Full Length Research Paper

Key changes in profile and characteristics of individual investors on the Johannesburg securities exchange (JSE) over the past two decades

Pradeep Brijlal

Department of Management, University of the Western Cape, Private Bag X 17, Belville, 7535. E-mail: pbrijlal@uwc.ac.za

Factors influencing investment behavior in South Africa are a matter of considerable interest among stockbrokers, business strategists, public officials and ordinary people. This paper attempts to characterize and profile the individual investor on the Johannesburg securities exchange (JSE) in order to establish if there have been changes in this grouping over the past two decades. In addition, the paper considers how these changes affect the investment community in current times. The paper draws on data collected in the 1980s as well as data collected by the author more recently. In the latter case, self administered questionnaires were electronically mailed to on-line investors. The responses were analyzed using univariate analysis and frequency tables and the data were compared with those of Firer, who conducted a similar study in the 1980s. Some of the key changes over the past two decades were investors who are now more concentrated in the middle age group, have higher qualifications, hold fewer securities in their portfolio, most invest for the long term, use the all share index to compare performance and feel that they could achieve a much higher return on their investment than previously. These findings provide some opportunities for purveyors of financial services to be selective in their approach to various groups of individual investors.

Key words: JSE, demographics, individual investor, risk.

INTRODUCTION

Recent years have witnessed enormous growth in trades and volume in South Africa's stock exchange (Market Profile, 2006). This could be due largely to the demutualization of Old Mutual and Sanlam shares in the late 1990s, whereby investors experienced the benefits of investing in shares. This has had both benefits and costs for development. For example, it has increased volatility in the economy as funds have flowed from abroad. According to Loubser (2007), CEO of the JSE Limited, "We see increasing appetite from local and international investors to invest in African issuers". Stock market development can play a highly constructive role in encouraging growth. Smith and Todaro (2006) write that the stock market in a developing nation, like South Africa, promotes the general availability of liquidity and risk diversification services, may serve to motivate entrepreneurs who may later go public, and provide incentives for managerial performance that make it easier for firms to raise capital in any form.

The JSE has entered into an important partnership with the FTSE, a global index provider to many international exchanges. One of the benefits of this partnership is the fact that FTSE and JSE calculate and market the FTSE / JSE Africa series to the global investment community. This allows the JSE to provide enhanced, expanded and internationally recognized index products for the domestic, African and international markets.

Clearly, the JSE, along with the other exchanges in Africa, has a fundamental role to play in the development of their individual countries as well as the entire continent. The JSE is the 17th largest exchange measured by market capitalization in the world. Due to the size and the sophistication of South Africa's financial markets, the JSE plays an increasingly leading role in Africa. The JSE has opened a world of possibility, providing opportunities to improve the quality of life of many Africans through increased capital flow in the region as a result of enhanced liquidity and investment in its products.

The development of internet providers provides a medium for corporate communication with shareholders and other stakeholders. Internet financial reporting has been a fast growing phenomenon in recent years, with wide-ranging implications for financial information providers, stockbrokers and investors, among others. Investors have been influenced by the rise in internet use and now have more updated information available on various companies and recommendations from stockbrokers and directors of companies from various websites, some of the popular sites being sharenet.co.za and moneymax.co.za and stock broker sites, for registered investors.

"Much of contemporary capital market theory assumes that the participants in the market place are homogenous in their search for information, in their digestion of information, and in their consequent securities trading patterns" (Lease et al., 1976). It may also be assumed, however, that the search for information may have shifted since the 1970s, as individual investors may currently be using a range of types of investment models and information from various investment sources that provide different information, which may be used by investors in making investment decisions. Two studies that have attempted to understand the individual investor are those of Lease et al. (1974) and Firer (1988).

In 1974, Lease et al. undertook a survey of individual investors on the New York Stock Exchange. Among their results were the following: one third of their sample was over the age of 65, half were professionals or employed in managerial positions, and half had completed some kind of tertiary education. In addition, the researchers found that investors used fundamental analysis, invested for the long term and were reasonably well diversified (holding 10 to 15 different securities). A quarter of investtors relied on their brokers or professional investment advisors in making their investment choices.

In the 1980s, Firer undertook a survey of individual investors on the JSE in South Africa. Among the most significant findings were most investors who were retired or close to retirement, 84% were male investors, 74% were married, 49% of the investors resided in Gauteng, 51% had completed tertiary education. In addition, Firer found that 59% regarded dividend income as more important than short term capital gains, 51% used their own standard to compare performance, the average return from share investment was 13%, and that 60% held on average ten different securities.

This research paper provides additional and up to date information on the current profile and characteristics of the individual investors on the JSE and highlights key changes in this grouping over the past two decades since Firer's study. Understanding these changes may be beneficial to national and international stockbrokers and other interested stakeholders, as they attempt to better understand the current individual investor.

This paper focuses on the following: 1) Individual investors' demographics, investment goals and attitudes. 2) A comparison of current investors with previous investors. 3) The decision making processes used by such investor 4) The key changes in the profile and characteristics of individual investors over the past two decades.

This paper also outlines the methodology used in collecting and analyzing data, notes the findings and discusses the key changes and their implications.

METHODOLOGY

The results of the recent descriptive study were based on electronic questionnaires sent to registered investors who had access to the website of one of the major stock broking firms. Questionnaires were electronically mailed to about 2500 of the firm's private clients.

It was assumed that, since they have one of the largest client bases in South Africa, a survey sample would be representative of the South African individual investor. One of the limitations of the study was that investors who did not have access to computers and were not registered on the broker's website were not part of the sample. Firer's previous study may have allowed for a greater variety of participants through the use of posted questionnaires. The survey was restricted to individual investors and no criteria related to trading volume or portfolio sizes were imposed for eligibility.

The questionnaire was divided into five categories: Demographics, Investment, goals, Investor decision methods, Portfolio composition and Investor attitudes. The questionnaire, which was similar to that used by Firer, contained 30 closed ended questions, using a Likert scale; which is an approach to attitude measurement. The responses are presented using the verbal and frequency tables. The questionnaire was estimated to take fifteen minutes to answer. The advantages of the self-completion questionnaire are cheaper and quicker to administer than face-to-face interviews, provide for little interviewer variability and are convenient for respondents.

A convenience sample of five investors was used as a pilot in order to elicit critical comments on the questionnaire, before it was finalized. These were investors who were trading in securities. The final questionnaire included a covering letter from the broker explaining what was being asked of the clients and requesting their cooperation. An assurance of complete anonymity was given to the respondents.

The data was captured electronically over a three week period. Three hundred and forty three investors responded; this represents a 16% response rate. This low response rate may indicate that not all online investors were comfortable with answering surveys electronically.

RESULTS AND DISCUSSION

The results of the study are presented, including demographics; investment goals; investment decisions; investment strategies and investor attitudes. The results are compared with Firer's results and the key changes noted. In terms of gender, marital status and place of residence there were few changes. In the recent study, 89% of the respondents were male compared with 84% in the 1980s. 71% were married compared with 74% in 1980s, and most resided in Gauteng (44 %) compared with 49% in 1980s.

Table 1. Demographic characteristics.

		1980s	current
Age	Under 25	2.%	6%
	26 -35	13.%	18%
	36 - 45	18%	28%
	46 - 55	19.%	23%
	56 - 65	20%	16%
	Over 65	30%	9%
Gender	Male	84%	89%
	Female	16%	11%
Marital status	single	26%	21%
	married	74%	79%
Education	Post Graduate degree	27%	41%
	Bachelor's degree	23%	23%
	Post grade 12 diploma	20%	20%
	Grade 12	22%	12%
	Below grade 12	8%	4%
Occupation	Professional & technical	32%	37%
	Managers	10%	26%
	Self employed	11%	18%
	Retired	26%	9%
	other	21%	10%

Table 2. Importance of investing in shares

Short term capital gain	1980s	current
Short term capital gain	41 %	44 %
Medium term capital gain	71 %	79 %
Long term capital gain	81 %	92 %
Dividend income	61 %	58 %

Demographics

There were some differences in terms of qualifications held and occupation. 64% (50% in 1980s) of the respondents had a bachelor's degree or post graduate qualification and 63% (42% in 1980s) were in senior positions in terms of occupation (Table 1).

Another difference related to age. The respondents in the recent study were predominantly in the middle to near retirement age group (36 – 55), compared with the study conducted in the 1980s where most investors were over the age of 56. Although difficult to compare the value of income received at the time the two studies were undertaken, it would seem that the middle age group, (36 - 45), earns a higher income compared with the 56 - 65 age group. This means, too, that they have additional funds to invest.

The findings recorded above provide some evidence to suggest that the middle age group is more predominant

with respect to investing on the JSE when compared to the 1980s. This change in trend could be due to more middle aged investors having higher qualifications and earning above average incomes, when compared to investors included in previous studies.

The decrease in the older investor group may be due to the fact that the investors' offspring are at tertiary institutions, mortgage bonds are almost paid off and saving for retirement looms large in the mind of the investors in this age group. At retirement age (65 and over), investors are thinking about converting their investments into income to take them comfortably through their retirement years. The trend towards lower investor age is borne out in a study by Anderson who writes that an average individual investor, in the USA, in individual stocks and equity unit trusts is 47 years old and has long term financial goals (Anderson, 1999). My findings showed similar results to Andersons, but are different from the results of Firer, where most of the investors were close to retirement. It however supports Firer in terms of investor's preference for long term gains.

To sum up, the key differences noted in terms of demographics were current investors who are younger, earn a higher income than the older investors in the 1980's, have higher qualifications and enjoy reputable positions in their careers.

Investment Goals

Investors will normally invest over different periods of time, namely short term, medium or long term, for various reasons. Risk and return are some of the main considerations when making investment decisions. This is also in line with the research done by Ambachtsheer (2005) where he asserts that "Most investment contexts require the consideration of multiple horizons rather than a single horizon. In some cases short horizon considerations dominate; in others, the primary focus should be on assessing long horizon outcomes. For individuals, investment-related rewards and risk should be integrated with other considerations, such as human capital-related rewards and risks, longevity/mortality and education."

In the recent study investors were asked to define their objectives in owning shares. It was noted that most investors felt that long term capital gains to be the most important objective, with 92% of respondents claiming high importance for it, compared with 81% in the 1980s (Table 2). The results suggest that a higher percentage of investors are placing importance on capital gains. This could be attributed to the fact that the middle aged investors are taking the long term view, as they have a longer time to retirement.

The question relating to the benchmark used to compare performance also showed a shift from the 1980s. From Table 3 it can be seen that currently 42% of the respondents used the JSE All Share Index (ALSI), compared to 16% in the 1980s. In the 1980s 53% of the res-

Table 3. Standards used to determine performance.

	1980s	current
Interest rates	14%	15%
JSE index	16%	42%
Own standard	53%	25%
Unit trust performance	2%	5%
none	8%	5%
Friend's returns	1%	1%
Other	6%	6%

Table 4. Rate of expected return per annum

	1980s	current
0 – 10%	41%	10%
11 – 15%	24%	38%
16 – 20%	20%	30%
21 – 25%	9%	14%
Above 25%	6%	10%

respondents compared to the current 25% used their own benchmark when comparing performance. This may indicate that the current investors may be more sophisticated and that the JSE is better marketing its index as a standard of comparison (Table 3) than was the case in the 1980's.

In the recent survey, the average annual return which the investors felt could be obtained from investing in shares was 17%. This was higher compared to the 1980s where the average expected return was 13% (Table 4). This shift could be due to investors being more aggressive in their investments, and by taking higher investment risks compared to previous investors. In investments it is believed the higher the risk, the higher is the expected return (Gitman, 2006). The implication is that current investors are prepared to take on additional financial risk with the expectation of higher returns. Once again, this may be related to the younger age of investors in the recent study.

The current investors seem to be investing for the longer term, comparing their performance against the JSE index and expecting a higher return on their investment.

Investment decisions

It is assumed that investors make informed decisions when investing in the various investment products. Some of the sources of information for investment decisions are recommendations from stockbrokers, newsletters, financial magazines and use of fundamental (financial) and technical analyses.

The results of the recent survey showed that about 70% of the respondents used the advice of a stockbroker

at some stage during the investment period when making investment decisions. It has been noted that there has been an increase in receiving such advice since the 1970s and 1980s where 25% and 50% used stockbrokers' advice, respectively. According to Bernartzi and Thaler (2002), it was found that investors do not actually gain much utility by being able to choose their own portfolio. Most of the investors in their study found the portfolio of the median investor to be more attractive than the one they had chosen for themselves.

Studies by De Long (1989) contribute to the literature on investors' use of analyst recommendations in several ways. Firstly, it shows that investors acting in the absence of analyst recommendations were more likely to sell winning stocks too early and hold losing stocks for too long, known as the disposition error (Krishnan and Booker, 2002). The "noise traders" with common judgmental biases can affect stock prices. Secondly, their study finds that the mere presence of analyst recommendations reduces the level of the disposition error for winning stocks. Thus, even the use of a weak analyst recommendation may reduce the irrational behavior of selling winning stocks too early. Thirdly, they show that investors pay attention to and appear persuaded by supporting arguments given by the analyst. While the recent research did not test for disposition error, it may be assumed to support the views of De Long, as 70% used advice of a stockbroker and 90% found their recommendations useful.

When making investment decisions, 62% of the investors surveyed recently used fundamental (financial) analysis, compared to 70% in the 1980s. Over 60% used a combination of fundamental and technical analysis for investment decision making. The decrease in the use of fundamental analyses could be attributed to the use of modern technology in using more technical analyses where trends are easier to establish.

Investors these days seem to be making more use of advice from stockbrokers and investment letters or articles and use more technical analyses when making investment decisions.

Investment strategies

In the field of investment one can reduce risk by diversifying. An increase in the number of different kinds of shares in a portfolio leads to a decrease in risk. Independent studies have proven that asset allocation is the single most important factor in determining portfolio performance. If the portfolio is properly diversified, it can lead to the goals and objectives of investing. While it should deliver solid, perhaps even substantial, long term retirement savings, it is unlikely to deliver wealth quickly.

The investors recently surveyed were asked to indicate the number of different types of ordinary shares they had in their portfolios. 57% of the respondents had only invested in ordinary shares and about 60% of them had an average of six different types of ordinary shares in

Table 5. Mean scores of investor attitudes (1 strongly agree-5 strongly disagree).

Statement	1980s	current
I enjoy investing on the JSE	1.8	4.0
Own management of a portfolio fares better than unit trust performance	2.5	3.4
I try to buy on the way up and sell on the way down.	2.4	3.3
Most individual investors are net losers.	3.3	1.9
Shares that pay high dividends are more valuable than shares that pay low dividends	3.3	2.5
Growth oriented companies should not pay dividends	3.7	2.2
I buy shares on future expectations rather than past performance	2.1	3.6
By adding shares to my portfolio I reduce risk without affecting my return.	2.9	2.8
I prefer to take substantial financial risk in order to achieve substantial financial gains	2.8	2.5
The rewards an investor can earn from shares are directly related to the risks taken	2.5	3.9

their portfolios. In the 1980s, respondents held an average of ten different types of shares. It would seem, therefore, that investors are holding fewer different securities in their portfolios. This would imply that investors, when compared to the 1980s, may have less diversified portfolios, thereby increasing the chances of risk and higher expected return or loss.

According to Marshall and Friend (1978), the three most commonly used measures of risk are earnings, volatility, price volatility and published beta coefficients. Risk can mean different things depending on circumstances. In the case of investing, it is the extent to which a particular investment opens up the possibility of an investor losing part, and possibly all of his or her money. The greater this possibility, the higher the level of risk associated with the investment. Risk taking is important for two main reasons. Firstly, higher risk investments offer potentially higher returns. This is done to compensate for risk and to attract investors. Secondly, risk takers are prepared to borrow to invest. In doing so, they expo-se themselves to the risk of bigger losses, but, crucially, it also creates a chance of making bigger profits (Freeman, 2004).In similar ways, this research reveals that most individual investors these days are less risk averse than they were two decades back.

Investor attitudes

In order to further probe the individual investor's perception towards investments, the respondents were requested to give their views on their attitudes towards investing, ranging from strongly agree to strongly disagree. The responses were captured using a five point scale. (1 for strongly agree to 5, strongly disagree). The mean responses to the statements are compared with some of the statements used in the 1980s, are presented in Table 5.

The results indicate that there has been an increase in the number of investors who enjoy investing on the JSE,

compared to the 1980s. Respondents in the earlier study believed that those that managed their own portfolio were less likely to outperform unit trust. Interestingly, this view seems to have changed as just over 60% of respondents in the recent survey believe that they could outperform unit trusts, in general. This shift can be attributed to the fact that current investors are prepared to take more risks and hence achieve a higher return, if they manage their own portfolios.

There also seems to be a shift in opinion as to whether growth companies should pay dividends. About half the respondents in the 1980's study felt that shares that pay a high dividend are more valuable than shares that pay a low dividend. Current investors, however, felt that growth companies should not pay dividends. This could be due to the fact that investors are taking the long term view, given that most of them are in the middle age category, and hence are not so interested in receiving dividends from these growth companies.

The results of the surveys conducted indicate that more respondents transact in shares based on future expectations rather than past performance. Over half of the respondents believe that adding shares to their portfolios will decrease risk without affecting returns. Further analysis which included willingness to take risk in order to achieve a higher return revealed that there is a trend to become more risk averse with age. About 74% below the age of 25 were willing to take risks to achieve higher returns compared with the age group 56 and above where about 30% were willing to take higher risks to achieve higher returns. This indicates that individual's willingness to take risks decreases with age. These findings support those of Riley and Chow (1992) who wrote that increasing average age is associated with increasing relative risk aversion. Their findings also suggest that society's relative risk aversion should increase as a country's population ages. As investors get closer to retirement, they become more risk averse and demand a higher premium for investing in the equity market.

Conclusion

This paper has attempted to characterize and profile the individual investor on the JSE and to determine the key changes in this grouping since the 1980s. These days' individual investors are often younger, closer to middle age as compared to near retirement in previous studies. In addition, more individual investors have post graduate qualifications. This would imply that stockbrokers and investment institutions should concentrate their marketing efforts in the middle age (36 - 55) group and amongst university graduates. It is likely that such investors will prefer long term capital gains and may be willing to take greater financial risks, as they may still be several years away from retirement age. A comparison of the results of the studies indicate that the advice of stockbrokers is sought more than previously which implies that there should be more interaction between stockbrokers and investors now than previously. Current investors may have more financial resources and enjoy investing on the JSE. The findings here provide some insight into the likely preferences of individual investors for particular financial instruments and investment approaches. This suggests a powerful opportunity for purveyors of financial services to be selective and persuasive in their appeals to various groups of individual investors. The research presented here can be viewed as a step forward in profiling the individual investor on the JSE. Future research should endeavor to include investors who have no access to stock broking websites and make comparisons to determine to what extent they differ from the above characteristics.

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