Investors Perceptives on the NASI AND THE NSE 20 Share Index as Performance Measurement Indicators at the Nairobi Securities Exchange In Kenya

Cliff Osoro
PhD Student
Kenyatta University
Kenya

Jagongo Ambrose, PhD
Senior Lecturer
School of Business
Kenyatta University
Kenya

Abstract

The NSE 20 share index has been victim of criticism from majority of investors and investment analysts due to its inherent shortcomings that make it a weak performance measurement indicator. As a result, the NSE introduced the NASI in February 2008 as a complimentary index. The purpose of this paper to compare the two indices and find out whether any significant difference exists between the two indices. This was an empirical study and both primary and secondary data was used. Historical data on the daily performance of the NSE market for the two years period (March 2008- February 2010) was obtained from the NSE information centre. The data collected was used to test the hypothesis of no difference between the two indices at 5% level of significance using the Z test. Correlation analysis was also carried out to determine if significant correlation exists between the two indices with stock prices and market capitalization. Primary data was obtained using a questionnaire administered on 17 markets analysts with one analysts being drawn from each of the 17 NSE member firms. The findings of the study indicate that there is no significant difference between the two indices

Key Words: Nairobi All Share Index (NASI) and Nairobi Stock Exchange 20 share Index(NSE 20 Share index)

Introduction

Background information

One of the major functions of the stock market is to assist in the transfer of savings to invest in productive enterprises as an alternative to keeping the saving idle. It should be appreciated that in as much as an economy can have savings, the lack established mechanisms for channeling those savings into activities that create wealth would lead to mis-allocation or waste of those savings. A robust stock market assists in the rational and efficient allocation of capital, to the most deserving users and very important, is that the stock exchange provides investors with an efficient mechanism to liquidate their investments in securities.(Reilly and Wright, 2004). The very fact that investors are certain of the possibility of selling out what they hold, as and when they want, is a major incentive for investment as it guarantees mobility of capital in the purchase of assets.

When a national index does not measure accurately the performance of the market then investors are misled and eventually channel their scarce capital to undeserving users and eventually leading to wastage. In his article , NSE gets a new index but will it mend the bias" Wahome (2008) argues that the NSE 20 share index has been victim of criticism from majority of investors and investment analyst due to its inherent shortcomings that make it a weak performance measurement indicator. To begin with, the NSE 20 share index measures the average performance of 20 large cap stocks or blue chip companies drawn from different industries . Currently the NSE has a total of 52 listed companies. Basing an index on only 20 blue chip companies out of a stock market with 52 listed companies makes the NSE 20 share index biased.

According to Wahome (2008), "there have been complaints about the computation of the NSE 20 SHARE Index. The feeling has been that it is not reflective of the market performance," he adds that this is partly because the index is equally weighted. For instance, this meant that KenGen, which has a market capitalization of about Sh57 billion carries the same weight as Express Kenya, under market capitalization which is only SH814 million or a seventh of its size as at February 2008. Assigning equal weights to two companies with such a huge difference in their market capitalization is obviously unrealistic. Further still, experience indicates that most large cap stocks do not record a high performance as compared to low cap stocks. At times small cap counters record growth averaging at 50%, while this is unlikely for large cap stocks. This is due to the fact that stocks of such companies are unaffordable to most retail investors. Most retail Investors will buy low priced stocks in anticipation of price increases so as to sell such stocks and make capital gains.

Conversely, they will shun the high price stocks because they lack the volume advantage. Retail investors want to go for cheap stocks not blue chip and as such the index cannot give the true sentiment of the market," says Polycarp Ngoge, research and development director, Tsavo securities also quoted by Wahome (2008). This makes the 20 share index to be biased towards a large cap counters and thus fails to transmit the right signals on the entire market performance to potential investors. Ideally an index should be sample of the market and not the entire population as it is with the NASI . Looking at the market some of the counters are very illiquid with very few shares available for trading in any given day and their inclusion will not make much difference in improving the accuracy of the index. The NASI is weighted based on the size of the respective companies. Thus a disproportional representation goes to a large extent to the large or giant companies.

In a bid to improve the performance of the NSE 20 share index, the NSE reviewed the index and made certain fundamental changes to make it better measure of what is going on in the market and the economy. In line with international best practice, market capitalization (minimum of Kshs 50 million) and liquidity of the shares became the underlying criterlying criteria for inclusion in the index. A listed company would need; to be quoted for at least one year,and have twenty (20) shares will available for trading at the stock market (float). Tradability (liquidity) of the shares will be tracked by the turnover, number of shares traded, and number of deals concluded on each counter.

Based on the revised, NIC Bank was replaced by ICDC Investment Company (Now Centum LTD) In the finance sector. In the industrial and allied sector, the Kenya Electricity Generating Company replaced BOC Gases; Mumias Sugar Company was also added to the index raising the companies' representative of this sector from seven to eight. The agricultural sector is now represented by two companies- Sasini Tea and Coffee and Rea-Vipingo. Unilever Tea was taken off the NSE 20 SHARE Index . In the commercial and services sector, CMC replaced Uchumi Supermarkets Ltd(under suspension since June 2006) : In the Alternative Investment Market Segment (AIMS) Market , Express Ltd replaced Williamson Tea. However, these changes did not improve the performance of the index and on February 25th 2008, NSE introduced the NSE ALL Share Index (NASI) with its base year being 1st January 2008 and a base value of 100. The introduction of NASI was part of some of the recommendations by the International Finance Corporation (IFC) and regulators of world stock markets to ensure a comprehensive dissemination of market information to investors.

Problem Statement

The purpose of introducing the NASI was to provide a better performance tool in the stock market as compared to the NSE 20 share. The NSE 20 share index had been victim of numerous criticisms mainly due to its biased nature as a result of basing the index on only 20 blue chip companies which in most cases do not represent accurately the underlying market position. (Wahome, 2008) when such markets indicators such as the volume of shares traded and the value of such shares are on the increase while index is continuously declining it sends confusing signals to the public and the prospective investors. To be effective, an index should be accurate. This implies that the index movement must correspond to all underlying price movements at the market. Where there is no correspondence, cause may be as a result of the bias. This therefore misleads the parties who rely on the index for decision making. Unlike the 20 share index, which measures price movement in selected, relatively stable and best performing 20 listed companies, NASI incorporates all listed companies irrespective of their performance and their time of listing. NASI is calculated based on market capitalization, meaning that it reflects the total value of all listed companies at the NSE.

However, the performance of the NASI has equally been victim of criticism. Ideally an index should be a sample of the market and not the entire population as it is with the NASI. A small percentage of the population will provide a valid indication of the behavior of the total population if the sample is properly selected. The sample should be representative of the total population otherwise it would be meaningless. A large biased sample is no better than small biased sample (Brown and Reilly, 2008). Some counters are very illiquid with very few shares available for trading in any given day and their inclusion have not made much difference in improving the accuracy of the index. The main purpose of this research was to find out whether the introduction of NASI has provided solution to the shortcomings of the NSE 20 share. The research sought to find out the perception of the investors on whether the NSE 20 share index indeed biased as accused and so is there any significant difference between the two indices.

The study sought to investigate the investors' perception on the performance of the two indices. The research made a comparison of the two indices to find out whether the introduction of the NASI at the NSE had brought any significant improvement or eliminated the bias associated with the NSE 20 share index.

Specific Objectives
More specifically the research seeks to:
a) Find out whether difference exists between the NASI and the NSE 20 share index
b) Find out whether difference exists in the relationship between the two indices and the underlying market capitalization.
c) Find out whether difference exists in the relationship between the two indices and the underlying stock price.
d) Find out which of the two indices is a better performance measurement indicator.

Research Hypothesis
Ho_1: There is no significant Difference between: the NASI and the NSE 20 share Index as performance measurement indicators (MNSE 20 share = M NASI)

Ho_2. The correlation between the indices coefficients and the underlying market capitalization is not significantly different (r NASI =r NSE 20 share)

Ho_3: The correlation between the indices coefficients and the underlying stock prices is not significantly different (r NASI = r NSE 20 Share)

Ha_4. Both indices (NASI and NSE 20 Share) perform equally in the market

Literature Review

Theoretical Review

According to Brown and Reilly (2008) a stock index performs several functions in the economy. An index is used to compute the total returns and risk measures for the aggregate market or some component of the market over a specified period. Such computed risk and returns are used to judge the performance of individual's portfolios. The aggregate stock and bond market index can be used as a benchmark to judge the performance of professional money managers. The aggregate market index is also used as a proxy for the market portfolio. Security analysts, portfolio managers and academicians doing research use security market indices to examine the factors that affect the aggregate security price movements. While technicians use the index to predict future price movements. The technicians believe that past price movements can be used to predict the future and hence the past movements in the index can be used to determine what the market would be like in the future. In determining the companies to be included in the index, a random selection or by non random selection method technically designed to incorporate the desired population is used.

The source of the sampled companies is equally important. In a case where there are significant differences between the segments of the population separate samples may be required. Because indices are calculated from different base values, the percentage change is more important than the actual numeric value. Technically, one can't actually invest in an index. But one can invest in products like Exchange Traded Funds (ETFs) or derivatives which are based on these indices.

According to Modigliani and Fabozzo (2008) although the correlation coefficient in the movement of the indices is extremely high the indices do not move in exactly the same way at all times. The difference in the movement of the indices depends on the way the index is constructed. Three factors enter into the construction of the index: The universe of stocks represented by the sample underlying the index, relative weights assigned to the index and the method of averaging across the index. Two methods of averaging may be used: the first and the most common is the arithmetic average. This is just a simple average of the stocks calculated by summing up after weighing and dividing by the sum of the weights. The second method is the geometric mean that involves multiplication of the components after which the product is raised to the power of 1/No. of components.

Chandra (2008) points out three types of indices : Price weighted index, Equal Weighted index and a market value weighted index. A price weighted index reflects the sum of the prices of sample stocks on a certain date in relation to base date. In a price weighted index, the index is calculated by taking an arithmetic mean of the current stock prices. This implies that the index is affected by the current prices. The price weighted index assumes that the investor will buy one share of each stock included in the index. The best example of a price weighted index is the DOW Jones Index.

In an equal weighted index all the stocks are assigned equal weights irrespective of their value. The index reflects the simple arithmetic average of the prices relative of sample stocks on certain date in relation to the base date/ the equal weighted index assumes that the investor will buy one share of each stock included in the index. The best example of a price weighted index is the Dow Jones Index discussed later in this chapter. In an equal weighted index all the stocks are assigned equal weights irrespective of their value. The index reflects the simple arithmetic average of the prices relative of sample stocks on certain date in relation to the base date/ the equal weighted index assumes that the investor invests an equal amount of money in each stock included in the index. An example of such an index is the NSE 20 share index. The value weighted index reflects the aggregate market capitalization of sample stocks of certain date in relation to the base date. A value weighted index assumes that the investor allocates money across various stocks included in the index in such a way that weights are assigned to the various stocks are proportional to their market capitalization. The Nikkei 225 and the Nairobi All share Index represent example of value weighted indices in a stock market.

Theoretical Framework

Several authors have advanced theories that try to explain the importance of including stocks in the index. Three of such theories have been discussed below.

Price pressure theory

Prutt and Wei (1986) argue that once a stock is included in the index, the demand for such a stock increases and hence leading to an increase in both it price and volume traded. They however argue that such an increase on price is temporal as with time investors in search of stocks with superior returns on investment will substitute between shares eventually resulting in the restoration of the equilibrium price. This theory was later criticized by Woodrige and Ghosh (1986) in their liquidity theory. According to the two liquidity of the stock is the ability of the stock to be sold as quickly as possible as at when need arises. They further argue that the inclusion of a stock in an index increases its liquidity. The increase in liquid is as a result of increased demand for the stock. The increased liquidity will eventually lead to a permanent increase in prices

The imperfect substitutability theory

According to Sheifer (1989) some of the price effects as a result of the inclusion of a stock in the index are permanent. This is because the performance of some stock cannot be substituted with another. This implies that other assets are not perfect substitutes of the share included in the index. This implies that other assets are not perfect substitutes of the share included in the index. This theory is limited since it ignores the fact some investors will diversify risk by investing in stocks of firms in various industries even when such stock are currently doing well. Therefore stocks can be perfectly substituted with each other.

The information theory

This theory was advanced by Jain (1988). According to him the decision to include a firm stock in the index conveys very important information to the market regarding the firms' future prospects in Growth.

Such inclusion of a firm's stock in the index sends a positive signal to the market that the firm expect a bright future and hence increased demand in future for its stock. However it should be noted that at times the inclusion of a firm stock in the index can send wrong signals to the public. Equally there are several other factors that may eventually affect the future prospects of the firm.

Empirical Literature Review

Table 2. Correlation coefficients for selected US stock indexes based on monthly returns (January 1987-March 2000)

	Dow Jones 30	Nasdaq composite	NYSE composite	Russell 1000	Russell 2000	S%P 500	Value line composite	Wilshire 5000
Dow Jones 30	1.00							
Nasdaq composite	0.74	1.00						
NYSE composite	0.95	0.80	1.00					
Russell 1000	0.93	0.85	0.98	1.00				
Russell 2000	0.70	0.88	0.76	0.79	1.00			
S%P 500	0.95	0.83	0.98	0.99	0.75	1.00		
Value line composite	0.87	0.84	0.92	0.91	0.90	0.89	1.00	
Wilshire 5000	0.92	0.89	0.97	0.99	0.85	0.98	0.93	1.00

Source: Investment Technologies Inc.

In a research conducted by investment technologies inc. to determine the correlation coefficients of selected US stock indices based on monthly returns for the 13 year period January 1987-March 2000 results obtained were as above. Generally from the correlation coefficients high similarity was found to exist between the indices. The difference in the correlation coefficients was attributed to the sample of firms included in each particular index. Most of the indices are value weighted except the Dow Jones are value weighted and include a large number of stocks. Therefore the computational procedure is generally similar and the sample sizes are large or are all encompassing. Thus the major difference between the indexes is the sample of stocks included from the different segments of the US stock market. Reilly and Wright (2004) conducted research to determine correlation coefficients of the monthly price changes for a set of US and non US equity market indices with the S & P index. 1980-2001.

Table 3: Correlation coefficients of monthly price changes for a set of US and non US equity market indices with the S & P Index (1980 – 2001).

STOCK INDIXES	S%S 500
Wilshire 500	0.983
Newyork stock exchange composite	0.993
Russell 3000	0.992
Russell 1000	0.886
Russell 2000	0.783
Financial times index	0.667
Frankfurt index	0.586
Nikkei index	0.418
Tokyo stock exchange index	0.328
IFC emerging market	0.392
MS word index	0.604
Brinson QSMT	0.915

Source: Frank K. Reilly and David J. Wright "analysis of the risk adjusted performance of global assets" journal of portfolio management 30 no. 3(2004) pgs. 63-77

In their findings a high positive correlation (0.98-0.99) between the S&P 500 and the several comprehensive US equity indices, Wilshire, NYSE and the Russell 2000. In contrast there was lower correlation between comprehensive indexes and the various style indexes such as the Russell large cap 1000(0.866) or the Russell 2000. Small cap index (0.783). the exhibit contains a listing of correlation coefficients of the monthly price changes for a set of US and non US equity market indices with the S&P index during the 22 year period from 1980-2001. The NSE 20 share index is an equi-weighed geometric mean of 20 large ordinary stocks traded on the Nairobi stock exchange. The geometric mean is much easier to compute than may appear to be the case at first sight especially with the availability of simple electronic calculators. Odera (1999) sought to find out whether there is a significant difference in the performance measurement indicators in the NSE namely the NSE 20 share index, market capitalization and the laspeyes formulae used to calculate a composite index and a 20 share index. The paasches formulae and the Fishers ideal method were also used to compute a 20 share index.Taking week 14 of 1996 as the base date of these two indices and the NSE 20 share value of 3007.9 as the base value by week 19 of 1999 the geometric index (NSE 20 share index) had risen by 6.29% while the arithmetic index was at 19.32% higher than the base date. This represented a serious understatement and renders the Geometric index such as the NSE 20 share index for measuring long-term price movements. The fisher method was found to be the most representative, consistent, bias free and accurate measure of value movement and market performance of the NSE.

Conceptualization

This research will adopt a comparative study approach in analyzing the two indices. According to Ross (1992) indices must satisfy two criteria to be used as benchmarks of performance in the stock market. One of those measures is the measurability implies that the construction o the index at that particular time should depend on the information available at the market regarding the stocks to be included in the index. The other is the investment realization criterion. This implies that their movement must describe the actual movement in the financial asset and the returns on the index are realizable by an investor who has formed and held the index.

The performance of the NSE market is measured using two main indicators, the NASI and the NSE 20 share index. The performance of the two indices is published on a daily basis and the investors' perception will therefore be affected by the reliability, accuracy, effectiveness and representativeness of the two indices as illustrated by Fig. 1 below.

Fig. Conceptual framework

Independent variables   Dependent variable
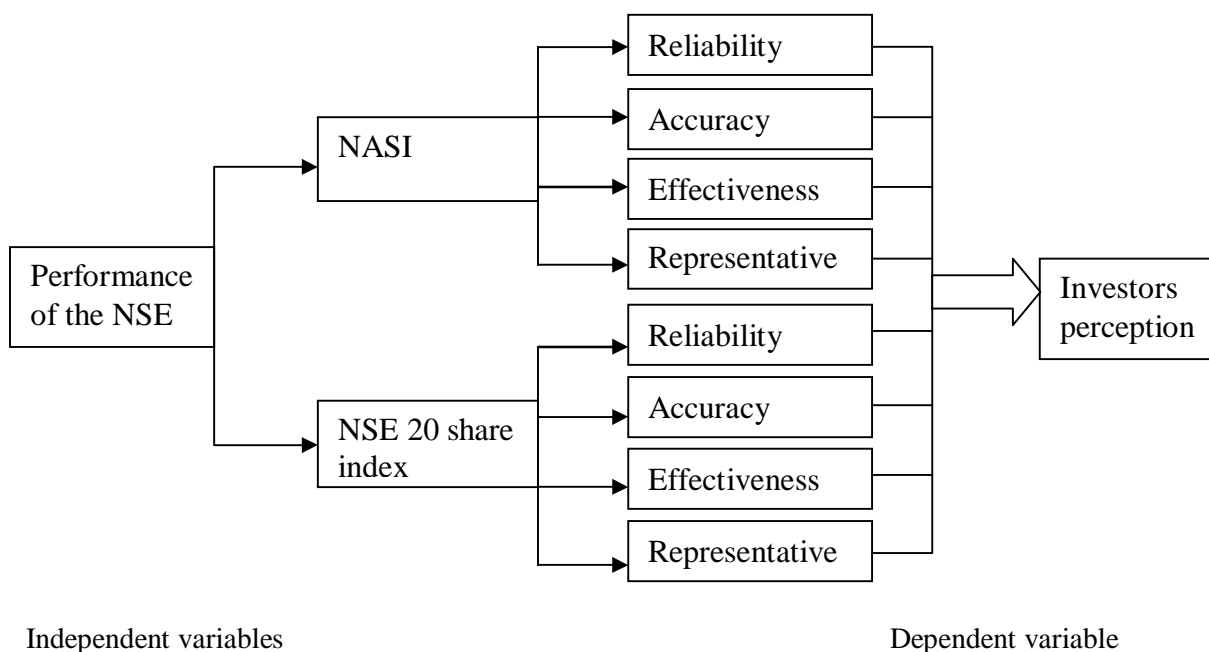
Study Methodology

Research design

This is empirical study and historical data recorded on a daily basis for the two years period. (1st January 2008-31st December 2009) was used for the purpose of the study. The data collected was used to test the hypothesis of no difference between the two indices at 5% level od significance using the Z statistic. The Z statistic was used since the movement in prices of stocks for the last two years is assumed to be normal with a knowm mean and standard deviation. The population of 52 companies is more than 30 hence making the z test appropriate. Correlation analysis was used to determine of correlation exist between the two indices.

Target population

The target population for this study was 52 companies listed and had their share trading in the NSE as at 31st December 2009 and the 20 analysts one from each of the 20 NSE registered member firms. Secondary data on the 52 companies' stocks performance was obtained from the NSE information centre. Primary data obtained using a questionnaire distributed 17 analysts drawn from 17 operational NSE member firms.

Sampling method and procedures

To obtain primary data, the researcher randomly sampled 17 market analysts with one analyst being drawn from each of the 17 NSE member firms operational in the period under study. The three firms: Nyaga stock Brokers, Discount Securities and Ngenye Kariuki and company were excluded since they were under suspension in the period covered by the study.

Data collection procedures and instruments

The researcher purchases raw data on the NASI and the NSE 20 share index movements from the NSE information centre. The researcher also purchased other documented data on the movement in other market indicators like market capitalization, share price and the volume of shares traded. The historical data was obtained from a credible source hence reliable.

The procedure to be adopted during primary data collection incorporated three stages: pilot study, pre-study sessions and finally administration of research instruments for data collection. The pilot study helped the researcher in measuring the validity and reliability of the designed collection instruments. After necessary adjustments had been made on the instruments, permission was be sought from the NSE member firms management to carry out the study followed by booking of appointments with the respondents. Both the self administered questionnaire and an interview schedule were used to obtain primary data. 17 questionnaires were distributed. However, 15 had been completed and returned at the end of the data collection period giving a response rate of 88.24% which is considered good enough for the purpose of this research.

Data analysis

The Z-test and T-test were used in analysis of the quantitative data. The Z test was used because the distribution of the test statistic under the null hypothesis can be approximated by a normal distribution with n>30 and α known. In this research, the researcher calculated a two tail Z-test using the statistical package Excel version 2007. The hypothesis being made in this research is that the NASI (μ_1) is not a significantly different performance measurement indicator as compared to the NSE 20 share index (μ_2). The alternative hypothesis is interested in finding out whether the NASI is significantly different index compared to the NSE 20 share index. Using

Alpha = 0.05
H_0: $\mu_1 = \mu_2$
H_1: $\mu_1 \neq \mu_2$

Decision criteria: If z>1.96 (NASI) or Z<-1.96 (NASI) then reject the null hypothesis and accept the alternative and conclude that the NASI is a better index as compared to the NSE 20 share index. If Z>-1.96 (NASI) 02 Z<1.96 (NASI) fail to reject the null hypothesis. Alternatively, the test statistic was converted to a conditional probability called a p-value. To convert a z_{stat} to a p-value, find the area under the curve beyond the z stat on a standard normal distribution. This was done using the z- table or the excel version 2007. Small p value is evidence against the null hypothesis because the observed data are unlikely when the null hypothesis is true.

Decision criteria:

The direct interpretation is that if the p-value is less than the required significance level, then we say the null hypothesis is rejected at the given level of significance.

When p value <0.5 →the observed difference is "significant" Hence reject the null hypothesis.

When p value≥ 0.5 →the observed difference is " not significant" hence fail to reject the null hypothesis.

When using the T-test, the decision criteria: If t_{calc} > 2.014 or t_{calc} <-2.014 then reject the null hypothesis and accept the alternative and conclude that the NASI is a better index as compared to the NSE 20 share index. If t_{calc} > -2.014 or t_{calc} <2 fail to reject the null hypothesis.

The test similarity between the two indices and the underlying market variables a correlation test was conducted between each of the two variables and the market capitalization and the volume of shares traded. The qualitative data on the four indicators: effectiveness, reliability, accuracy and representativeness were analyzed using descriptive statistics. These included the mean and percentages.

Findings and Discussion

The research was comparative analysis between the NASI and the NSE 20 share indices performance measurement inductors used at the NSE. The research main objective was to determine whether a significant difference existed between the two indices and if the introduction of the NASI as a complimentary index had solved the bias that had been associated with NSE 20 share index. Four objectives were set by the researcher. First, to find out there is a significant difference between the NASI and the NSE 20 share index as performance measurements indictors, secondly, find out whether correlation exists between the two indices and stock price and volume movement, thirdly, determine relationship between the Blue chip companies' stock performance and the overall stock market performance and fourth, find out which of the two indices is a better performance measurement indictor. Bother quantitative and qualitative data was collected by the researcher and the data collected was analyzed using the Z test, T test, correlation analysis and descriptive statistics.

On objective one, the researcher used the Z test and the findings indicated the Zstat of 1.148<the Zcrit of 1.96 hence the researcher failed to reject the null hypothesis and colcused that the data obtained did not provide sufficient evidence in order to reject the null hypothesis. Using the value P-value (0.11)>alpha (0.05). Since the P value >alpha, the researcher concluded that the observed difference is not significant and therefore failed to reject the null hypothesis. The two test significant difference between the two indices. However, 60% of the respondents are of the opinion that three is a significant difference between the NASI and the NSE 20 share index. They feel that the significant difference between the two indices is due to the nature of companies included in both indices and the weighing method used. 30% of the respondents feel that the two indices are not significantly different from each other. They argue that the fact the NSE 20 share is just but a sample of the NASO the two indices are not significantly different from each other. They further argue that since the two indices serve the same purpose and in most cases move in the same direction there is no difference between the two. 10% of the respondents were not certain of whether two indices were significantly different from each other.

On the second objective, the researcher tested the correlation between the two indices using the persons' moment correlation. The persons' correlation coefficient of 0.807 between the two indices was close to 1 and this suggests a significant or strong direct relationship between the movements of the two indices. The correlation coefficient® NASI and the underlying market capitalization of 0.96 was very close to 1 suggesting a strong direct relationship between the movement of the index with that of underlying market capitulation as compared to the NSE 20 share with a correlation coefficient(r) of 0.65 the results of the t test also indicate that there is no significant difference between the two indices and the underlying market capitalization.

On the third objective, both indices had a very weak correlation with underlying share price movements 0.24 and 0.02 for NASI and the NSE 20 share index respectively. 70% of the respondents support the fact there is direct relationship or correlation between the performance of the NASI and that of other market indicators like market capitulation, share price movement and volume of share trade. However, 205 of the respondents argue that no such correlation exists while 10% of the respondents were not certain on whether correlation existed or not. The results of the t test equally indicate a significant difference between the two indices and the stock price movements. 605 of the respondents felt that the Blue chip stocks included in the NSE 20 share index perform much better in the market when compared to the other stocks not included in the index. This is because these companies are relatively more stable and are able to attract long term investors due to the good divided payout.

20% of the respondents were of the opinion that the performances of the blue chip stocks are relatively illiquid due to their high value hence not affordable to investors. The blue chip stocks are not very attractive for speculation. 10% of the respondents argued that the stocks performed equally in the market while another 10% were not sure of which stocks performed better in the market since their performance in the market will keep changing depending on events in the respective companies. On the forth objective, the two indices performances were rated by the respondents in scale of 1-5 based on four indictors of performance. On reliability the NSE 20 share is viewed to be more reliable with a mean of 4.1 as compared to the NASI a mean of 3.8.However, the ANSI is viewed to be more accurate and more representative with a mean of 4.2 and 4.2 respectively as compared to the NSE 20 share index with a mean of 3.4 and 3.7 respectively. The teo indices are equally effective with a mean of 4.2. Overall, the NASI is viewed to perform better with a mean 4.1 as compared to the NSE 20 share index with men of 3.85 out of 5. The results of the t test indicated that the difference between the performances of the two indices was not significant. Hence the two indices perform equally in the market.

Conclusions

From the results of both the Z and the P value, the researcher did not find any significant difference in the daily trend or movement of both indices. This fact cap companies to the fact the two indices are drawn fro the same population and the 20 large cap companies that form the NSE 20 share are also included in the NASI hence leading to the lack of significant difference between the two indices. This conclusion is also supported by the high correlation coefficient of 0.807 between the two indices that very close two indices. Though 60% of the respondents are of the opinion that three is a difference between the two indices, the differences sighted are in the construction of the indices (weighing method used number and nature of constituent companies).

Though not direct, the NASI has higher correlation with the underlying market capitalization. These is can be demonstrated by the higher coefficient of correlation of 0.96 as compared to the NSE 20 share index with a correlation index with a correlation coefficient of 0.65. These is mainly attributed to the fact the NASI is a capitalization weighted index as compared to the NSE 20 share which is an equally weighted index. They two indices however had very weak correlation when compared with underlying share price movements. The researcher therefore concluded that though the NASI had solved the volume bias it had not done much towards soling the share price bias.

The blue chip stocks included in the NSE 20 share index perform batter profitability and stability as indicated by 60% of the respondents. However, their performance in the stock market is affected by the fact that heir stocks have a very high value and hence not affordable to retail investors who buy stocks mainly for speculative purpose. The performance of the two indices also differs on each category as rated by the respondents in a scale of 1-5 based on four indictors of performance. On reliability the NSE 20 share is viewed to be more reliable with a mean of 4.1 as compared to the NASI with a mean of 3.8. However, the NASI is viewed to be more accurate and more representative with a mean of 4.2 and 4.2 respectively as compared to the NSE 20 share index with a mean of 3.4 and 3.7 respectively. The two indices are equally effective with a mean of 4.2. Overall, the NASI is viewed to perform better with a mean of 4.1 as compared to the NSE 20 share index with a mean of 3.85 out of 5. This indicated that though the two indices are not significantly different from each other the NASI performs better when compared the NSE 20 share index.

Recommendations

Form the finding the research the two indices are not significantly different from each other and their performance also differs in each category rated. While the NSE 20 share index is more reliable than the NASI, the NASI is more accurate and more representative of the underlying market position. However, both indices are equally effective. The main weakness of both indices is their weak correlation with the underlying share price movements.

The researcher recommends that in the long run the NSE should consider constructing sector specific or segment specific indices that will measure the performance of each sector or segment of the market. A sector specific or segment index measures the performance of each sector or market segment independent of the other sectors or segments of the market. Currently, both indices draw constituent companies from all the four sectors in both the main investment Market Segment and the Alternative Investment Market Segment. Thus do not provide reliable information to investors interested in a specific sector or market segment sector or segment indices will be helpful to such investors interested in investing in a specific sector.

However, in the shorter run NSE should construct a new price weighted index that compliments the two indices. The new index should be constructed in such a way that more counter are included. In determining the counters to be included in the new index liquidity of the counters should be considered to avoid the inclusion of illiquid counters that may not have an impact in the movement of the index. This will ensure that the current price bias is eliminated.

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