field. The chapter provides a review of herd behaviour theory and other scholarly work in behavioral finance. Finally, to review the empirical studies on the subject of herd behaviour and its effect on stocks volume and prices in an organized stock exchange.

### 2.2 CONCEPTUAL FRAMEWORK

According to Fama (1970), the Efficient Market Hypothesis (EMH) explained that financial Asset prices (Stocks included) fully reflect all available information. The weak form efficiency incorporate all historical information, semi strong efficiency incorporate all publicly available information while strong form efficiency reflect all information which is both public and private information. Megginson et al(2008) recognized the strength of Behavioural Finance where herd behaviour is a concept and asserted that traders in financial markets are human beings who are subjected to all foibles and fads that bedevil human judgment. The human emotional feelings lead to irrational transactions and hence presence of biases and errors. Thus, these prejudices and errors cause prices to deviate from their “fundamental values” in ways that market competition does not eliminate in short duration.

When a group of people substitute their own thinking for that of the crowd it is said to be herd instinct or herd behavior. Trotter (1914), explained how people act in a group and thus popularized the herd behavior phrase in his book, "behaviors of the herd in peace and War". Morone et al (2004) analyzed a model of herd Behavior in a market context under two different scenarios. The first of these strands is the herd behavior in a non-market context. The seminal references are Banerjee (1992) et al and Welch (1992) et al, both of whom showed that herd behavior may result from private information not shared publicly. The second of the strands of literature motivating the paper was that of information aggregation in market contexts. Herd behaviour may at times emanate from overconfidence. Over confidence may in part stem from self attribution bias. Self attribution bias refers to people's tendency to ascribe any success they have in some activity, to their own talents while blaming failure on bad luck rather than their own ineptitude. Doing this repeatedly, will lead people to the pleasing but erroneous conclusion that they are talented. The herd behavior usually results in a mass movement in the market, either in favour of a stock's trade or against it and thus influencing prices in a short duration.

The four key conventional models of finance which dominated stock exchange trading in the 20<sup>th</sup> century can be enumerated as; portfolio allocation based on risk and expected returns (Markowitz, 1958), Capital Asset valuation in systematic and unsystematic risk commonly known as CAPM (Sharpe 1964), Capital structure theories (Modigliani 1958), theories of agency and efficient market hypothesis (Fama 1970). These financial economic ideas were all derived from the assumption of investors' rationality.

However, the models would not explain mundane questions like; what causes great seasonal fluctuations in traded volumes after specific events? Why do investors trade? How do they perform? How do they choose their portfolios and lastly why do returns vary across stocks for reasons other than risk? Reilly and Keith (2006) emphasized the major contributions of behavioral finance researchers as explanations on the anomalies discovered by prior academic researches and opportunities to derive abnormal rates of return by acting on ingrained biases of investors. Clearly, their findings support the notion that the stocks of growth companies typically will not be growth stocks because analysts become over confident in their ability to predict future growth. Behavioral finance research also supports the notion of contrary investing, confirming the notion of the herd mentality of analysts in the stock recommendations. The herd mentality enables stock analysts to realize quarterly earning estimates due to the recommendations made by the writers of newsletters. Also, it is important to recall the lose aversion and escalation bias that causes investors to ignore bad news and hold losers too long and in some cases acquire additional shares of loser to average down the cost. Before averaging down, the investor should make sure that he/she reevaluates the stock to consider all the potential bad news

During the past decade, there has been significant research in behavioral finance by investigators who contend that the standard finance theory model is incomplete since it does not consider implication of psychological decisions made by individuals (Reilly and Brown 2006). These research papers help explain many anomalies, the existence of

several biases and provide opportunities for excess returns. It is important to be aware of numbers of biases for two reasons: first, they can lead to inferior performance as an analyst and portfolio manager; second, it is possible to exploit them for excess returns. In Kenya specifically, the key question with many professional investors remains as, why should Safaricom and Kengen IPO's be over subscribed while the Cooperative Bank IPO was under subscribed? For Kenyan case, where information Asymmetry is very rampant, behavioral finance came into play with the concept of Herd Behaviour being suspected as the prime reason.

## **2.21 REVIEW OF GUIDING THEORIES**

Herd behavior was exhibited in the late 1990s as venture capitalists and private investors were frantically investing huge amounts of money into internet –related companies, even though most of the dotcom did not(at the time) have financially sound business models, Albert Phung retrieved from (<http://www.investopedia.com/university/behavioral>). The driving force that seemed to compel these investors to sink their money in to such an uncertain venture was the reassurance they got from seeing so many other do the same thing. A strong herd mentality can even affect financially sound professionals who may not be having firm conviction about economic models. The ultimate goal of a money manager is to follow an investing strategy to maximize a client's invested wealth. The problems lie in the amount of scrutiny that money managers receive from their clients whenever a new investment fad pops up. For example, a wealthy client may have heard about an investment gimmick that's gaining notoriety and inquires about whether the money manager employs a similar "strategy"

In many cases, it's tempting for a money manager to follow the herd of investment professionals. After all, if the aforementioned gimmick works out, his clients will be happy. If it does not, that money manager can justify his poor decision by pointing out just how many others were lead astray.

Herd behavior as the dotcom bubble illustrates, it's usually not a very profitable investment strategy. Investors, who employ a herd-mentality investment strategy, constantly buy and sell their investments assets in pursuit of the newest and hottest investment trends. For example, if a herd investor hears that internet stocks are the best investments, he will free up his investment capital and then dump it on internet stocks. If biotech stocks are all on the rise six months later, he will probably move his money again, perhaps before he has even experienced significant appreciation in his internet investments. Keep in mind that all this frequent buying and selling incurs a substantial amount of transactional costs, which reduces available profits. Furthermore, it is extremely difficult to time trades correctly to ensure that you are entering your position right when the trend is starting. By the time a herd investor knows about the newest trend, most investors have already taken advantage of the news and the strategy of wealth maximizing potential is lost.

People tend to be overconfident and hence overestimate the accuracy of their forecasts. Overconfidence stems partially from illusion of knowledge and partially from illusion of control. Overconfidence is particularly prevalent when people have special information or experience (no matter how insignificant) that persuades them to think that they have an

investment edge. In reality however, the overconfident traders do not out perform the market.

People are fearful of ambiguous situations where they feel that they have very little knowledge about possible outcomes. In experiments, people are more inclined to bet when they know the probabilities of various outcomes than when they are ignorant. In the investment world, traders are worried of stocks that they do not understand than stocks of local neighboring companies, herd behaviour –wikipedia, the free encyclopedia. Retrieved from [http://en.wikipedia.org/wiki/Herd\\_behaviour](http://en.wikipedia.org/wiki/Herd_behaviour)- herd behaviour in human societies.

Thaler et al (2003), described herd behaviour and informational cascade as the factors responsible for the irrational purchase of financial assets. Shiller (2000) in his best selling book “irrational exuberance” re-emphasized that stocks prices are not determined rationally. Thus, herd behaviour occurs when information is released to a group of investors about the importance of purchasing a certain stock and the clients either make a purchase without verifying information or transfers that information to a third (3<sup>rd</sup>) party who will make purchase of financial asset. Hung et al (1999) suggested that gradual diffusion of news causes momentum. The news cause either under reaction or over reaction because feedback traders induce others to act without critical thinking.

Traditionally, rational finance academics have negative feelings about behavioral finance (where Herd behaviour concept belongs) They assert that theoretical behavioral finance models are ad hoc in nature and designed to explain set facts. The response is that



behavioral models are based on how people actually behave, based on extensive experimental evidence and hence offering better explanation as explained by Tversky and Kahnman (2002). Another common objection is that empirical work is characterized by data mining. This implies that data is analyzed using several mathematical models like regression to denote a pattern. However, much empirical work has confirmed the evidence out of sample, both in terms of time periods as well as cross sectionally across different countries. Finally, it is often claimed that Behavioural Finance presents no unified theory. Unlike other models, for instance expected utility maximization theory which uses rational beliefs, behavioral finance uses all emotions attributable to an individual. While this contention is true as at now, the data unfortunately does not always agree with the theory. Thus, it appears that there is strong case to build upon some theories that are consistent with evidence than theories based on rational economics whose empirical support appears quite limited. The rational maximization theory is a normative theory explaining how people should behave and thus not superior to behavioral approaches which show how people actually behave

The author of the study recognizes that behavioral finance is too wide and the herd behaviour concept is only an item and thus concentrates on the scholarly work that would influence the research significantly. Prominent studies to explain patterns in stock returns were done by Daniel et al (1998, 2001), Barberis et al (1998) and Hong et al (1999). The first paper attempted to explain over confidence and self attribution. Self attribution is an attitude of attributing success to competence and failures to bad luck. Thus, they maintained that over confidence about private signals, causes over reaction and hence

phenomena like the Book to Market effect. Overconfidence causes long run reversals whereas self attribution allow prices to continue over reacting and hence momentum. In the long run however, there will be price reversals as prices go back to fundamentals as a consequence of Bayesian updating by agents.

The key questions which needs to be answered are; can psychological arguments about investors biases be tested in an ex ante manner? Sorescy and subrahmanyam (2006) test the argument of Tversky et al (1992) that agents over react to the strength of a signal (e.g. warmth of a recommendation letter) and underreact to its weight (the letter-writer's reputation). Using Analyst experience and the number of categories in the analyst revisions as proxies for weight and strength, they find some support for the hypothesis using covariance as a tool of measure.

## **2.22 LIMITS TO ARBITRAGE AND SURVIVAL OF IRRATIONAL TRADERS**

Since herd behaviors traders are irrational, two critical questions thus arise; why does arbitrage not remove any security mis-pricing? Why do irrational traders; who would loose money on average not get driven out of the market in the long run? Recently, progress has been made in answering both of the preceding questions. First Shleifer et al (1997) argue that arbitrage may be restricted because it would be costly to remove price inefficiencies. The study shows that if the rational buyers buy all securities which are mis-priced, they would have to use a lot of their funds, which in turn would push prices higher. During the time of disposal, the contrary arbitrates may not be able to remove all systematic mis-pricing due to risk aversion.

Regarding Herd Behaviour, the specific study was done by Brown (1999), the study was to examine the effect of noise traders (Non professionals with no special information) on the volatility of closed-end mutual funds. When there is a shift in sentiment, these traders move together which increases the prices and volatility of these securities during the trading hours. Clark and Statman (1998) find that noise traders tend to follow newsletter writers who in turn tend to follow "the herd" .The newsletter writers and the "Herd are almost always wrong" which contributes to excess volatility. Hence Buffett (2010) comment that there is need to be fearful when others are greedy and to be greedy when others are fearful.

Irrational traders would always be influential in the stock market due to their numbers and participation. De long et al (1991) argues that the irrational agents, being overconfident, can end up bearing more risks and hence earn greater expected returns in the long run. Secondly, Kule (1997) argue that even if agents are risk neutral, overconfidence acts as a pre-commitment to act aggressively, which causes the rational agent to scale back his trading activity. Finally, Hirshleifer et al (2006) argued that when stock prices influenced fundamentals by affecting corporate investments, irrational agents earn greater expected profits than rational ones. This happens because irrational agents act on sentiments sequentially. Agents who act on sentiments early benefit from late arriving irrational investors who push prices in the same direction as the earlier ones.

### 2.3 EMPIRICAL REVIEW

Welch (2004) used the Net Present Value (NPV) approach in gauging the correct prices of the Asset at any given time. The theory states that the stock prices reflect all the net present value of future cash flows to be obtained from that stock. Markowitz (1958) stated that investment decisions are made on the basis of risks and returns expected from a financial transaction. Thus, the investment with high risks would be expected to generate high returns. He used standard deviation to show that as risk involved in a project increases, the returns are also expected to increase. In Kenya where information asymmetry is proportionately high, herd mentality usually results in oversubscription. For instance in July 2004 KCB issued a right which resulted in an over subscription of 12.25 %.(NSE fact book 2010, pg8)

Capital assets pricing model Sharpe (1964) Mossin (1966), Litner (1965) improved Markowitz Model (1958) by introducing asset free rate in determining asset valuation. The contention was that investors would only take risks in the investment if the returns expected were higher than risk free rates offered by the state. The investors would only be compensated for taking undiversified risks. In calculating for the beta, Sharpe (1964) Mossin (1965), Litner (1966), used linear regression. They did postulate that the price of any asset would be determined by the risk free rates and the beta of systematic risk

Ross (1976) acknowledged the use of risk free rates but changed the model from linear regression to multivariate equation. Accordingly, the price of any asset would be equal to risk free rates and all the other independent variables with the firm. The models used in stock price determination assumes that investors prefer more wealth to less and that they

will always exercise this logic during transactions of financial nature but the practical situations indicate that investors are not always rational particularly due to influence by other herd members. Thus, the study seeks to gauge whether herd behaviour have any impact on trading volume and prices for securities quoted at Nairobi Stock Exchange.

Early empirical studies by Black et al (1972) and Fama et al (1973) suggest a significant positive cross-sectional relationship between security Betas and expected returns, which directly supports the capital asset pricing model Sharpe (1964), Litner (1965), Mossin (1966). However, Fama and French contradict findings of CAPM by asserting that relationship between expected returns and market Beta is insignificant. Jagannathan and Wang (1996) find a modest relationship between conditional Beta and expected returns when the market is expanded to include human capital. However, the practical market prices have always differed with any price predicted using any of the models recommended by conventional scholars. The market always reflect the herd mentality of investors and hence differences in prices.

Haugen and Baker (1996) findings, indicate that the strongest determinants of expected returns are past returns, trading volume and accounting ratios such as return on Equity and price/Earnings ratio. They find no evidence that risk measures such as systematic or total volatility are material for the cross section of returns, however, Baker et al (2004) argue that the negative relation between returns and past volume is driven by optimistic investors generating volume, and their optimism becoming reversed in the subsequent periods.

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Coral and Markowitz (1999) show that the preference for local stocks extends to mutual fund managers in the sense that such managers tend to show a proclivity for stocks situated in the regions that managers are based. The habit is even evident among the professional money managers, Hong et al (2005) argue that mutual fund managers are more likely to buy stocks that other managers in the same city are buying, suggesting that one factor impacting portfolios is a word of mouth effect by way of social interaction between money managers. This implies that Herd Behaviour concept is also present among fund managers.

Studies of Hong et al (2004) address the same habit among financial agents. The study shows that the agents deviate from using survey and stock market analysis to swing judgment from what they heard in social interactions. Thus success in stock trading especially where agents are paid in commission is influenced by social activities like church attendances, weddings and parties. The agents influence majority of the participants as to which stocks to choose from. Barber et al (2004) document a wealth transfer from individuals to institutions via stock market. The study shows that some groups of investors invest for the sheer pleasures that trading provides in a manner similar to watching a sport or a film and thus the influence to fellow members. For instance, Golfers attending a golf tournament are likely to invest in a particular company for the pleasure of association that transaction will generate.

Herd Behaviour in Buying of stock is also prevalent when investors imagine that they have received important confidential information like stock split. Thus, Grinblatt et al

(1984), Desia and Jain find evidence of drift following stock splits. In Kenya, the NSE records show that Merger of CFC and Stanbic bank caused investors excitement that the CMA had to intervene because CFC shares shot from Kshs 120 to Kshs 320 within a day. The likelihood of increased dividends also cause herd instinct behaviour and hence the influence of prices to the concerned stocks. Michael et al 1995 found out that dividend initiations lead to positive drift and dividend cuts lead to the opposite effect. A similar study was carried out by Mandalo (2007) who asserted that dividend information act as a signal to influence stock prices.

Karungari G.F (2006) noted that herd instinct plays an important role in her study of empirical relationship between trading volume and returns volatility at the NSE. She noted that volatility was partially caused by the markets sentiments (irrational public behavior common in herd behaviour concept) which can be prevalent in one region or across regions. Herd behaviour was influencing Stock purchase in the East African Region and by Dec 2004, the NSE recorded an equity turnover of 22.32 billion which represented a 46.37% increase in comparison with similar period of 2003.

Cherutoi (2006) in her study on the existence of the reverse weekend effect in the NSE, noted the importance of herd behaviour. Werah (2006) also noted the role played by friends, colleagues and other investors in influencing investment decisions. People do this in hope of guarding their capital investment and at the same time expecting to make desired returns (Rusel, 1995). Werah (2006) noted further that irrationality and herd behaviour were witnessed in 2006 at NSE when investors liquidated other securities in



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hope of purchasing Kenyan IPO, which resulted in mass deposit refunds and unutilized capacity of idle money which was against the professional advice given by the financial experts.

# CHAPTER THREE

## RESEARCH METHODOLOGY

### 3.1 INTRODUCTION

This chapter gives a brief description concerning the research survey design and its integration with empirical analysis. In this chapter, the researcher identified the target population and how samples were drawn from it. It also discusses the data collection instruments and procedures used. Finally, it includes how data was analyzed.

### 3.2 RESEARCH DESIGN.

The study researcher used an empirical design to determine relationships on variables. According to Mugenda and Mugenda (1999) the empirical study is used to establish trends or patterns depicting changes in the dependent models after interaction with one or several independent variables. The main purpose of the research design was therefore, to determine reasons for the current status of the phenomenon under study. The chosen design was effective since the researcher wanted to find out whether herd behaviour concept had any effect on prices and volume of business conducted by the Nairobi Stock Exchange.

### 3.3 POPULATION

The population of the study consisted of all clients of the nineteen (19) Brokerage firms registered by the CMA and were operational as at December 2010. Since the research project was based on the effect of Herd Behavior on price and volume of Business for securities quoted by the NSE, the study targeted 100 clients spread in all the brokerage

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firms. These were top, middle and low level managers of asset management firms, investment groups and individual investors.

### **3.4 SAMPLE**

Stratified random sampling was used in the study in capturing the inputs of employees of the brokerage firms, the employees and Board members of the investment cooperatives.

The main reason the sampling methodology the study was chosen was due to the fact that the population was heterogeneous. There were differences among the respondents in terms of gender, age, academic qualifications, business experiences, marital status, and source of initial Capital and economic challenges that faced them.

For the purpose of the study, all brokerage firms were considered which enabled the data to be as representative as possible. The program was drawn and the schedule was attached as per appendix (iii) on the tentative dates that the respective brokerage firms were visited. Prior arrangements with either the brokerage firms or the investment cooperative were made early through the public Relations manager of their respective firms.

### **3.5 DATA COLLECTION**

Data collection was a crucial part in gathering the required information with a view of achieving the research objective stated. Basically, the main or primary data was collected from the questionnaires. It involved interviewing respondents from each stratum. Secondary data involved collecting data using questionnaires provided to the employees of Nairobi Stock Exchange (NSE) and Capital Market Authority (CMA).

Two types of questionnaires were issued, one to individual investors who made

investment decisions, the other to brokerage firms and NSE to provide data. Interview guide was attached as appendix (iv)

The questionnaire consisted of two parts. The first part of the questionnaire comprised of background questions about name, gender, age, education, postal and physical address, assets invested in stocks regulated by NSE, who advised on which stocks to be invested in among others. Structured questions and some dichotomous questions were used to collect the information from respondents. The same contexts of questions were issued to all interviewees. Questions were very specific with a range of answers. The structured questionnaires were multiple choice questions in which the researcher was provided with a choice of answers and respondents were asked to select one or more of the alternatives. The dichotomous questions had only 2 response alternatives, yes or no. The researcher also used likert scale' (consider on 1-4 points scale) to measure the respondents perception of making investment decisions.

The second part of the questionnaires involved how decisions were made. The researcher wanted to know if the investor was in a group or was acting individually, if was in a group, were decisions made democratically and if democratic which class of people swayed decisions in specific direction. They were asked about the frequency of the meetings and if they were given report after making investments (The questionnaire was attached as appendix v). The second questionnaire was addressed to stock Brokerage firms and Nairobi stock exchange. It included the name of the firm, postal and physical Address, Telephone number, Email number among others. It provided seasons when investments were high and when they were low. It further asked if they would provide

data for stock before and after the high season. Further still, they were requested to provide indices for both 20 stock indexes and all stock indexes. Raw data was manipulated and analyzed well as provided by Nairobi Stock Exchange and CMA.

### **3.6 DATA ANALYSIS**

The data was pre-processed and analyzed using Statistical Package for Social Sciences (SPSS). The type of statistic used included descriptive statistics. According to Blalock (1978) as cited by Nyadwi (2003), the descriptive statistic aimed at giving a concise picture of the data by organizing, summarizing and presenting data. This category of statistics included among other things, the mean, mode, percentages, frequencies and tables. Mean scores were appropriately used to show how NSE volume of business compared during high and low seasons common during the herd instinct period. Possibly to show how volume of business was before Herd behaviour applied, the volume of business during Herd behaviour period and volume of business during ordinary times. The correlation showed how the prices were moving in the same direction and hence influenced volume and prices. Percentages and frequencies were equally used to show the increase in trade volume graphically and number of occurrences. The findings of the study were presented in a tabular form for ease of interpretation and reporting.

Equally, factor analysis was carried out to identify the factors which are responsible for the increase or decrease in the volume of trade. According to Mugenda and Mugenda(1999)factor analysis attempts to cluster those indicators that seem to correlate highly with each other. It is used to study the patterns of relationship among many

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independent variables, with the goal of discovering something about the nature of independent variable that affect them, even though those independent variables were not measured directly. In addition, correlation was used to show the relationships between variables. Thus, correlation meant an inter-relationship or degree of association. Where correlation was being used, the results between independent and dependent variables showed that either they are correlated (partially or perfectly) or they are uncorrelated. Movements or changes in one direction of traded volume caused changes in the same direction for the price resulting in positive correlation while the negative correlation is observed if movement in one variable causes opposite movement in the other variable. The model which was used to measure the degree of association is known product moment of co-efficient of correlation ( $r$ ).

In the research, the author attempted to show the degree of association between herd behavior and prices of security. Since herd behaviour influences volume, then the impact of traded volume and price demonstrated the effects of herd behaviour on security prices.

$$\text{Thus } r = \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum X^2 - (\sum x)^2} \times \sqrt{n \sum y^2 - (\sum y)^2}}$$

Where  $n$  = the number of samples

$x$  = price of securities

$y$  = volume of shares traded

To test on the volume of business, the statistical tool like percentages and graphs are used while the Chi-Square method will be used to show existence of herd instinct behaviour among investors.

$$\text{The model for Chi-Square } (\chi^2) = \sum \frac{(O-E)^2}{E}$$

Where O=observed frequency of any value

E=Expected frequency of any value

It compared the actual values and the expected values.

### **3.7 ESTABLISHING DATA VALIDITY AND RELIABILITY**

Validity was concerned with whether the findings were really about what they appeared to be representing, Saunders et al (2007) Thus, validity was highly linked with the credibility of the research, Silverman (1997) In order to establish the validity of the instrument, four clients of the brokerage firms each coming from different firms were pre-tested using the research instrument. The questionnaires distributed scored the way the researcher expected them to score, which showed the researcher that the groups understood the instruments for what's was intended and was therefore valid.

Reliability referred to the extent to which data collection techniques or analysis procedures yielded consistent findings. It was assessed by posing three questions Easter by et al (2002), would the measures yield the same results on other occasions? was there

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transparency in how raw data had been used to draw conclusions? Would similar conclusions be reached by other observations? The test and retest process was to establish the reliability of the instrument. The constructed questionnaires were distributed at intervals more than once to the same group of persons, to discover how consistent each element of the group was scoring. The researcher pointed out all the questions carefully and wrote responses of the respondents from their verbal expressions.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 TESTING HERD INSTINCT USING CHI-SQUARE- $\chi^2$

The study seeks to show the existence of herd instinct behaviour using the  $\chi^2$  [chi-square test]. The  $\chi^2$  is used to compare actual results with the observed distribution.

#### 4.12 ACTUAL DATA FROM INVESTORS

	Men	Women	Youth	Total
Influenced by the Group	40	25	15	80
Not Influenced by the Group	14	3	3	20
<b>TOTAL</b>	<b>54</b>	<b>28</b>	<b>18</b>	<b>100</b>

The data is testing if herd instinct behaviour exists among investors at 5% level of significance and at two (2) degrees level of freedom.

#### 4.13 COMPUTATION OF EXPECTED FREQUENCIES

To compute for the expected frequencies, the study assumed the scenario in the null hypothesis i.e. assume there is no difference in the proportion of people influenced by the herd behaviour. The expected frequency in each cell is found by apportioning the total type of investors in the ratio (influenced by the group against not influenced by the group in the ratio of 80:20) the proportion of the ratio is multiplied by the totals in each column as shown in the table below.

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	Men	Women	Youth	Total
Influenced by the Group	43	22	14	79
Not Influenced by the Group	11	6	4	21
<b>TOTAL</b>	<b>54</b>	<b>28</b>	<b>18</b>	<b>100</b>

The  $\chi^2$  calculation is shown in the table below.

Observed Frequencies (O)	Expected frequencies (E)	(O-E)	(O-E) <sup>2</sup>	$\frac{(O-E)^2}{E}$
51	43	+8	64	1.49
3	11	-8	64	5.82
20	22	-2	4	0.18
8	6	-2	4	0.67
9	14	-5	25	1.78
9	4	+5	1	0.25
				10.19

It is imperative to find  $\chi^2$  (chi-value) from the table. This is done by establishing the degree of freedom. It is normally computed as  $(R-1)(C-1) = V$

Where R = Number of rows

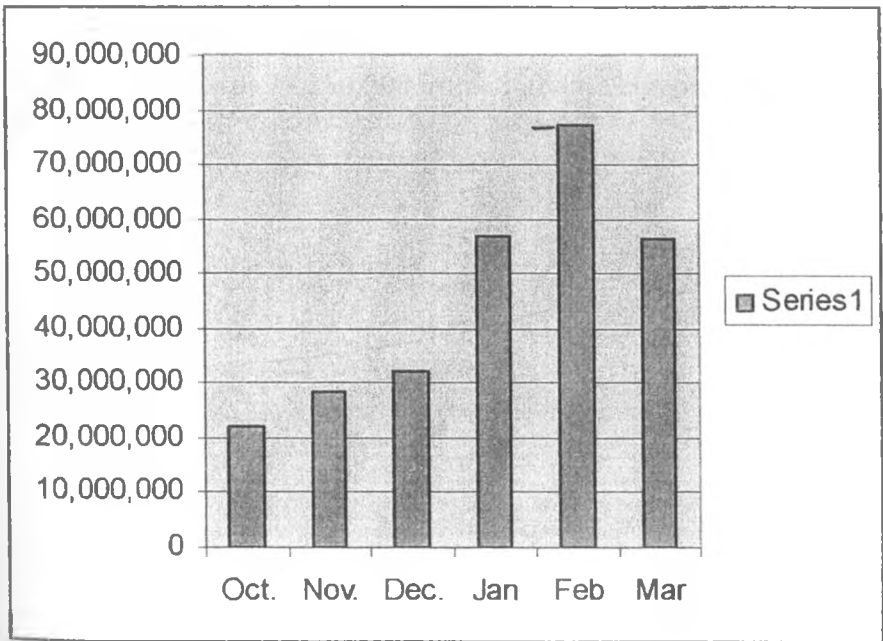
C = Number of columns

This  $V = (2-1)(3-1) = 1 \times 2 = 2$

The value of the cut off of  $\chi^2$  (chi) for 2 degrees of freedom from table IV is equal to 5.991. Since the calculated value (10.19) is greater than the table value 5.991 the study concludes that for ordinary investors, majority are influenced by others and hence the presence of herd instinct behaviour among investors.

#### 4.2 GRAPH SHOWING THE VOLUME TRADED AND THE EQUITY TURNOVER FOR THE PERIOD OCT 2003 –DEC 2004

From the table in appendix (VI), it can be seen that herd behaviour was highest at the month of January and February where the volume traded was increasing and the share prices were increasing as evidenced by the two graphs.



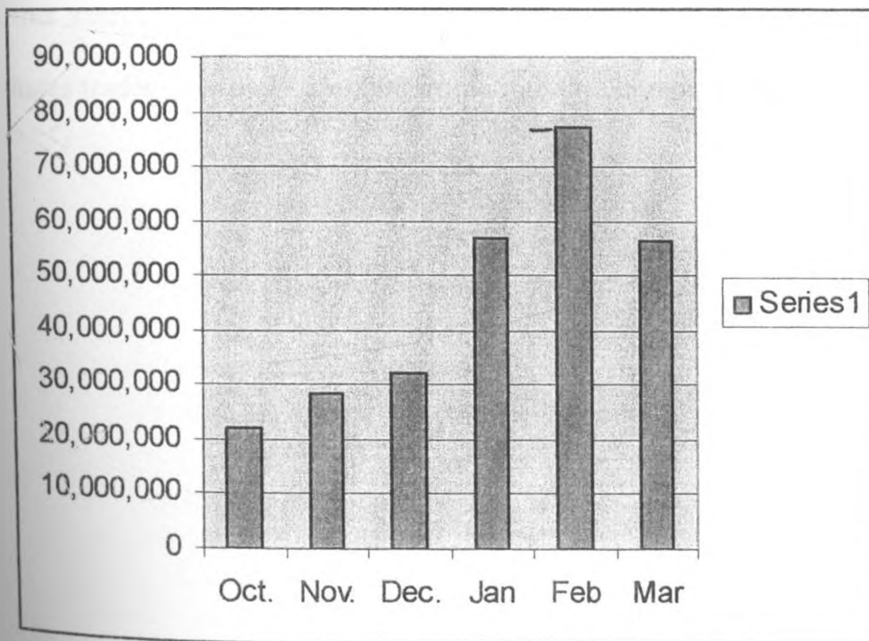


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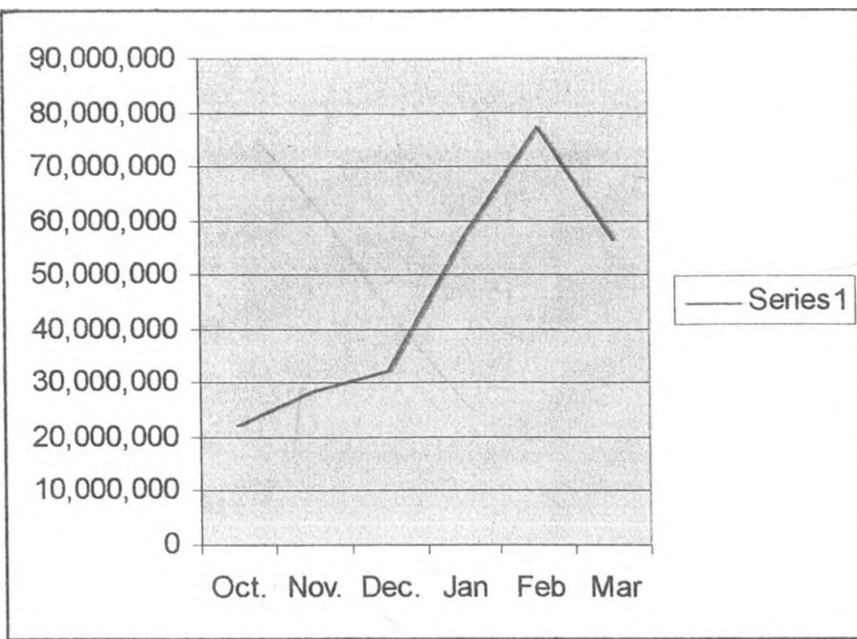
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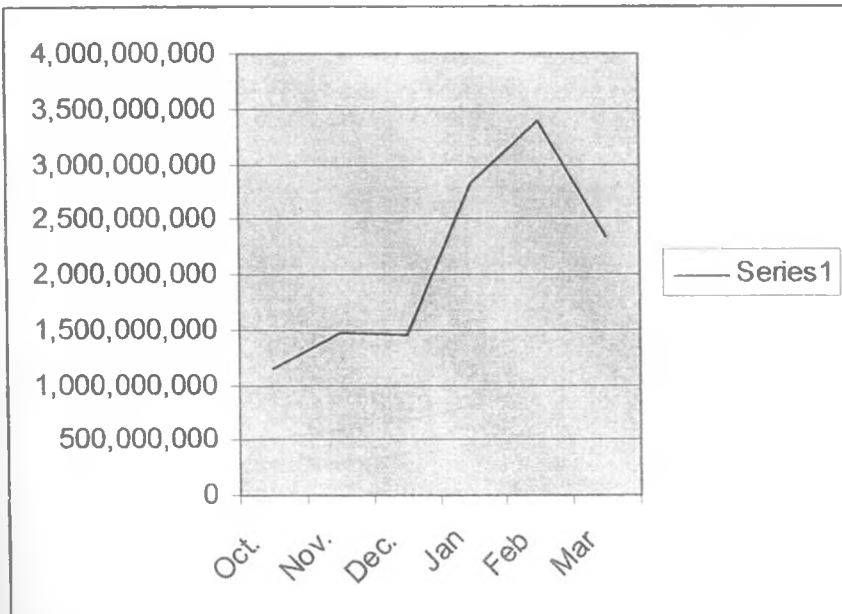
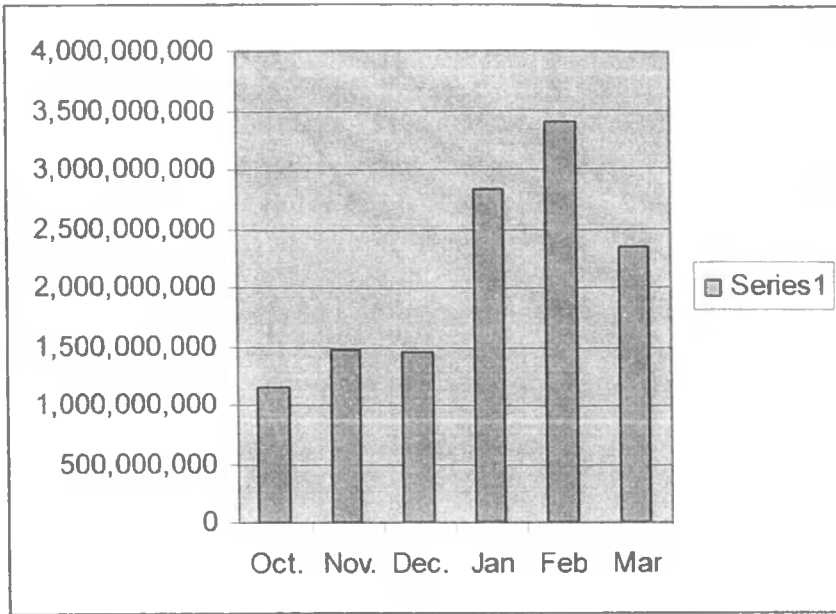


90M  
3M



From appendix (vii) Nov. 2003 to February 2004 the volumes of shares traded were on upward trend, implying that market sentiments were in favor of securities as opposed to other assets like land. The extreme of the herd behaviour was in March 2004 when the shares traded rose to 77,250,000 from, 56,835,723 representing 35.91% percentage rise.

### 4.3 GRAPH SHOWING GROWTH IN TURNOVER



From the graphs, it can be seen that volume of shares traded were on upward trend from October to March, implying that market sentiments were in favor of securities offered by the stock exchange. However, the price were rising and according to efficient market

hypothesis (EMH), if prices increase, the rational traders would stop buying and hence bring down the prices implying that some investors are not always rational due to the influence by others commonly known as herd behavior.

However, close scrutiny indicate that price were rising and quantities demanded were also rising, depicting an abnormal situation in the trade. Hence the observation that in herd instinct period, traders will demand more during period of increased prices because they are driven by emotions and peer pressure from others, common in mob justice behaviour.

#### 4.3 TO SHOW THE DEGREE OF ASSOCIATION USING CORRELATION MODEL

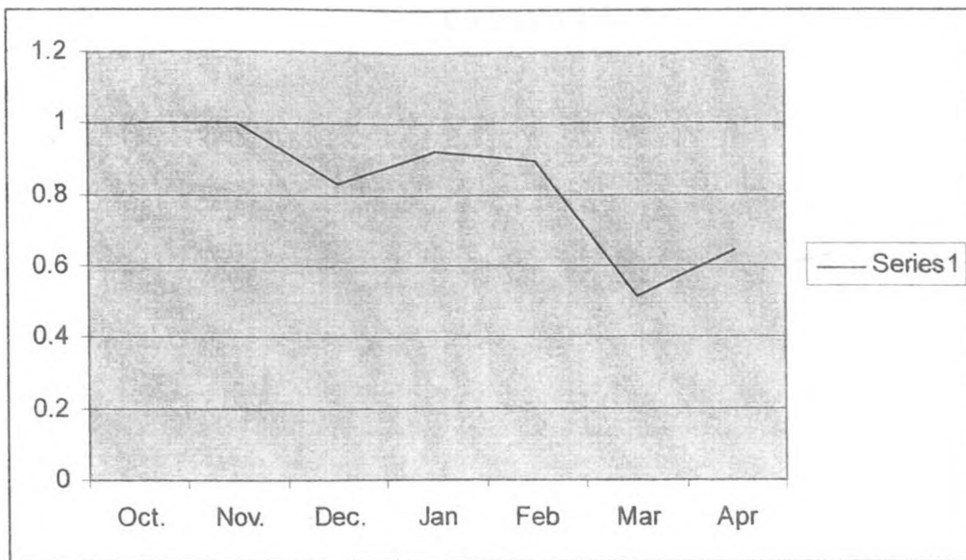
The data in appendix (viii) was correlated using the model below

$$\text{Thus } r = \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum X^2 - (\sum x)^2} \times \sqrt{n \sum y^2 - (\sum y)^2}}$$

Where  $n$  = the number of samples

$x$  = price of securities

$y$  = volume of shares traded



### Findings on correlation values

On application of correlation model, the highest results were observed between Jan-Feb of 0.9 and February- March of 0.89 which indicated a strong association between dependent and independent variables. During the herd behaviour period the correlation ranged between positive one (+1) to positive 0.6 as shown by the co-efficient of correlation graph above. Since correlation ( $r$ ) ranges from +1 where variables have perfect positive correlation and -1 where variables have perfect negative correlation, it shows that during herd instinct behaviour period, prices and volume had a strong positive correlation as opposed to EMH where prices and volume have negative correlation. Since herd behaviour last for a cycle of short periods, it holds true that correlation shifts toward zero and negative eventually, when the EMH factors will have corrected the market in the long run.

## CHAPTER 5

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 INTRODUCTION

The purpose of the research was to establish if herd behaviour has any effect on trade volume and prices for securities quoted at Nairobi Stock Exchange.

The study provided evidence that herd behaviour does exist and that there is a positive correlation between prices and volume traded during the herd behaviour period.

Thus, if there is a positive correlation, it means that, as prices increase of securities being demanded, the volumes continue increasing because the investors are driven by emotion and the influence of others instead of rational thinking depicted by Efficient Market Hypothesis (EMH). However, the correlation was able to show that market eventually corrects the emotional investors by stabilizing the prices when the noisy traders exit the market.

#### 5.2 SUMMARY OF FINDINGS AND DISCUSSIONS

The study was able to establish that herd instinct exists through the use of chi-square ( $\chi^2$ ) test. The samples drawn from the population were stratified into strata's of men, women and youth. The raw data collected by the researcher and the research assistants from the investors, indicated that some investors were influenced by others (herd behaviour) while others relied on technical analysis made by financial experts. The researcher was able to analyze the data which indicated strong influence of other people (herd behaviour) when investors are making decisions. The study was able to show that herd behaviour indeed

exists and tested the data at 5% level of significance using (2) two degrees of freedom. The findings clearly showed that men were the majority of investors and thus became more susceptible to influence from the peer pressure. The category of youth was the lowest and had the smallest absolute values influence from fellow youthful population.

The data also showed that the volume of shares traded increased during the herd instinct period. The increase can be attributed to irrational thinking when a person is in presence of others who are either urging him/her to invest like them directly or making actions to induce him or her to do likewise. The habit of influence was clearly demonstrated by the group investors who indicated that the decision to invest relied on whims and beliefs of group leaders (mainly the treasurers or chairmen of the group).

According to the data, especially October and November 2003, the quantity demanded increased while the prices also increased. This is contrary to the law of demand in the stock market as depicted by efficient market hypothesis in the strong form efficiency. To establish the relationship during the herd instinct period of October 2003 to March 2004, the correlation model was used.

The correlation model showed a positive co-efficient of correlation implying a positive degree of association. The correlation ranged between positive 1 and positive 0.6. According to the co-efficient of correlation parameters, positive 1 means high degree of association or perfectly correlated items while negative (-1) would show negatively correlated items. Therefore, the correlation of positive 0.6 to positive 1 showed a strong

correlation between variables. Generally, it implies that herd instinct behaviour strengthens the investors urge to make investment irrespective of the prices involved, a common behaviour in herding activities.

### **5.3 CONCLUSIONS AND RECOMMENDATIONS**

The results in the study have shown that herd behaviour has a positive correlation with trade volume and prices of securities quoted at the stock exchange. Thus, if certain public mood (whether induced or otherwise) makes people trade in financial assets (stocks) without rationality, the government should be able to intervene to protect unsuspecting investors from being exploited by the smart people in the market.

Since co-efficient correlation was able to show strong sense of association between herd instinct and the stocks traded, the fund managers and financial analysts should be able to gauge the public mood and advise their clients accordingly. For the fund manager, the task is to gain as much as possible while protecting funds for which fund was established.

The presence of herd instinct would make scholars research more on the concept to add literature on behavioral finance and possibly benefit readers and scholars from making irrational purchase or sale of assets.



#### 5.4 LIMITATIONS OF THE STUDY

The items discussed as limitations hindered the scope of the study in one way or another.

The first limitation was time frame for the research. The respondents of the study were scientifically picked from the registers and it was assumed that they would provide information as required. However, some respondents picked from the group registers were not in Nairobi necessitating a repeat and thus affecting consistency. The time frame would not let the researcher wait for the targeted respondents to come back from their employers' assignments.

The second limitation was on the data used. The data was mainly drawn from the stock exchange and capital markets authority and hence limited to the companies quoted at Nairobi Stock Exchange. It is not clear if all securities were used, if the same conclusions would have been drawn.

The third limitation is restricting the study to securities offered by companies. The scope should have been increased to include other assets like non current assets e.g. land. Probably the results would have been different if other assets were used.

The fourth limitation was the use of survey research design to draw conclusions using scientific tools. Majority of respondents remained with the questionnaire for a period of two to fourteen days. There is a possibility that some filled in groups and hence influence on results. For instance, they might have copied answers from one another.

Probably the observation method would produce different results.

The fifth limitation was the choice of few selected scientific tools for analysis. The coefficient correlation tools are showing one variable as the only one affecting the dependent variable while others may have been present. Thus, the need to use other statistical models like linear regression, multivariate functions among others to check whether the same conclusions would be made.

## **5.5 SUGGESTIONS FOR FURTHER RESEARCH**

The suggested topics or areas for further research indicate research gaps not properly answered by this research study or issues triggered by this research and require more data for analysis and conclusion. The first area to be researched would be the application of herd instinct concept on other assets other than stocks quoted at the stock exchange.

The second area recommended for further research relates to time frame. The researcher would be interested in answering how long the herd behaviour period lasts. It would measure how the herd behaviour contributes to the market bubble and show the period it would last for governments to be called upon to intervene.

The other possibility for further research would be the determination of value of herd behaviour on prices. Welch 2004 had stated that the value of the assets is equivalent to the net present value of future cash flows and a model was developed. The future research would use the multivariate approach to compute price premium contributed by

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herd instinct approach. Probably even determine the model for calculating herd behaviour aspect.

The other possible area for research is the contribution made by the other behavioral concept aspects in influencing securities trade. Items like the “shadow of the past” and others have a bearing on risks that investors would want to take.

Finally, future research can be conducted on the same project but using different analytical tools and different methodology of data collection. The replication of research would determine if the same conclusions can be reached.

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## Appendix I: Letter of Introduction

Ministry of Co-operative & Marketing  
Provincial Co-operative Office  
P.O Box 30202 – 00100  
Nairobi

6<sup>th</sup> July, 2011

Chairman  
P.O Box  
Nairobi

### **Ref: Assistance to UON MBA Student**

The Bearer of this letter is employed by the above mentioned Ministry and is currently pursuing MBA at the University of Nairobi.

To complete the course, the students are expected to carry out research study to enable them acquire explorative skills.

Please assist the concerned student to enrich the co-operative sector with the desired skills.

Yours Faithfully,

David Kahuthu

## **Appendix II**

### **List of 10 Investment co-operative**

#### **In Nairobi Province**

MSL Sacco

Stimela Sacco

Thigiriri investment co-operative

Odote investment Group

Delavue investment co-operative

Shinka Sacco society

Stima Sacco

Kimisifu investment

Wanjohi Group investment co-operative

Kenchic investment/Housing co-operative (Alternative sought)

## Appendix III

### Program for visiting Brokerage firms

Date	Time	Brokerage firm	
2/9/2010	11.00-1200 2.00-4.00	Africa Development Bank	Faida securities
5/9/2010	10.00-12.00 2.00-4.00	Dyer & Bryer	Standard investment Bank
6/9/2010	10.00-1200 2.00-4.00	Discounts	Solid Investments
7/9/2010	10.00-12.00 2.00-4.00	Suntra Investment Bank	Reliable securities
8/9/2010	10.00-12.00 2.00-4.00	CFC-Stanbic	Discount securities
9/9/2010	10.00-12.00 2.00-4.00	Francis Drummand	Renaissance capital
10/9/2010	10.00-12.00 2.00-4.00	Kesteral capital	Francis Thuo
13/9/2010	10.00-12.00 2.00-400	Ngenye kariuki & Ass	BOB MATHEWS
14/9/2010	10.00-12.00 2.00-4.00	Sterling securities	Faida securities
15/9/2010	10.00-12.00	Apex African Investment Bank	

# Appendix IV

## MBA RESEARCH PROJECT

### Interview Guide

#### Details of the respondents

1. Name
2. Postal Address
3. Physical Address
4. Age
5. Sex

#### Name of the Brokerage Firm

1. Have you invested in assets?

Yes  No  Not sure

2. If the answer yes, which ones?

(A) Shares only      (B) Shares and bonds      (C) Shares, Bonds, units trusts  
(D) All types of assets.

3. For how long have you been investing in stock exchange?

(A) Less than 2 yrs      (B) Less than 4 yrs      (C) Less than 6 yrs      (D) Less than 8 yrs

4. Are you investing in a group i.e. clubs or individual decisions?

(A) Individual decisions      (B) In a group      (C) Both  
(D) None of the options

5. If alone, who informed you about shares?

6. If alone, how did you obtain information about shares?

(A) My financial advisor



(B) My close friends and workmates

(C) Personal technical analysis

(D) None of the above

7. How often do you sell your stock?

(A) Every month (B) Any time shares are appreciating

(C) Any time share prices are reducing (D) None of the options

8. After disposal do you purchase the same stock or a different one?

(A) Yes (B) No (C) Never participates in the stock again

(D) None of the options

9. Who determines the subsequent purchase?

(A) Earlier experience (B) financial advisor

(C) Media, close friends and workmates (D) none of the options

10. If in a group, how are decisions made?

(A) Democratically (B) Arbitrary (C) By the chairman alone

(D) By learned members only

11. If democratically, what parameters are used to influence decision making?

(A) Financial analysis by experts

(B) Narratives of groups which have succeeded

(D) Group financial analyses

(C) None of the options

12. How frequently do you invest?

(A) Regularly every month (B) During IPO's (C) More than 5 yrs

(D) None of the options

13. If during IPO's why IPO's period?

- (A) Persuasion and participation by others    (B) Financial analysis by experts  
(C) Personal financial analysis                (D) None of the options

14. Are IPO's always profitable?

- (A) Yes    (B) No    (C) At times    (D) Don't know

15. If another IPO is issued would you participate?

- (A) Yes    (B) No    (C) It depends    (D) None of the options

16. Do you have any other comments that you would want to give

## **Appendix V**

### **NSE Stock Index Review**

ICDC Investment Company.

Kenya Electricity Generating Company.

Mumias Sugar Company.

Rea Vipingo Plantations Ltd

CMC Holdings.

Express Ltd.

Nation Media Group.

Sasini Ltd.

Kenya Airways.

TPS Eastern Africa.

Barclays Bank (K) Ltd.

Diamond Trust Bank (K) Ltd.

Kenya Commercial Bank.

Standard Chartered Bank (K).

Bamburi Cement Ltd.

British American Tobacco Ltd

East Africa Breweries Ltd.

Sameer Africa.

Kenya Power & Lighting Company

Total (K).

## Appendix V

### NSE Stock Index Review

ICDC Investment Company.

Kenya Electricity Generating Company.

Mumias Sugar Company.

Rea Vipingo Plantations Ltd

CMC Holdings.

Express Ltd.

Nation Media Group.

Sasini Ltd.

Kenya Airways.

TPS Eastern Africa.

Barclays Bank (K) Ltd

Diamond Trust Bank (K) Ltd.

Kenya Commercial Bank.

Standard Chartered Bank (K).

Bamburi Cement Ltd.

British American Tobacco Ltd

East Africa Breweries Ltd.

Sameer Africa.

Kenya Power & Lighting Company

Total (K).

## Appendix VI

### GRAPH SHOWING THE VOLUME TRADED AND THE EQUITY TURNOVER FOR THE PERIOD OCT 2003 –DEC 2004

Time in

years	Time in months	Volume of shares traded	Equity Turnover
2003	Oct.	22,280,000	1,158,337,275
	Nov.	28,240,000	1,470,000,000
	Dec.	32,150,000	1,450,000,000
2004	Jan	56,835,723	2,835,348,567
	Feb	77,250,000	3,400,698,717
	Mar	56,660,000	2,340,154,694
	Apr	49,400,000	1,479,583,000
	May	28,240,000	1,158,337,275
	Jun	50,980,000	1,290,000,000
	Jul	89,850,000	1,900,000,000
	Aug	38,030,000	1,570,000,000
	Sep	37,560,000	1,660,000,000
	Oct	22,280,000	1,470,000,000
	Nov	61,500,000	1,690,000,000
	Dec	32,150,000	1,450,000,000
	Total	600,735,723	2,224,420,000

## Appendix VII

Time in years	Time in months	Volume of shares traded	Equity Turnover	Average Price
2003	Oct.	22,280,000	1,158,337,275	51.99000337
	Nov.	28,240,000	1,470,000,000	52.05382436
	Dec.	32,150,000	1,450,000,000	45.10108865
2004	Jan	56,835,723	2,835,348,567	49.88673351
	Feb	77,250,000	3,400,698,717	44.02198986
	Mar	56,660,000	2,340,154,694	41.30170657
	Apr	49,400,000	1,479,583,000	29.95107287
	May	28,240,000	1,158,337,275	41.01760889
	Jun	50,980,000	1,290,000,000	25.3040408
	Jul	89,850,000	1,900,000,000	21.14635504
	Aug	38,030,000	1,570,000,000	41.28319748
	Sep	37,560,000	1,660,000,000	44.19595314
	Oct	22,280,000	1,470,000,000	65.97845601
	Nov	61,500,000	1,690,000,000	27.4796748
	Dec	32,150,000	1,450,000,000	45.10108865
	Total	600,735,723	2,224,420,000	3.702826243

## Appendix VIII

Graph show the degree of association we manipulate the data using correlation model

Time in years	Time in months	Volume of shares traded	Average Price	correlation
2003	Oct.	22280000	51.99000337	
	Nov.	28240000	52.05382436	1
	Dec.	32150000	53.10108865	0.829952556
2004	Jan	56835723	53.88673351	0.922306224
	Feb	77250000	53.92198986	0.891888779
	Mar	56660000	50.30170657	0.513703826
	Apr	49400000	29.95107287	0.646212201
	May	28240000	41.01760889	0.577929809
	Jun	50980000	25.3040408	-0.973732819
	Jul	89850000	21.14635504	-0.886908862
	Aug	38030000	41.28319748	-0.867829001
	Sep	37560000	44.19595314	-0.994122483
	Oct	22280000	65.97845601	-0.922918268
	Nov	61500000	27.4796748	-0.917916909
	Dec	32150000	45.10108865	-0.946670192
	Total	600735723	3.702826243	-0.835468426

YR2004																				
DATE	TOTAL SHARES																			
	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTI	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIK	ATHI	KPLC	TOTAL
SEPT																				
1st	3380	9000	988424	13637	14220			7440	172893	3629	2772	6562	16757	209297	4272	11410	5624	30272	742	150033
2nd	1002	4600	582185	32311	11500		967		97710	14285	18999	250	11647	8274	1415	2633	1796	18000	42520	85009
3rd	1307	7830	4209906	43587	2820			380	192969	1285	18887	5542	142109	3245	600	500	7889	13420	500100	515237
4th																				
5th																				
6th	200	3665	800243	10988	4000	1000	98550		592597	2114	431613		68897	2337			32494	7736	18735	207516
7th	5346	3862	215334	11084	616		6062	12580	431961	1000	9369	3702	2169	23921	2257	332	53602	8200	5764	79716
8th	151	15664	368300	2607	8860	5500	4727	14300	492871	2143	11630	1062	62672	136934	4243	934	122848	4300	212667	147241
9th	1833	40808	384254	15158	4247	600		2806	203545	2924	38008	3575	9983	109444	2967	266	36188	10218	8203	875027
10th	379	2049	466469	16271			2387	6000	118418	2348	32791	5089	2240	11037	2324	3235	10068	19788	36532	737425
11th																				0
12th																				0
13th	30303	8755	298710	7164	7500	3000	659	1000	53045		2639	1875	3973	218837	500	200	13099		1363	652622
14th	78762	29890	942428		1850		6224	10700	207037	500	25848		6163	7896	15816	3000	7276	71400	2216	1417006
15th	9731	2400	373614	26071	1250		201674	600	504772		447443		6602	50555	25769		2449	7934	24406	1685270
16th	3264	126054	992487	12200	6267		8124	1300	335140	2278	52733		7142	5155	18804	57140	3233	122148	101967	1855436
17th	809	125	696955	2071	3912	3200		1865	168682	350	73999	6749	15992	117140	98832	50000	10438	3100	8468	1262687
18th																				0
19th																				0
20th	997	13132	321221	1992	253	7100	14117	45000	79924	500	26963	500	14243	5365	22434	9119	79727	14296	10000	666883
21st	3342	18818	474068	5857	2187		100	4420	45605	6286	5146	21988	28311	1720	65251	270	36023	3200	14573	737165
22nd	391	14565	234306	7897	10057		601	61860	211411	5100	12330	200	47495	8839	82734	2899	59196		30500	790381
23rd	1078		364565		10056	5000	2711	360	67478	5172	8396	2346	5255	28087	99071	133	9030	8093	2461	619292
24th	1624	1385	742785	4600	1100		996	3000	159364	1737	9825	635	67208	5096	22518	7616	29675	4373	52291	1115828
25th																				0
26th																				0
27th	3409	21340	256030	1607	2000		347674	820	180669	22916	6487		51463	5957		200	47203	201	543711	1491687
28th	1491	18192	117244	1200	23014	700	5140		47857	1127	11832	2500	23256	40533		10700	13170	1700	586098	905754
29th	1302	5450	517531	1284	592		610	16000	1801210	643	5914	10637	31376	14881	1682	16050	1331	17877	203800	2648170
30th			1399306	1281	9025		4645	2000	32971	2048	4271		110955	16934	952	4942	7290	3000	204570	1804190
TOTAL	150101	347584	15746365	218867	125326	26100	705968	192431	6198129	78385	1257895	73212	735908	1031484	472441	181579	589649	369256	2611687	3112367



YR2004																				
DATE	TOTAL SHARES																			
	ICDC	HFC	MUMIAS S	REA VIPING	CMC HOLO	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI RIVER	KPLC	TOTAL
august																				
1st																				
2nd	6771	20166	261630		7834		1365		74094	13886	32895	86000	12793	10035	12300	7990	2023	19085	11691	580558
3rd		14309	135609	18886	4480	1760	3544	1000	746741	1000	5920	43016	112505	3960	716	246	66656	24900	14016	1199264
4th	4138	73316	2582378	1607	8500	158254	5444	4000	607576	21357	15870	4100	33396	4939	20340	3366	711	46893	176976	3773161
5th	8147	11685	536734	5943	12924		1286		34467	4228	8373	11000	28438	1787	6625	3233	16096	24011	414732	1129709
6th		32700	628646	10142	41816			3820	73949	7926	14422			18257	12685	7695	7338	638	9300	877431
7th																				
8th																				
9th	7303	11057	394635	1071	20359	2000			456784	5142	898	133232	11555	341266	313550	6788	39249	10960	3839	175968
10th	2645	4250	5228290	10856	37500		200	3000	130003	2553	13706	4938	14190	143184	6080	2846	10005	4500	3753	562249
11th	1009	1223	1092688	15171	61538	3500	302	5250	24806		56538	17000	19181	4601	46600		25556	10430	5726	139119
12th	1474	11366	176637	14763	46528	5000	475	11179	67532	7113	400611	20628	16848	6972	12594	2548	4158	35800	53763	89598
13th	11179	4979	1384178	1071	5562				42160	643	88662	30920	24471	304	3694	2100	53148	13840	21730	1688641
14th																				
15th																				
16th	113	5750	153407	4471	585		187	24655	73583	2143	6242		8389	17532	2668	1440	137811	10861	220	450057
17th	300	26832	616750	8099	14100		150	21500	32771	3392	10516	1000	63420	7985	300		158777	9148	12299	98733
18th	2300	22353	806350	11460	2585		5200	2000	213200	2286	14478	4580	11621	9059	3540		34490	5700	54877	120607
19th	711	1027	305178	13106	19965	2000			156291	16782	6547		14509	105304	117631	266	97167	9744	4930	87115
20th	4700	7088	332139	159970	14621	7500	1328	3000	36458	1143	144621	12113	7576	3162	2997	2700	25240	14550		78090
21st																				
22nd																				
23rd	558	5414	495578	61898	17142		200	1000	94339	3743	3118	6240	37918	3487	448	1984	28013	30654	1593	793327
24th	16075	28935	805485	12090	500		5625		499359	1000	16034	9996	53454	7685	5198	42439	6471	30428	12294	155306
25th	2951	4933	821161	11712	342		283653	450	152620	13671	68074	1924	26216	15777	4292	50649	41642	28147	9326	153754
26th	3776		437629	30874	24145	28000	276125	28550	181142	5286	82404	2000	46002	17971	5000	877	34800	52000	7200	1263781
27th	100	20363	903524	43605	1359		2000		228224		3649		53309	4545	8378	2527	20486		155200	144726
28th																				
29th																				
30th	589	167590	831162	188185	15689		1461	880	34466	1443	13454	2500	61602	12505	200	410	116773	10477		145938
31st	62794	75240	2185489	116125	15601	5918	1625	17080	470987	1143	15486	3451	29883	4140	580	6567	28827	9350	15891	3066177
<b>TOTAL</b>	<b>137633</b>	<b>550576</b>	<b>21115277</b>	<b>741105</b>	<b>373675</b>	<b>213932</b>	<b>590170</b>	<b>127364</b>	<b>4431552</b>	<b>115880</b>	<b>1022518</b>	<b>394638</b>	<b>705533</b>	<b>738885</b>	<b>581426</b>	<b>146314</b>	<b>948737</b>	<b>410778</b>	<b>988153</b>	<b>3433414</b>

YR2004																				
DATE	TOTAL SHARES																			TOTAL
	ICDC	HFC	MUMIAS S	REA VIPING	CMC HOLD	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTER	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI	KPLC	TOTAL
JULY																				
1ST	900	30944	369419	24443	34767			5800	115418	3227	1776	13500	7568	35965	58550	4135	15205	950	10700	733267
2nd	124100		15279167	9000	5000		497		97957	1649	1249	6000	68472	10575	16725	1266	1561		1100	15624318
3rd																				0
4th																				0
5th	513	22127	15959399	28000	1401				13650	2679	8747	17115	99456	8223	2200	100	10820			16174430
6th		23400	2308717	17341					68352	2443	13644	76455	59551	8439	70600		11579	8400	25500	2694421
7th	135	350	1789879	1000	1000		600		55368	12150	24615	350	1266				4407	6328	17193	1914641
8th		16214	1467289	104653		10000	32806	1000	61471	7854	29480	13266	9421	10120		1269	188211	41876	6691	2001621
9th	45867	4083	449413	20737	2160		9013	7000	246386	6363	27680	72750	37815	4282	5562	1126	216223	8760	3655	1168875
10th																				0
11th																				0
12th	771	6650	364848	55810	600			5000	46445	500	197867	26039	6598	8610	2000	392	124040	14500	8996	869666
13th		18232	304066	149417	8573	5000	105	12430	954455	10071	7260	71793	14512	15410	20850	780	16772	2085	4000	1615811
14th	5846	11160	222244	33387	14332	1968	2633	7720	218590	5015	30019	26000	23582	3235	15185		1521	93460	1000	716897
15th	3093	19972	440292	11100	23167	8330	5573	5750	179261	4052	126951	2900	44288	4693	15449	2600	45228	29820	1700	974219
16th		62137	873144	92280	6774	11000	428	5000	293792	3243	29054	21784	26595	14719	55090	2893	250951	52200	21781	1822865
17th																				0
18th																				0
19th		153450	507475			1700	6550	1500	8784	1143	30168		22562	33702	74210		15626	6200	2200	865270
20th		11025	481647	27834		3000	13210	23000	69342	14998	47086	8052	33225	19004	6000	6442	11511	6500	14830	796706
21st	52200	52200	2152392	1706	25726	1283608	9386		1712884	60110	53158	2137	107067	5342	10420		53823	22390	20755	5625304
22nd		60625	277460	18324	3800	234092	598	2500	1025347	7093	136089	1284	39288	18324	6000	373	107301	42150	7146	1987794
23rd	626	16052	783638	4610	8990		1305	300	36512	2785	7864	8944	22424	6524	5065		81425	29550	17652	1034266
24th																				0
25th																				0
26th	351	14069	3606145	2213	2800	14700	1917	18200	42517	2849	31436	1500	17169	1715	5900	2000	72284	16399	16292	3870456
27th	1432	1343	12895673	14512	3093	1000		16021	34104	643	90827	13528	34623	8207	20500	1216	1326	2200	15421	13155669
28th	5077	12591	532480	2143	29438		150	150	130818	4337	10582	200	51065	14605	925	500	47303	2000	7300	851664
29th	9249	5383	413647	1120	901	1700	131142	6000	143120	11418	17516	8190	42466	48479	4250		3402	1105	125765	974853
30th	1401	6282	1473900	7149		4960	561		526493	18743	10375	5000	30362	1437	2700	460	1926	35886	9000	2136635
31st																				0
TOTAL	251561	548289	62952334	626779	172522	1581058	216474	117371	6081066	183365	933443	396787	799375	281610	398181	25552	1282445	422759	338677	77609648

YR2004	TOTAL SHARES																			TOTAL	
DATE	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTI	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI RIVER	KPLC	TOTAL	
JAN																					
1st																					0
2nd	1744	15791	31089		2046		823	750	26390		18023	140	13762	7725	3257	605	3084	47100	86038	258367	
3rd																					0
4th																					0
5th	9262	158250	37994	3837	340	2800	2765	100	111862		43543		20149	58225	13467	1466	177737	69660	10143	721600	
6th	4765		161207	3500		600	1580		557111	4129	10858	1199	66108	8897	10479	5660	2132	57269	39693	935187	
7th	14594	11050	529519	1000	8752		8298		19398	6930	19061	7997	241845	24000	1888	4709	582	54720	32099	986442	
8th	9622	10591	82408	3907	14820		12247	500	72893	3421	25218	10000	28924	45391	6244	5992	10401	56530	227113	626222	
9th	21001	9275	356741		3294		11948	500	114847	2079	58912	16017	17075	39994	2145	9828	1517	179158	184328	1028659	
10th																					0
11th																					0
12th	5486	22322	520621	1500	100		7256		17904		54754	10558	140466	55814	26525	20629	3246	74400	48454	1010035	
13th	3300	3075	467415	3000	29016		18269	300	176600	900	7006	63744	402615	16921	14028	12760	13082	49260	63823	1345114	
14th	11544	13500	722303	3700	19786		6065	1100	67003	3892	49827	10312	721467	89554	107	8300	39521	45958	13550	1827489	
15th	2492	13325	392695	4071	6664		3660		172391	3352	26384	22718	53444	4951	13056	5183	11376	12972	29859	778593	
16th	9414	13500	456840	63143	43553		8778	1293	79293	642	93433	33638	42011	8316	3257	482	26989	82695	104449	1071726	
17th																					0
18th																					0
19th	5937	36563	143974	68398	27070		1004	300	74642	3853	12648	37406	387534	62409	27751	232	3300	28935	33844	955800	
20th	12043	3500	681619	254373	11350		2581	20200	92724	3272	18249	18359	406257	17230	8591	35941	61811	72180	906489	2626769	
21st	28127	35539	612966	10833	62718		14104	10000	3838666	1543	37029	687	63712	52250	18160	15687	103063	14070	304949	5224103	
22nd	6653	156867	225013	75596	16662		16423		17368	3486	29818	24071	59323	46339	2449	23602	38334	214182	71772	1027958	
23rd	29851	146378	469994	21284	31289		60686	15000	260099	3785	19787	65300	169843	10831	906425	14723	121947	80926	159993	2588141	
24th																					0
25th																					0
26th	1000	117006	191591		138906	1500	2454		280756	2928	39569	53972	317694	35660	397699	5495	138069	173605	78730	1976634	
27th	1761	41807	598437	5071	29113		5275	12940	342580	19611	76330	16485	60071	56034	308210	37072	233913	961444	61341	2867495	
28th	10151	55375	241205	10286	42242		2612	3500	291554	8214	158378	481516	93091	24380	8000	42883	8718	1666050	469490	3617645	
29th		251945	352496	15107	21539		8523	8341	389576	6443	41789	52500	611462	54160	2126	31501	15073	51300	396057	2309938	
30th	9170	89925	232785	30271	81203		1796	7000	561339	643	37363	3025	59312	13555	15200	34870		109346	105193	1391996	
31st																					0
TOTAL	197917	1205584	7508912	578877	590463	4900	197147	81824	7564996	79123	877979	929644	3976165	732636	1789064	317620	1013895	4101760	3427407	35175913	

YR2004																					
DATE	TOTAL SHARES																				
	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI	KPLC	TOTAL	
FEB																					
1st																					0
2nd	4340	35190	2104359	10000		4000	1299	7850	447787	4596	14084	1200	35909	12268	30218		17724	453029	88842	3272695	
3rd	4236	24015	855584	13284		300	38691		134909		67938	18123	346061	97999	82983	14723	84898	184423	286209	2254376	
4th	14721	92700	3593602	4482	31654		10869	400	135264	1785	20439	10400	294076	41222		15000	12692	105504	797902	5182712	
5th	25440	19110	502044	2934	3318		5959	51050	25251	842	23678	167371	148957	40290	479	2677		310848	18703	1348951	
6th	4458		2433815	117696	33907		11781	34500	1022288	1643	258698	65255	61028	39677	1450	51512	27717	201085	316427	4682937	
7th																					0
8th																					0
9th	19711	11185	4179543	16472	4300		28420	42450	33177	6354	22476	250	180021	18125	10545	1248	8693	55710	64035	4702715	
10th	3571	16664	2999920	41799	11404		2205	31730	381478	10125	59400	54452	713129	27789	139400	1500	4272	42441	88938	4630217	
11th	53609	22805	586173	14961	20500		1623	17910	463261	22083	25511	380500	1071011	15964	12350	6043	76261	74272	54690	2919527	
12th	61739	38255	770874	66960	55235		6384	23000	137958	11293	43519	1140675	190518	76826	52144	24099	17875	30078	142744	2890176	
13th	5801	66891	573714	24213	62017		6289	68400	239441		24744	1030550	210176	21516	20582	4100	107538	125585	63233	2654790	
14th																					0
15th																					0
16th	21806	17557	1462728	15600			15670	2000	272891	5072	7068	3000	762451	42463	13520	9660	21573	56440	545912	3275411	
17th	20814	759653	418829	24071	17945		39343		324719	2342	51538	203358	208352	50488	16800	11416	91880	11265	171349	2424162	
18th	3630	142637	1291861	205246	17313		8778		16800	3256	51120	55086	140862	39458	801	11391	43428	162459	90117	2284243	
19th		197446																111180		308626	
20th	20769	230775	805496	10842	20327		6650	32200	607840	3643	94697	27634	48907	14610	91159	160	23202	28040	36213	2103164	
21st																					0
22nd																					0
23rd	6112	45225	529876	3800	25636		5205	17400	267158	2328	53347	1500	73324	7192	7494	5000	52698	579595	405985	2088875	
24th	536	25486	403546	237107	11679		32958	17378	99880	19100	130293	37916	53032	5965	1300	2963		110720	945557	2135416	
25th	8577	48616	995613	10500	24521		37098	29200	355016	8167	150543	6310	197160	52145	147877	22038	114538	112600	697217	3017736	
26th	11371	26350	1499176	124836	55483		9909	6950	48959	8115	71434	13600	24630	20691	85627	5728	56205	336060	27403	2432527	
27th	10087	177880	856350	34461	14368		10102		722027		107961		172057	15400		6827	44045	14846	62792	2249203	
28th																					0
total	301328	1998440	26863103	979264	409607		4300	279233	382418	5736104	110744	1278488	3217180	4931661	640088	714729	196085	805239	3106180	4904268	56858459

YR2004																				
DATE	TOTAL SHARES																			
	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTI	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI	KPLC	TOTAL
MARCH																				
1ST		51945	646362	11669	15128		4816	27000	529259		35239	9068	37924	60862		19114	36995	54463	34554	1574398
2nd	784	63984	169589	8000	1944	15750	19510		461737		6183	5550	86103	650	200	12001	6362	74575	98448	1031370
3rd		35091	627866	147107	11609		5225		295265		26435	4550	297994	42556	19300	20000	16123	44560	131126	1724807
4th	300	71065	4223961	174607	13140	6400	137895		324332	6229	80978	2365	93545	34550		4500	38694	49675	27544	5289780
5th	33066	12162	2134861	135962	13000	94033	12770	169533	1705922	3786	799	84382	222652	25182	55348	3917	7968	98980	210805	5025128
6th																				0
7th																				0
8th		31728	357805	171262	1056	88967	7766	42200	1776134	942	22655	825	54555	20125	1028		10330	50750	30009	2668137
9th	6600	27720	36819	206548	26116			56690	165300	12656	44024	8529	114875	44439	12377	27923	2034	118070	29097	939817
10th	201	27240	156946	38913	9698	30000	6000	14750	16065	4643	31842	3539	213997	13209	114500	25157	479	53365	26703	787247
11th	21440	29383	115728	74239	5800	45595	9424	51520	26820	16929	45678	73980	81276	10552	2304	55836	26567	53200	22330	768601
12th	210	47690	162565	28076	5600	500	10773	63350	26820	3429	30689	1500	35499	68873		5656	13369	46824	73986	625409
13th																				0
14th																				0
15th	842	17550	162717	52250	15650	143900	8610		791723	1000	24964	1250	38319	34675	1000	500	14303	181002		1490255
16th	59200	1500	1655550	4000	1558	93200	21300	62000	434052	3328	83874	29187	125211	19805	392	1000	5766	177085	10700	2788708
17th	2500	79142	660428	61866	15065	3600	2561	8500	94210	3643	129129	2791	68837	10672	23365	15000	30142	32660	58516	1302627
18th	330	133956	400174	56428	3042	15600	356101	37170	153154	643	301284	44317	29346	19745	800	100	173528	35129	140008	1900855
19th	75987	35248	761184	12639	22200	4505	27845	6650	925767	1586	20104	111023	25331	6595	1190	462	503	62150	20240	2121209
20th																				0
21st																				0
22nd	250	9039	1956054	37449	9177	120440		26680	148512	5623	40088	98713	15388	6575			30454	38050	47050	2589542
23rd	8766	29087	670508	21544	995	12700	27486	2300	88868		107949	20580	70447	160192	87000		13617	231111	10847	1563997
24th	12446	110831	269610	16977	2000	65000	36237	43450	152251		12757	87614	51121	160522		5000	87218	177084	54291	1344409
25th	13543	41160	1333744	20515	5851	2000	40344		108081	14877	13767		19560	19220			53483	14300	17292	1717737
26th	3416	9363	1462410		4150	5300	8349		177093		36280	1750	17748	600	250		26300	36870	104080	1893959
27th																				0
28th																				0
29th	4045	4700	542263	19313	4000	14000	38000		1042060		18781	17152	80243	100	41172	48000	1695	13400	14547	1903471
30th	1061	11616	4121610	57000	500		108		158607	4000	4207	21052	26091	93694	2997	2936	580	43740	8182	4557981
31st	9093	11589	224725	1506			13772	28510	37717	3286	45820	94384	60726	4125	222074	20733	45182		8173	831415
TOTAL	254080	892789	22853479	1357870	187279	761490	794892	640303	9639749	86600	1163526	724101	1866788	857518	585297	267835	641692	1687043	1178528	46440859

YR2004																					
DATE	TOTAL SHARES																				
	ICDC	HFC	MUMIAS S	REA VIPIN	CMC HOLD	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI	KPLC	TOTAL	
APRIL																					
1st	341	8750	666139	1577				2000	30354		25992	5118	7265	105	30453	4000	2111	94700	34911	91381	
2nd		79126	342694	6301		2640			275649	8272	62070	18544	28630	1900	20643	1214	5152	2495	11118	86644	
3rd																					
4th																					
5th	303	1500	5625273	200	4064		291		100760	2429	28766	6860	5147	68280	1496	5323	308783	247779	306252	671350	
6th		6780	2259793	47514	3000	8560	3200	1000	198314	500	97027	1000	8413	54201			7049	299687	7650	300368	
7th	1707	9150	192544	222233	2990		15293	13600	21822	1500	9260	1000	16059	33943	6082	9844	20357	16320	7870	60157	
8th	1563	6800	171103	6231	30679	260	3488		68082		112864	5000	19339	5820	36107	95771	5393	67760	19920	65618	
9th																					
10th																					
11th																					
12th																					
13th	6566	3120	847787	6670	2860	5640	2162	100	199561		81604	3000	7934	17212		16931	23030	11950	33600	126972	
14th	659	6062	295040	9594	78408		989	463	109343		101582	22703	39566	334631	1000	3877	24742	15890	82020	112656	
15th	771	43417	6064890	18570	10464		593		475523	2786	116581	6665	22642	15065	33000	1100	32976	53350	14041	691243	
16th	1174	3000	8056244	42890	4101	7000	292	12720	525949	1000	47512	7903	33010	87543	100000	1100	2450	53360	54306	904155	
17th																					
18th																					
19th	6679	7925	2800714	9386	44035	14000	2842	10000	36298	500	16109	11639	25862	47002	102000	5433	3406	157005	18510	331934	
20th	995040	23343	751652	2142	31738		1666	96700	168790	643	2962	116320	83308	5428	38574	260	75780	2640	32696	2429682	
21st	20326	7704	1075244	15678	7000		39537	3200	476005	21030	23756	14373	38530	16918	400		18371	5420	13745	179723	
22nd		13523	664422	14790	30131		9685	200	139128		10792	19023	51452	92598	12860	7515	14223	3400	1473	1085215	
23rd	4968	1544	46741	12876	23518		5859	14850	158385	3856	7274	1000	46877	40924	6644	200	1224	25600	11509	413849	
24th																					0
25th																					0
26th		2600	238488	1214	19184		3689	156168	265561	2943	7573		7566	16650	6298	5200	2433	2890	2700	741157	
27th	1732	29303	650556	32142	12752		8069	25793	232980	12760	23032	16607	31623	11062	2688		11799		8395	1111293	
28th	1774	625	315044		9163	1000	1545	1000	82405	1643	16130	8500	10350	2780		1248	72351	12400	7255	545213	
29th	105819	2300	277334	36200	1616	8480	26923	53476	154292	2642	14780	31200	54371	2380	1797		18303	9500	5146	806559	
30th	618	4208	168368	10414	11037		103545	10000	121910	143	38967	29520	12641	2355	16800	44474	26844	10175	10323	622342	
TOTAL	1150040	260780	31510070	496622	326740	47580	229668	401270	3841111	62647	844633	325975	550585	856797	416842	203490	676777	1092321	683440	43977388	

YR2004																					
DATE	TOTAL SHARES																				
	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTI	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI	KPLC	TOTAL	
MAY																					
1st																					
2nd																				0	
3rd	1371	26400	384850	11468	24326	2000	107186		544613	1250	13444		12053	250	14265	75020	2519	43500	255457	1519972	
4th	9671	2000	717268	9921	66391			110024	50927	38427	50266	2347	6710	2312	2300	8714		12020	72554	1161852	
5th	201	500	434659	7857	16850			36100	850	114723	405	42454	27953	11809	2838		1001	8425	2760	709385	
6th	100	3800	480893		11000	200	725	28507	235821	500	2974	3111	2002	2300		200	11578	5325	77396	866432	
7th	209	5860	2168448	5414	1029	2660	1479	60000	94985		46416	46595	35152	1850		3800	3345	3880	87791	2568913	
8th																				0	
9th																				0	
10th	1503	3375	354140		38300			16581	10300	34100		29197	1000	20806	108000		20812	634	2200	3112	644060
11th	1062	16326	5561109		200			2083	2400	159604	7741	24586	722	3887	9791	21400	113841	4000	5900	5934652	
12th		5000	1010836	1000				187	11600	36704	2714	18156		6813	67000		1727	200	310380	1472317	
13th	7938	9000	1475630		5159			749		112350	200	8912	1925	42404	2213		50000	36156	1450	3960	1758046
14th	2274	19418	456322	23000	2703			500	158493	85764	642			54395	2440	6333		717	3484	13657	830142
15th																				0	
16th																				0	
17th	6628	832	542538		2250		100	9401	673492		37453	52115	21487	9184	23700		8215	10543	11835	1409673	
18th	3403	18781	204642	45000	2000		250	20903	673492		251757		42720	2034	641920		1856	36520	1296	1946574	
19th		18064	387554		500	1408448	3862	1000	679642		7952	1625	39659	4698	261005		1805	61425	3900	2881139	
20th	11512	14500	293279		4538				300242	2343	7897	3140	28874	8250	8006	24200	4305	42032	24112	777230	
21st	1194	5650	238908	13658			3212		25667	4116	52547	3050	62839	108292		1894	13591	5157	11248	551023	
22nd																				0	
23rd																				0	
24th	695	2000	278236	5358		4240	100		17507	300	2897	19546	36097	213315	175646	4511	13463	45250	5330	824491	
25th	503	9170	340232	9669		800	6325		18910	2412	8631	9424	7654	102800	58947		62822	305	6901	645505	
26th	100	16316	1294181	22849		10000	1500	10000	253454	2429	16949	61430	15973	11575	3481	22795	60360	31200	21800	1856392	
27th	1491	13500	724746	12678	9740	1200	1845	500	255563	6150	16015		31282	54060		7258	3194	14710	5654	1159586	
28th	3519	20125	572885	6292	2564		1624		61907	800	9125		8324	9760	78000	12847	41681	42500	3497	875450	
29th																				0	
30th																				0	
31st	120	17223	243231	2000	12452		2821		77071		53121	8572	22165	1700	53251	16676	46241	7980		564624	
TOTAL	53494	227840	18164587	176164	200002	1429548	187129	423978	4506538	70429	700749	242555	513105	724662	1326854	270127	429051	382106	928540	30957458	

YR2004																					
DATE	TOTAL SHARES																				
	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTI	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI	KPLC	TOTAL	
JUNE																					
1st																					
2nd	24771	16363	167484	23213	10550		1350		819040	1000	12154	2229	8244	7370	8500	5628	31103	11230	11300	116152	
3rd	5257	750	2544854	24577	8800	5000	7675	19500	972590	2843	160437	17329	33481	11580	25350		144537	6115	10126	400080	
4th	1003	10590	1244437	9000	22272	9000		1000	451812		13322	45344	40143	13888	16949	673	69213	15500	555	196470	
5th																					
6th																					
7th	1271	4500	460889	1150	1000	200	17797	12200	220954		2555	6243	21302	13027	2650		10510	17650	1801	79569	
8th	492	51625	429134	18270	14850	6372	7000	14450	329361		18521		148647	35333	30000	2146	29199	8900	15099	115939	
9th	1000	133434	560743	69756	32517		11840	5000	137113		5778		14182	4962	34905	11105	2123	2189	70000	109664	
10th	133200	43629	1046666	56241	5846	12800	7219	192860	37916	110	37708	25037	107830	10039	19400	989	78963	15256	7778	183948	
11th	37361	9854	299282	314357	17400		1499	70000	564389	5753	70553	5000	49571	50030			1387	5000	755	150219	
12th																					
13th																					
14th	271	32750	479906	103622	2737		3411		649678		14655	14853	99515	103622	49229	1000	934	13700		156988	
15th	2176	19935	641610	38171	9380		2485	66420	122157	7598	20954		108398	8800		4505	3280	5390	14400	107565	
16th	4712	24437	176285	4805	1500		686	4000	173142	8561	13767	11487	26505	4000	76600	3471	1725	12160	1850	54969	
17th		10491	74951	123800	16000		360	1000	64684	2200	19864		55131	48486	1260	498	103658	27300	5645	55532	
18th	444	16275	192544	271156	30100		45516	8450	112862	2805	13899		141727	33981	45550	2500	33789	3869	153592	110905	
19th																					
20th																					
21st	9210	39650	245037	58041	8005		300	200	192339	13937	10882	2000	63812	1513	7300	1400	5739	3250	2299	66491	
22nd	3481		199721		16754	8000	5555		162164	1784	5182	20262	1799	6892	54956		230	25350	229551	74168	
23rd	1100	12273	172771	3577	1720		25272	4675	116979	700	19068	7266	4705	8055	700	2946	1535	85750	28058	497150	
24th	731	1350	174047	78065	2598	8350	1383		178849	4143	39933	47570	5709	45693	14464	27032	2664	600	8579	641760	
25th		4300	5630599	50571	3362	7000	562	29580	149502		22278	10200	6542	16162	5695	842	26829	2950	8465	5975439	
26th																					
27th																					
28th		6098	5615111		6257		1100	3000	138748	900	12249	10182	7097	20615	6277	12473	16508	400	2400	5859415	
29th		4875	5631980	54582	5800			2500	212556		52680	6000	10667	18207	185176		13004	13000	1249	6212276	
30th		16730	5648712	10428	1720	1094436	3052	6200	21349	1286	34698	64049	11343	74408	3850	3067	3865	5300	102091	7106584	
31st																					
TOTAL	226480	459909	31636763	1313382	219168	1151158	144062	441035	5828184	53620	601137	295051	966350	536663	588811	80275	580795	280859	675593	46079295	



YR2004																					
DATE	AP																				
SEPT	ICDC	HFC	MUMIAS S	REA VIPIN	CMC HOLD	EXPRES LT	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRI	ATHI RIVE	KPLC	TOTAL	
1st	50	11	11.55	10.5	57.5			20	14.1	37.25	203	29.25	60.5	138	83.5	181	510	16.2	95	1528.3	
2nd	50	10.9	11.5	10.5	58.5		175		14.15	37.5	204	29.25	60	136	85.5	186	510	16.1	93	1687.7	
3rd	50	10.8	11.5	10.5	58			20	14.45	37	204	27.5	61	136	87	190	510	16.05	95	1538.0	
4th																					
5th																					
6th	50.5	10.55	11.45	10.45	57.5	9	179		14.9	37.25	204		61	134			510	15.95	90.5	1396.0	
7th	51	10.35	11.3	10.15	58		177	19.95	15	37	202	26.75	59.5	131	86	190	511	16.05	90	1702.0	
8th	50.5	10	11.3	10.15	57.5	9	176	20.75	15.05	37.5	203	27	59.5	130	87	191	510	16	94.5	1715.7	
9th	50	10	11.25	10	57	8.95		20.75	14.85	37.5	200	27	58	130	86	192	510	16	93	1532.1	
10th	50.5	9.9	11.1	10			178	21	14.5	37.5	200	27	58	130		195	510	16	94	1562.1	
11th																					
12th																					
13th	50	9.9	11	9.75	56	9	175	20.5	14.2		199	26	56.5	130	86	200	509		92.5	1654.3	
14th	50.5	9.6	10.9		56		175	20	14	37	196		57	130	85	195	510	15.9	92	1653.9	
15th	50.5	9.6	10.55	9.55	55		179	20	13.9		199		55.5	130	85.5		510	15.7	91	1434.1	
16th	50	9.5	10.6	9.5	55.5		175	20	13.85	36.25	198		54	130	85	190	509	15	93.5	1654.7	
17th	50.5	9.3	10.6	9.5	55	9		20.25	13.75	36	199	26	53.5	130	85.5	190	510	15	92.5	1515.4	
18th																					
19th																					
20th	50.5	9.05	10.6	9.5	54	8.7	176	21	13.7	35	199	27	50.5	131	85	190	510	15	91	1686.55	
21st	50	9	10.8	9.5	53		176	20.5	15.3	37	200	26.5	51.5	130	85	194	510	15	90	1683.7	
22nd	50.5	9	10.95	9.5	52.5		175	20.5	13.95	37.75	200	26	52.5	131	85	193	510		89.5	1666.65	
23rd	50		10.9		53	8.95	175	19.75	13.95	36.75	200	26	52	131	85	200	510	15	90	1677.3	
24th	50.5	9	11	9.55	51		175	19.8	13.9	36.75	200	26	54.5	131	85	201	510	15	89.5	1688.5	
25th																					
26th																					
27th	50	9	10.95	9.5	52.5		180	19.8	13.95	36	200		54.5	133		200	510	15	84	1578.2	
28th	50.5	9	10.85	9.55	53	8.95	176		13.95	36	200	26	55.5	133		200	510	15	83	1590.3	
29th	51	9	10.85	9.5	53.5		180	20.25	14	36.25	201	25.75	56.5	133	85.5	200	514	14.55	85.5	1700.15	
30th		9.2	10.8	9.5	55		175	20.5	14	36	204		59.5	133	85.5	199	528	14.55	88.5	1642.05	
<b>TOTAL</b>	<b>1057</b>	<b>203.65</b>	<b>242.3</b>	<b>196.65</b>	<b>1159</b>	<b>71.55</b>	<b>3177</b>	<b>385.3</b>	<b>313.4</b>	<b>735.25</b>	<b>4415</b>	<b>429</b>	<b>1241</b>	<b>2901</b>	<b>1538</b>	<b>3877</b>	<b>11241</b>	<b>309.05</b>	<b>1997.5</b>	<b>35489.65</b>	

YR2004	AP																				
DATE	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRI	ATHI RIVER	KPLC	TOTAL	
1st																					0
2nd	49	10.9	11.25		55		185		12.45	36.5	210	30	65	141	79.5	200	466	17.45	91.5	1660.55	
3rd		11	11.1	9	53.5	9	181	17.85	12.5	36.75	213	30	66.5	144	79	200	480	17.05	90	1661.25	
4th	51.5	11.2	10.65	9	53	9	180	18.1	12.5	37	218	30	66	146	79.5	200	480	17	91.5	1719.95	
5th	56	11	11.2	9.05	52		180		12.55	37.5	217	30	66	151	80	200	480	17	91.5	1701.8	
6th		11	11.45	9	52			18.1	12.5	37.75	216		66.5	150	80	200	479	17.35	91	1451.65	
7th																					0
8th																					0
9th	56	11	11.45	9.1	51	9.1			12.5	37	214	30	66	154	80	200	479	17.1	91	1528.25	
10th	54.5	11	11.5	9.1	50.5		185	18	12.65	37.75	214	28.75	64.5	154	79.5	200	476	17	90.5	1714.25	
11th	54.5	11.05	11.5	9.2	50	9.05	190	18.15	12.55		209	28.5	62.5	151	80		483	17.05	90	1487.05	
12th	54	11.1	11.7	9.2	52.5	9	187	18.35	12.65	38.5	207	28.75	64	150	80	198	485	17.1	91	1724.85	
13th	53.5	11.45	11.7	9.45	55.5				12.65	39	206	28	60	148	80	198	490	17.5	90	1510.75	
14th																					0
15th																					0
16th	53.5	11.2	11.75	9.2	54.5		187	18.65	12.7	39	206		58.5	144	80	198	497	17.5	89.5	1688	
17th	53	11.15	11.8	9.05	54		181	18.7	12.75	39	206	28.5	59.5	140	80		495	17.35	89.5	1506.3	
18th	50	11	11.8	9.35	54.5		180	18.95	12.95	39	207	30.5	59.5	140	80		494	16.95	90	1505.5	
19th	50	11	11.65	9.3	54.5	9.25			13	40	207		59	140	80	199	495	16.95	90	1485.65	
20th	50	11.05	11.55	9.95	55	9.25	178	19.75	13	38.5	210	30.25	59.5	139	80	197	494	16.95		1622.75	
21st																					0
22nd																					0
23rd	50	11	11.45	10	55		180	19.75	13.35	37.5	207	29.25	59.5	139	81	190	494	16.95	89.5	1694.25	
24th	50	11	11.5	10	55.5		180		13.8	37.5	208	29	59.5	140	81	182	495	16.5	88.5	1668.8	
25th	50	11	11.7	10	56		180	19.75	13.85	37.75	209	29	59.5	138	81	181	500	16.5	89	1693.05	
26th	51.5		11.9	10.35	57	9	180	19.95	13.75	37.75	209	30	60	138	83	180	499	16.5	90	1696.7	
27th	50	11	12.65	10.65	57.5		180		13.9		206		60	136	81	181	524		94.5	1618.2	
28th																					0
29th																					0
30th	50	11	11.7	10.55	57.5		176	19.7	13.75	37.25	204	30	60	137	81.5	182	511	16.5		1609.45	
31st	50	11	11.65	10.8	58	9	176	19.7	14	37	204	30	60	138	81	181	510	16.5	94	1711.65	
<b>TOTAL</b>	<b>1037</b>	<b>232.1</b>	<b>254.6</b>	<b>201.3</b>	<b>1194</b>	<b>81.65</b>	<b>3266</b>	<b>283.45</b>	<b>286.3</b>	<b>758</b>	<b>4607</b>	<b>530.5</b>	<b>1361.5</b>	<b>3158</b>	<b>1767</b>	<b>3667</b>	<b>10806</b>	<b>356.75</b>	<b>1812.5</b>	<b>35660.65</b>	

YR2004																					
DATE	AP																				
JULY	ICDC	HFC	MUMIAS S	REA VIPI	CMC HOLD	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIK	ATHI RIVER	KPLC	TOTAL	
1st	62.5	9.5	9.5	9	51			19	13	29.75	200	30.5	54	130	80	205	445	18.95	90	1456.7	
2nd	62.5		10.2	9	52		184		12.85	30	201	30.75	56	130	79	205	445	18.95	90	1616.25	
3rd																				0	
4th																				0	
5th	60	9.05	11.15	9	52				12.7	30	201	31	57.5	130	78	205	444			1330.4	
6th		9	11.7	9					12.65	30	204	30.5	59.5	131	77.5		444	18.95	89	1126.8	
7th	60	9.25	10.9	9	53		190		12.75	30.25	205	30	60	131			445	18.55	88.5	1353.2	
8th		9.35	11.75	9.45		9	185	18.95	12.85	30.75	208	30.5	56	136		203	445	17.6	89	1472.2	
9th	62	9.65	11	9	53		185	18.75	12.85	31	210	30.25	56	137	78	201	445	17.3	89	1655.8	
10th																				0	
11th																				0	
12th	59	9.6	11.1	9	54.5			18.9	12.75	30	210	30.75	57	142	78	211	444	17.35	88.5	1483.45	
13th		9.9	11.35	9	58.5	9.05	186	18.8	12.85	31	210	31	56.5	148	78	208	445	17.35	88.5	1628.8	
14th	58	10.55	11.15	9.05	60	9	184	18.75	12.85	32	210	31	57.5	150	78		445	17	88	1481.85	
15th	60	11.1	11.25	8.95	58	9.2	180	18.75	12.85	31	210	31.75	58.5	155	78	205	445	17	88	1689.35	
16th		12.2	11.2	9	57.5	9	185	18.75	12.8	32	210	31	59	156	80	203	450	17	88	1641.45	
17th																				0	
18th																				0	
19th		12.4	11.05			9	184	19	12.85	31	210		59.5	155	80		448	17.5	85	1334.3	
20th		11.95	11	8.95		8.95	185	18.8	12.8	32.75	210	30.25	62	153	79.5	200	449	17.95	87	1578.9	
21st		11.5	10.15	9	56.5	9	185		12.85	33	210	31	67	151	79.5		449	18.05	87	1419.55	
22nd		11.5	10.4	9	58.5	9	180	18.8	12.9	33	210	30.5	65.5	150	79	200	449	18	88	1633.1	
23rd	54.5	11.25	10.55	9	56		180	18.25	12.7	32.25	208	30.25	65.5	146	79.5		450	18	90	1471.75	
24th																				0	
25th																				0	
26th	51	11.1	10.25	9	56	9	180	18.25	12.8	33.75	205	31	66	147	79	199	450	18	93	1679.15	
27th	49.75	11	10.3	9	56	9		18	12.75	33.5	205	31	66	145	79	198	454	17.95	94.5	1499.75	
28th	49.5	10.8	11.25	9.05	56.5		199	17.75	12.6	34.5	207	31	66.6	143	79.5	198	459	18	94.5	1697.55	
29th	48	11	11.4	9.05	56	9	185	17.85	12.7	36	210	30	66	142	79.5		462	17.9	91	1494.4	
30th	48	10.55	11.3	9		9	185		12.75	37	210	30.25	66	142	80	200	467	17.25	91	1626.1	
<b>TOTAL</b>	<b>784.75</b>	<b>222.2</b>	<b>239.9</b>	<b>189.5</b>	<b>945</b>	<b>117.2</b>	<b>3142</b>	<b>297.35</b>	<b>281.45</b>	<b>704.5</b>	<b>4564</b>	<b>644.25</b>	<b>1337.6</b>	<b>3150</b>	<b>1579</b>	<b>3041</b>	<b>9879</b>	<b>374.6</b>	<b>1877.5</b>	<b>33370.8</b>	

YR2004	AP																				
DATE	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTI	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAY	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIK	ATHI RIVER	KPLC	TOTAL	
1ST																					0
2nd	67	10	10.95	9.05	56		184		12.75	28	231	32	58	156	80	200	415	19.85	95	1664.6	
3rd	67	10	11.8	8.95	61.5	9	185	23.5	12.65	29	228	30.5	59.5	155	80		414	19	95	1499.4	
4th	67	10.85	11.5	9	65.5	9		21.25	12.75		228	30	59	155	80	197	411	18.45	93.5	1478.8	
5th																					0
6th																					0
7th	67	10.6	11.6	9	64	9	185	19.5	12.6		224	31	59.5	154	79.5		410	17.9	94	1458.2	
8th	67	11.6	11.55	9.4	64.5	9.2	186	19.05	12.6		224		59.5	149	80	200	411	17.55	93	1624.95	
9th	67	12	11.9	10.3	64.5		185	19.1	12.8		223		61	150	79.5	200	410	17.5	95.5	1619.1	
10th	67	12	11.9	10.1	64.5	9.15	185	17.9	12.85	30.25	223	30.25	62.5	150	79.5	199	415	17.1	92.5	1689.5	
11th	67	12	11.55	10	61.5		185	18.45	12.85	29.25	220	30.5	62.5	150			413	17.3	93	1393.9	
12th																					0
13th																					0
14th	67	11.95	11.25	10	61		186		12.95		220	31	59.5	154	79.5	200	415	17.3		1536.45	
15th	67	12	11.15	10	59.5		185	19.2	13	29.25	220		59.5	149		210	437	17.4	92.5	1591.5	
16th	66.5	11.55	11.5	10	60		185	19.45	13	29.75	220	31	61	148	80	210	442	17.1	92.5	1708.35	
17th		11.5	10.4	9.6	58.5		188	19.2	13	29.5	219		62.5	148	80	210	450	17.3	91.5	1618	
18th	66.5	11.5	9.7	9.85	57		190	19.5	13.05	29.5	218		62.5	149	80	210	450	17.7	94	1687.8	
19th																					0
20th																					0
21st	66.5	11.45	8.8	9.5	57		193	19.95	13.15	30	218	30	61	147	79.5	210	448	17.75	95	1715.6	
22nd	63.5		8.9		55	8.85	192		13.2	30	217	30	59	145	77		449	19.25	95	1462.7	
23rd	65.5	11.45	9.45	9.1	55		187	19.7	13.2	30	216	30.75	58.5	142	78	210	441	19	95	1690.65	
24th	67	11.25	9.05	9	55	9	182		13.25	30	210	30.5	57	140	80	210	443	19.3	95	1670.35	
25th		11	9	9	53	9	186	19.6	13.25		207	31	55	139	79	210	445	19.45	94	1589.3	
26th																					0
27th																					0
28th		10.8	9		52.5		186	19.6	13.3	29.25	199	30	53	139	79	210	444	19.45	92	1585.9	
29th		10.65	9	9.1	52			19.55	13.15		200	30.75	53	130	79.5		445	18.95	90	1160.65	
30th		9.9	9.05	9	51	9	186	19.5	13	30	200	30	53	130	79.5	210	445	18.95	91.5	1594.4	
<b>TOTAL</b>	<b>1065.5</b>	<b>224.05</b>	<b>219</b>	<b>179.95</b>	<b>1228.5</b>	<b>81.2</b>	<b>3541</b>	<b>334</b>	<b>272.35</b>	<b>413.75</b>	<b>4565</b>	<b>489.25</b>	<b>1236</b>	<b>3079</b>	<b>1509.5</b>	<b>3296</b>	<b>9053</b>	<b>383.55</b>	<b>1869.5</b>	<b>33040.1</b>	

YR2004	AP																				
DATE	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAY	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI RIVER	KPLC	TOTAL	
1ST																					0
2nd	67	10	10.95	9.05	56		184		12.75	28	231	32	58	156	80	200	415	19.85	95	1664.6	
3rd	67	10	11.8	8.95	61.5	9	185	23.5	12.65	29	228	30.5	59.5	155	80		414	19	95	1499.4	
4th	67	10.85	11.5	9	65.5	9		21.25	12.75		228	30	59	155	80	197	411	18.45	93.5	1478.8	
5th																					0
6th																					0
7th	67	10.6	11.6	9	64	9	185	19.5	12.6		224	31	59.5	154	79.5		410	17.9	94	1458.2	
8th	67	11.6	11.55	9.4	64.5	9.2	186	19.05	12.6		224		59.5	149	80	200	411	17.55	93	1624.95	
9th	67	12	11.9	10.3	64.5		185	19.1	12.8		223		61	150	79.5	200	410	17.5	95.5	1619.1	
10th	67	12	11.9	10.1	64.5	9.15	185	17.9	12.85	30.25	223	30.25	62.5	150	79.5	199	415	17.1	92.5	1689.5	
11th	67	12	11.55	10	61.5		185	18.45	12.85	29.25	220	30.5	62.5	150			413	17.3	93	1393.9	
12th																					0
13th																					0
14th	67	11.95	11.25	10	61		186		12.95		220	31	59.5	154	79.5	200	415	17.3		1536.45	
15th	67	12	11.15	10	59.5		185	19.2	13	29.25	220		59.5	149		210	437	17.4	92.5	1591.5	
16th	66.5	11.55	11.5	10	60		185	19.45	13	29.75	220	31	61	148	80	210	442	17.1	92.5	1708.35	
17th		11.5	10.4	9.6	58.5		188	19.2	13	29.5	219		62.5	148	80	210	450	17.3	91.5	1618	
18th	66.5	11.5	9.7	9.85	57		190	19.5	13.05	29.5	218		62.5	149	80	210	450	17.7	94	1687.8	
19th																					0
20th																					0
21st	66.5	11.45	8.8	9.5	57		193	19.95	13.15	30	218	30	61	147	79.5	210	448	17.75	95	1715.6	
22nd	63.5		8.9		55	8.85	192		13.2	30	217	30	59	145	77		449	19.25	95	1462.7	
23rd	65.5	11.45	9.45	9.1	55		187	19.7	13.2	30	216	30.75	58.5	142	78	210	441	19	95	1690.65	
24th	67	11.25	9.05	9	55	9	182		13.25	30	210	30.5	57	140	80	210	443	19.3	95	1670.35	
25th		11	9	9	53	9	186	19.6	13.25		207	31	55	139	79	210	445	19.45	94	1589.3	
26th																					0
27th																					0
28th		10.8	9		52.5		186	19.6	13.3	29.25	199	30	53	139	79	210	444	19.45	92	1585.9	
29th		10.65	9	9.1	52			19.55	13.15		200	30.75	53	130	79.5		445	18.95	90	1160.65	
30th		9.9	9.05	9	51	9	186	19.5	13	30	200	30	53	130	79.5	210	445	18.95	91.5	1594.4	
<b>TOTAL</b>	<b>1065.5</b>	<b>224.05</b>	<b>219</b>	<b>179.95</b>	<b>1228.5</b>	<b>81.2</b>	<b>3541</b>	<b>334</b>	<b>272.35</b>	<b>413.75</b>	<b>4565</b>	<b>489.25</b>	<b>1236</b>	<b>3079</b>	<b>1509.5</b>	<b>3296</b>	<b>9053</b>	<b>383.55</b>	<b>1869.5</b>	<b>33040.1</b>	

YR2004																					
DATE	AP																				
MAY	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOL	EXPRES LTI	NATION M	SASINI LTC	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI RIVER	KPLC	TOTAL	
1st																					
2nd																					0
3rd	68.5	11.7	9.15	9.25	55	10.3	200		11.8	26.5	238		55.5	160	92	225	477	19.4	96.5	1765.6	
4th	68	11.25	9	9.1	54.5			17	11.8	27	237	30.75	55	159	90	224		19.25	96	1118.65	
5th	68.5	11	8.85	8.95	54		200	17.2	11.8	27.25	235	30	56	158			462	19.15	97	1464.7	
6th	67	11	8.65		53	10.05	196	17	11.8		232	30	56	157		220	450	1905	96	3520.5	
7th	69	11	8.35	9	53	10	195	17	11.8		229	30	56	155		215	414	19	96	1598.15	
8th																					0
9th																					0
10th	67.5	11	8.15		52.5		195	16.9	11.75		229	30	56.5	156		214	422	18.9	95	1584.2	
11th	67.5	10.7	8		53		194	16.75	11.8	29.5	229	40	57	150			425	19	95	1406.25	
12th		10.5	8	8.75			198	17	11.8	29.5	229		57	155			425	19.2	93	1261.75	
13th	67	10.5	8		52.5		197		11.8	30.25	229	37.25	59.5	150		210	425	19	93	1599.8	
14th	67	10.25	7.85	8.85	52		196	16.65	11.8	30.25	229		60	151	80		423	18.9	91.5	1454.05	
15th																					0
16th																					0
17th	67	10	8		51.5		194	16.5	11.6		232	34	60	155	80		424	17.55	92.5	1453.65	
18th	67	9.9	8.25	8.95	52		193	16.5	11.8		236		60	155	80		424	15.85	89.5	1427.75	
19th		10	8.25		49.75	9	189	16.5	11.8		231	34	57	155	79.5		424	15.5	88	1378.3	
20th	67	10	8.25		49				11.9	28	230	34	56	155	79.5	200	424	15.5	81.5	1449.65	
21st	67.5	10	8.4	8.45			185		12	26.5	234	33.75	55	157		197	419	15.8	81	1510.4	
22nd																					0
23rd																					0
24th	67	10	8.5	8.5		9.2	192		12.05	28.25	230	34	55	157	80	190	414	15.9	86.5	1597.9	
25th	67	10	9.25	7.95		9	186		12.6	26.5	234	31.5	58	158	80		415	16	92	1412.8	
26th	67	10	9.55	7.95		8.9	185	16.5	13	26	236	30	59.5	158	80	195	415	17.6	95.5	1630.5	
27th	67	10	9.65	7.95	49.5	9	185	25	12.8	26.5	238		58.5	159		198	415	19.35	95.5	1585.75	
28th	67	10.15	9.9	8.15	49.5		185		12.45	26.5	237		58	159	80	200	415	20.75	94.5	1632.9	
29th																					0
30th																					0
31st	68	10	10.2	8.65	51.5		181		13.05		235	30	59.5	161	80	200	415	20		1542.9	
<b>TOTAL</b>	<b>1281.5</b>	<b>218.95</b>	<b>182.2</b>	<b>120.45</b>	<b>832.25</b>	<b>75.45</b>	<b>3646</b>	<b>226.5</b>	<b>253</b>	<b>388.5</b>	<b>4889</b>	<b>489.25</b>	<b>1205</b>	<b>3280</b>	<b>981</b>	<b>2688</b>	<b>8527</b>	<b>2266.6</b>	<b>1845.5</b>	<b>33396.15</b>	

YR2004																					
DATE	AP																				
APRIL	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI RIVER	KPLC	TOTAL	
1ST	69	12	8.75	8.7				17.35	10.1		215	34	63	160	99	207	445	20	99.5	1468.4	
2nd		12	8.7	8.65		11.9			11	27	205	33.25	58.5	146	97	190	442	19.95	99.5	1370.45	
3rd																				0	
4th																				0	
5th	69	12	8.3	8.35	49.75		179	17.45	11.05	27	198	34	56.5	137	95	189	439	19.95	100	1650.35	
6th		12	8.35	8.45	47.5	11.45	165	17.2	10.55	27	186	33.75	53.5	124			438	20	100	1262.75	
7th	66	11.95	8.4	8.25	44.75		157	17	10.5	27	189	34	53	120	94	175	432	19.9	99.5	1567.25	
8th	66	12	8.4	8.1	46.5	11.2	153		10.85		202	33.5	53	132	90	170	429	20	99	1544.55	
9th																				0	
10th																				0	
11th																				0	
12th																				0	
13th	66	12	8.35	7.85	48.25	11	153	17	10.95		221	33.75	54	139		165	417	20	97.5	1481.65	
14th	66	11.8	8.35	7.9	50		155	17	11.2		243	33.5	58	152	93	172	405	20	99.5	1603.25	
15th	66	11.95	8.4	7.9	53		153		11.4	27.25	243	33.75	60.5	165	90	188	415	20	99	1653.15	
16th	66.5	12	8.6	7.95	55	11	153	17.3	11.5	27.5	243	33	66	180	90	205	440	19.95	100	1747.3	
17th																				0	
18th																				0	
19th	68.5	11.85	9.1	7.55	55	11	160	17.3	11.4	27.25	244	33.25	66	171	90	214	440	20	100	1757.2	
20th	69.5	11.55	9.95	7.75	55		173	17.3	11.5	27.25	248	32	64	169	90		447	20	99.5	1552.3	
21st	69.5	11.9	9.95	7.7	55		190	17	11.5	27.5	259	32	64	170	92.5		466	19.85	99	1602.4	
22nd		12	9.75	8.15	55		195	17	11.5		253	30.5	64	170	91.5	216	473	19.95	99.5	1725.85	
23rd	67.5	12	9.35	8.15	54.5		194	17	11.6	27	249	32	64	170	92	218	472	19.95	100	1818.05	
24th																				0	
25th																				0	
26th		12	8.8	8.6	55		196	17	11.7	27	247		63	168	90.5	220	475	19.95	98	1717.55	
27th	67	12	8.1	9	54.5		196	17	11.8	27	241	32	60.5	165	90		482		98.5	1571.4	
28th	67	11.95	8.4		55	10.45	196	17	11.85	27.25	240	32	59.5	161		220	483	19.9	98	1718.3	
29th	69.5	11.95	9	9.2	54	10.5	200	17	11.85	27.5	239	30	57.5	161	92		480	19.35	95	1594.35	
30th	69	11.85	9.1	9.1	55		200	16.9	11.85	27	238	30	56	160	92.5	225	480	19.25	97.5	1808.05	
31st																				0	
<b>TOTAL</b>	<b>1082</b>	<b>238.75</b>	<b>176.1</b>	<b>157.3</b>	<b>942.75</b>	<b>88.5</b>	<b>3168</b>	<b>290.8</b>	<b>225.65</b>	<b>407.5</b>	<b>4603</b>	<b>620.25</b>	<b>1194.5</b>	<b>3120</b>	<b>1569</b>	<b>2974</b>	<b>9000</b>	<b>377.95</b>	<b>1978.5</b>	<b>32214.55</b>	

YR2004																					
DATE	AP																				
APRIL	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI RIVER	KPLC	TOTAL	
1st	69	12	8.75	8.7				17.35	10.1		215	34	63	160	99	207	445	20	99.5	1468.4	
2nd		12	8.7	8.65		11.9			11	27	205	33.25	58.5	146	97	190	442	19.95	99.5	1370.45	
3rd																				0	
4th																				0	
5th	69	12	8.3	8.35	49.75		179	17.45	11.05	27	198	34	56.5	137	95	189	439	19.95	100	1650.35	
6th		12	8.35	8.45	47.5	11.45	165	17.2	10.55	27	186	33.75	53.5	124			438	20	100	1262.75	
7th	66	11.95	8.4	8.25	44.75		157	17	10.5	27	189	34	53	120	94	175	432	19.9	99.5	1567.25	
8th	66	12	8.4	8.1	46.5	11.2	153		10.85		202	33.5	53	132	90	170	429	20	99	1544.55	
9th																				0	
10th																				0	
11th																				0	
12th																				0	
13th	66	12	8.35	7.85	48.25	11	153	17	10.95		221	33.75	54	139		165	417	20	97.5	1481.65	
14th	66	11.8	8.35	7.9	50		155	17	11.2		243	33.5	58	152	93	172	405	20	99.5	1603.25	
15th	66	11.95	8.4	7.9	53		153		11.4	27.25	243	33.75	60.5	165	90	188	415	20	99	1653.15	
16th	66.5	12	8.6	7.95	55	11	153	17.3	11.5	27.5	243	33	66	180	90	205	440	19.95	100	1747.3	
17th																				0	
18th																				0	
19th	68.5	11.85	9.1	7.55	55	11	160	17.3	11.4	27.25	244	33.25	66	171	90	214	440	20	100	1757.2	
20th	69.5	11.55	9.95	7.75	55		173	17.3	11.5	27.25	248	32	64	169	90		447	20	99.5	1552.3	
21st	69.5	11.9	9.95	7.7	55		190	17	11.5	27.5	259	32	64	170	92.5		466	19.85	99	1602.4	
22nd		12	9.75	8.15	55		195	17	11.5		253	30.5	64	170	91.5	216	473	19.95	99.5	1725.85	
23rd	67.5	12	9.35	8.15	54.5		194	17	11.6	27	249	32	64	170	92	218	472	19.95	100	1818.05	
24th																				0	
25th																				0	
26th		12	8.8	8.6	55		196	17	11.7	27	247		63	168	90.5	220	475	19.95	98	1717.55	
27th	67	12	8.1	9	54.5		196	17	11.8	27	241	32	60.5	165	90		482		98.5	1571.4	
28th	67	11.95	8.4		55	10.45	196	17	11.85	27.25	240	32	59.5	161		220	483	19.9	98	1718.3	
29th	69.5	11.95	9	9.2	54	10.5	200	17	11.85	27.5	239	30	57.5	161	92		480	19.35	95	1594.35	
30th	69	11.85	9.1	9.1	55		200	16.9	11.85	27	238	30	56	160	92.5	225	480	19.25	97.5	1808.05	
31st																				0	
<b>TOTAL</b>	<b>1082</b>	<b>238.75</b>	<b>176.1</b>	<b>157.3</b>	<b>942.75</b>	<b>88.5</b>	<b>3168</b>	<b>290.8</b>	<b>225.65</b>	<b>407.5</b>	<b>4603</b>	<b>620.25</b>	<b>1194.5</b>	<b>3120</b>	<b>1569</b>	<b>2974</b>	<b>9000</b>	<b>377.95</b>	<b>1978.5</b>	<b>32214.55</b>	



YR2004																				
DATE	AP																			
MARCH	ICDC	HFC	MUMIAS S	REA VIPING	CMC HOLD	EXPRES LTI	NATION	SASINI LTD	KENYA AIR	TPS EASTE	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRI	ATHI RIVER	KPLC	TOTAL
1ST		17.65	14.05	7.55	71.5		224	19.3	10.15		300	41.5	83.5	228		311	493	22.25	120	1963.45
2nd	87.5	17.55	15.45	7.75	74	10.05	224			11	299	40.5	82.5	225	110	310	493	23.25	120	2150.55
3rd		17.45	17	8.1	72.5		224		12.1	21	295	37.5	83	217	110	310	493	23.75	120	2061.4
4th	89	17.65	18.7	8.9	72	10.95	226		13.3	22.5	290	38.5	82	212	149	310	492	24	120	2196.5
5th	88	17.45	18.6	9.75	71.5	12.15	224	20	13.75	24.75	290	37	80	206	109	310	490	24	119	2164.95
6th																				0
7th																				0
8th		17.35	16.8	10.65	73	12.05	224	21.75	14.85	27	287	36.25	80.5	201	109		490	24.25	115	1760.45
9th	88	17.2	16.2	11.65	72.5			22	14.15	28.75	282	35.25	80.5	201	109	304	476	24	111	1893.2
10th	88	16.4	14.6	11.55	70	12	230	21.5	12.85	31	277	34.75	80.5	201	110	303	483	23	108	2116.6
11th	88.5	15.1	13.15	10.4	69	12	224	21	11.6	31	269	34	80.5	204	105	303	488	22.5	100	2101.75
12th	86	14.25	11.85	10.1	67.5	11.75	224	22.25	10.55	30.75	265	34	79	208		302	486	21	95.5	1979.5
13th																				0
14th																				0
15th	85	13.1	10.85	10	63	12	222		9.6	30	255	32.75	72	207	101	303	485	21.25		1932.55
16th	76.5	12.7	9.85	9.65	63	12	220	23	10	30	240	31.25	71	200	105	303	484	20	91	2011.95
17th	75	12.15	10.75	9.2	60	12.1	216	21.25	10.9	30	241	31.75	71	197	101	299	484	19.75	95	1996.85
18th	72.5	12	11.8	9.5	60	12	215	19.35	11.9	30	240	31.5	71	197	109	293	484	20	95	1994.55
19th	73.5	12.8	12.95	9.5	57.5	12	215	19.05	12.15	29.5	242	30.75	71	197	108	288	481	20	95	1986.7
20th																				0
21st																				0
22nd	74	12.95	13	9.4	56.5	12		18.95	12.1	29.75	241	30.25	71	193			483	20	95.5	1372.4
23rd	71	13	12.05	9.4	55.5	12	210	18.5	12		241	30	71.5	189	108		483	21	97	1653.95
24th	68.5	13.05	10.85	9.4	55.5	12	206	17.35	11.8		241	30.5	70.5	190		276	480	21	95	1808.45
25th	69.5	13	9.8	9.05	55.5	12	202		11.05	30	240		67	188			479	20.75	96	1502.65
26th	69	12.9	8.75		54.5	12	201		10.65		239	33.5	64	188	99.5		477	20.5	97	1587.3
27th																				0
28th																				0
29th	69	12.6	8.7	9.05	55	12	200		9.75		235	34.5	65	188	100	260	468	20.5	97	1844.1
30th	69	12.05	8.5	9	53		200		9.45	30	237	34	65	188	100	235	472	19.95	97	1838.95
31st	69.5	12.1	8.75	9			188	17.5	9.6	28.75	228	34.5	65	183	99.5	229	461		97.5	1740.7
<b>TOTAL</b>	<b>1557</b>	<b>332.45</b>	<b>293</b>	<b>197</b>	<b>1402.5</b>	<b>213.05</b>	<b>4519</b>	<b>302.75</b>	<b>265.25</b>	<b>484.75</b>	<b>5974</b>	<b>754.5</b>	<b>1707</b>	<b>4608</b>	<b>1942</b>	<b>5249</b>	<b>11105</b>	<b>476.7</b>	<b>2276.5</b>	<b>43659.45</b>

YR2004																					
DATE	AP																				
FEB	ICDC	HFC	MUMIAS S	REA VIPING	CMC HOLD	EXPRES LTD	NATION M	SASINI LTD	KENYA AIR	TPS EASTER	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI RIVER	KPLC	TOTAL	
1st																					
2nd	77	18.8	6.85	7.8		9	203	18		28.75	294	47.5	80	200	127		497	26	100	1740.	
3rd	80	18	6.2	7.75		8.75	204		9.55		295	45	80	200	126	303	498	24.25	99	2004.4	
4th	77.5	18	6.45	7.9	137		205	18	9.5	28.75	295	42.25	80	200		303	494	23.5	106	2051.8	
5th	79.5	17.7	6.5	7.95	136		205	18	9.35	29.25	298	40	82	200	128	302		23.25	106	1688.1	
6th	81	17.05	6.5	7.5	133		210	17	9.3	32	304	40	84.5	201	128	302	484	23.5	109	2189.3	
7th																					
8th																					
9th	81	17.05	6.5	7.8	79		212	16.95	8.55	35	302	41.25	88.5	203	125	305	479	23.25	110	2140.85	
10th	83.5	16.45	6.45	7.6	73		217	17	8.6	34.75	305	42	88	206	125	302	478	23.25	110	2143.6	
11th	83.5	15.45	6.55	7.5	71		217	17	9	35.25	306	42	88.5	210	123	303	484	23	110	2151.75	
12th	83.5	15.2	6.95	7.5	70		218	17	9	35	302	41.5	89.5	212	120	305	483	23	108	2146.15	
13th	83.5	15.3	7	7.3	68		217	17	9.05		321	41	89.5	230	120	311	514	23	102	2175.65	
14th																					0
15th																					0
16th	86.5	15	7.25	7.5			219	17	9	34.25	319	42	90	233	120	310	511	23	108	2151.5	
17th	85	15	7.85	7.45	68		219		9.1	35	310	42	89.5	234	120	310	502	23.5	107	2184.4	
18th	85.5	15.1	8.55	7.4	68		217		9.1	35.25	304	45	89.5	235	120	312	500	22.5	105	2178.9	
19th	86.5	15.45	8.55	7.5	69		219		9.1	35	303	46	87.5	234	99	315	495	22.75	105	2157.35	
20th	87.5	16	7.9	7.3	70		219	17.05	9.1	36	302	45	82	233	104	317	496	22.5	105	2176.35	
21st																					0
22nd																					0
23rd	86.5	17.25	8.25	7.45	69.5		219	17	9.1	35	303	44.75	81.5	228	105	314	495	22.25	132	2194.55	
24th	88	17.85	8.8	7.35	69.5		220	17.35	9.25	34.5	303	44.75	85.5	228	110	310		22.5	121	1697.35	
25th	88	18	9.55	7.5	72.5		220	17.5	9.35	34	304	43.5	88	227	110	310	495	22.5	119	2195.4	
26th	89.5	17.95	12.8	7.45	72.5		223	17.7	9.35	33.75	302	42.5	90	230	111	308	495	22.5	119	2204	
27th	90	18	13.15	7.4	72.5		225		9.85		301		87.5	245		310	495	22.25	119	2015.65	
<b>TOTAL</b>	<b>1683</b>	<b>334.6</b>	<b>158.6</b>	<b>150.9</b>	<b>1398.5</b>	<b>17.75</b>	<b>4308</b>	<b>259.55</b>	<b>174.2</b>	<b>571.5</b>	<b>6073</b>	<b>818</b>	<b>1721.5</b>	<b>4389</b>	<b>2121</b>	<b>5852</b>	<b>8895</b>	<b>462.25</b>	<b>2200</b>	<b>41588.35</b>	

YR2004																				
DATE	AP																			
JAN	ICDC	HFC	MUMIAS S	REA VIPINC	CMC HOLD	EXPRE	NATION M	SASINI LTD	KENYA AIR	TPS EASTER	BARCLAYS	DIAMOND	KCB	STANCHAR	BAMBURI	BAT	EAST AFRIC	ATHI RIVER	KPLC	TOTAL
1st																				0
2nd	75.5	12	4.45		82		191	20	8.4		281	28.5	56.5	190	125	276	440	21.5	59.5	1871.35
3rd																				0
4th																				0
5th	75.5	12	4.45	5.9	82.5	9	190	20	8.45		281		57.5	190	125	271	442	21.25	59	1854.55
6th	76		4.35	6		9	191		8.5	27.25	282	29	58.5	190	125	270	442	21	60	1799.6
7th	76.5	12.05	4.3	6	82.5		192		8.25	27.25	282	29.5	58	190	125	270	444	20.25	59	1886.6
8th	77	12.05	4.3	6	82.5		191	20	8.3	27.5	285	30	57.5	192	126	271	450	20	63	1923.15
9th	76.5	12.2	4.2		82.5		192	20	8.35	27.75	296	31	58	195	126	278	458	19.9	64.5	1949.9
10th																				0
11th																				0
12th	76.5	12.15	4.35	6	103		192		8.25		298	31.75	59	199	126	286	463	19.8	64.5	1949.3
13th	77	12.05	4.5	6	112		193	19.7	8.2	27.5	293	32.5	59.5	197	126	290	478	19.8	66	2021.75
14th	76.5	12.3	4.6	5.95	118		195	19.75	8.25	28	288	32.5	59.5	197	126	293	480	19.5	69	2032.85
15th	77	12.4	4.65	5.9	111		196		8.3	28.5	283	33.75	61	194	126	292	503	19.3	75.5	2031.3
16th	77.5	12.6	4.7	7.2	101		197	19.75	8.3	28.5	284	34.5	65.5	195	126	291	495	19.55	82.5	2049.6
17th																				0
18th																				0
19th	77	12.4	4.65	7.05	106		196	19.75	8.35	28.5	292	36	72	196	127	290	494	19.9	90.5	2077.1
20th	77	12.5	4.7	6.75	106		196	20	8.4	28.5	289	36	71.5	193	126	290	495	19.8	95.5	2075.65
21st	78	13.2	4.7	6.5	106		197	19.55	8.55	28.5	281	36	68.5	192	127	291	499	20	94	2070.5
22nd	78	14.45	4.7	7.1	109	9	199		8.6	28.25	280	38	68.5	189	127	292	498	19.95	89.5	2060.05
23rd	78	15	4.8	7.15	118		198	18.5	8.85	28.75	280	40.5	71.5	190	126	291	500	20	90	2086.05
24th																				0
25th																				0
26th	78	15	4.8		119		199		8.95	28.25	290	41.5	77.5	192	126	294	500	20	98.5	2092.5
27th	79	16.4	5	7.1	119		198	18.2	9	29	292	45	83.5	199	126	296	500	20	101	2143.2
28th	78	18	5.35	7.8	130		204	18	9.4	29.5	304	48.75	91	207	129	302	499	20	111	2211.8
29th		19.25	5.85	8	136		201	17.9	9.55	29.75	300	49	90	206	129	302	499	22	111	2135.3
30th	78	18.9	6.4	8	140		202	18	9.8	29.5	297	48.5	83.5	201	126	303		24	105	1698.6
31st																				0
<b>TOTAL</b>	<b>1542.5</b>	<b>276.9</b>	<b>99.8</b>	<b>120.4</b>	<b>2146</b>	<b>27</b>	<b>4110</b>	<b>289.1</b>	<b>181</b>	<b>510.75</b>	<b>6058</b>	<b>732.25</b>	<b>1428</b>	<b>4094</b>	<b>2651</b>	<b>6039</b>	<b>9579</b>	<b>427.5</b>	<b>1708.5</b>	<b>42020.7</b>