Behavioral Anomalies of IPO Investment: A Survey of Siaya Institute of Technology Teachers (Kenya)

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ABSTRACT

Societies are organized around the assumption that human beings are perfectly rational in their decision making processes. The context in which people make decisions has a significant influence just as the choice itself. This research aimed at identifying irrational factors that influence initial public offering (IPO) investment decisions by teachers of Siaya Institute of Technology. To achieve this objective, the research adopted a descriptive cross-sectional survey design collecting data from eighty participants through drop and pick later questionnaires. Results reveal that for teachers of Siaya Institute of Technology, trading within the capital markets is hardly based on fundamental analysis. They hold onto losing stock for fear of receiving negative returns, have little information on market trends, are risk averse and believe in holding superior portfolios. This is influenced by optimism/pessimism bias and the fact that they are privately informed by their workmates and social groups. Media news releases, regular broker recommendation, family members’ purchase approval and social group popular opinion all play a role in asset selection process and market timing.
1. Introduction

1.1 Background of Study

Financial markets are meeting points for the sale and purchase of financial assets which represent legal claims to some future benefit. These claims are dominated by two asset classes; bonds and equity. A third class broadly referred to as alternatives comprises real estates, hedge funds, private equity, currencies, commodities, natural resources, infrastructure and intangibles like intellectual property. Focardi (2010) suggests that investment returns are determined by risk-return trade-offs which depend to a large extent on asset allocation. Investors both retail and institutional are coming to the realization that asset allocation rather than stock picking drives returns.

Retail investors are directly involved in daily transaction of securities on an exchange and are therefore at the whims of market swings whereas institutional investors transact large blocks of trade through portfolio managers and can opt to be contrarian in their investment strategy. They are therefore not involved in the daily trading of securities on an organized exchange.

By purchasing popular stocks and disposing off unpopular stocks without conducting fundamental analysis, irrational traders perpetuate asset bubbles which further distort security prices. Irrational traders spread noise in the financial markets by embracing herd behavior in their trading activities. The contribution of irrationality to security mis-pricing and investor herd behavior forms the basis of this study.

This paper reviews irrational factors influencing investment decisions of teachers from Siaya Institute of Technology in Kenya. The remainder of the paper is organized as follows. Section one reviews background of the study in terms of irrational biases and their implications on decision making, IPO investment and a look at teachers of Siaya Institute of Technology. Section two reviews literature both theoretical and empirical while section three reviews research methodology. Section four presents research findings while the final section summarizes the study by drawing conclusions.
1.2 Irrational Factors

Markets are not perfectible, nor are people. But modern societies are organized around the assumption that they are. They can think rationally but are not perfectly rational. Institutions are calibrated in the belief that people fully calculate the costs and benefits of every decision they make. This not only presumes perfect rationality but also perfect self-control and perfect self-interest. Fuller (2009) contradicts this view by proposing that people are not perfectly rational. They regret choices immediately after making them; they are motivated by factors other than price: social norms, habits, morality, formal and informal authority, non-monetary incentives, community expectations and the context in which choices are presented.

Decision making involves multiple brain areas, including rational and irrational processes. In gambling, a near miss stimulates win-related circuitry that increases the motivation to gamble again. Participants display contrast effect by perceiving winning differently compared to the recent near miss situation. But the effect is less pronounced in people with higher self-control (Clark et al, 2009). Predictable irrationality involves multiple biases that play a pervasive role in influencing poor outcomes.

Takahashi (2005) observes that, people tend to excessively discount the future when evaluating the long-term. Stango and Zinman (2006) concur that Excessive discounting of the future leads to unmanageable consumer debt through excessive temporal discounting resulting from excessively stronger preferences for immediate gains relative to future gains.

Del Missier et al. (2007) and Ever et al. (2008) contend that investors tend to think over-optimistically; to be loss averse; and to give things importance simply because they are attention grabbing. Poor decision making affects outcomes across multiple issues. Aversion to extremes occurs when people avoid extreme situations by preferring the middle ground choice. Bandwagoning is a tendency for people to do or believe things simply because their colleagues or friends or community believes them to be so. Choice supportive bias occurs when a person considers his choices to be superior than other people’s choices leading to assumption of perfection. Erev et al. (2008) observe that investors prone to post purchase rationalization consider their purchases as good buys. They are also likely to suffer from conservatism bias when they ignore the consequences of their bad decisions irrespective of new evidence supporting such implications. This bias is closely related to loss aversion where people fear losses much more than they value gains of equal magnitude in monetary terms.
Planning fallacy occurs due to under estimation of the time it takes to complete a financial task like enquiry to actual inclusion of an asset class onto a portfolio. Takahashi (2008) suggests that this irrationality is closely linked to framing effects where a securities broker is assumed to be all knowing and could actually beat the market based on the reputation of an earlier successful transaction or mode of dressing or brand of vehicle driven. Not invented here bias on the other hand is a resentment accorded new ideas like a new securities broker, a new floating organization or new investment bank entering the market is likely to be shunned by most investors. Wishful thinking shapes imagination by selectively hoping for pleasant outcomes instead of relying on evidence to inform decision making.

1.3 IPO Investment

The complexity of analyzing market perception regarding a company forces potential issuers of securities to enlist services of investment bank(s) or a consortium of the same in gauging public demand for their securities. Palaeri (2007) concurs that these banks have a wealth of data and experience on the economic status of a market and have both the synergy and economies of scale to conduct actual placement of securities with the public compared to the issuer. Modigliani (2007) clarifies that IPOs are common stock offerings by companies that had not previously traded their common stock to the public. The financial risk of such a move is very high requiring careful negotiation between the issuer and investment bank(s) for risk diversification purposes. This ensures the investor base is expanded by the lead underwriter putting together a selling group who buys the securities at a concession price. At times the risk of capital loss is so great that an investment bank avoids firm commitment for best-efforts-underwriting. Potential investors need to be very cautious with this kind of underwriting.

The lead underwriter comes up with a preliminary prospectus informative enough in terms of fundamental analysis to be presented to both capital markets authority and the Nairobi Securities exchange for admission purposes. That prospectus is then piloted to institutional investors for pricing purposes to determine offer price band within which the offer price is set. This is followed by book-building process for price review. It is the duty of securities exchange to qualify a security issue before the final price is determined which happens on the last trading day before the actual floatation of shares takes place (Kipng’etich et al, 2011).
1.4 Effect of Irrational Factors on Investments

In order to invest wisely, people must overcome various psychological biases that could cloud rational thinking. Promin et al. (2006) concedes that these biases affect investors unconsciously on their investment decisions.

When investment decisions are purely motivated by irrationality then security prices fail to reflect fundamental factors like cash flows and instead reflect noise within the financial markets. Irrational traders stand to lose in terms of market returns as their decisions are not supported by information about financial prospects of particular organizations but are purely consequential on noise. Human beings are social animals and seek acceptance in whatever they do. Buying when everybody is buying seems to be socially acceptable despite the fact that such a move puts pressure on security prices that could overshadow fundamental value of the securities in context. Psychological factors come into play in distorting security prices. One such factor is over-confidence by which most investors think they are above average with a strong self-esteem. Representative heuristic is a tendency to see patterns in data and expect them to repeat. Framing on its part occurs when an investor lets his judgment be affected by the way a choice is presented. Attention anomalies are mistakes people make because of inattention.

Fama (1965) and Friedman (1953) suggest that financial markets are intrinsically efficient. In the current context it would mean that all material information is at the disposal of potential investors and that all decisions are made subject to factoring in of material information in a rational way to gain maximum returns from a portfolio. This proposition contradicts general market sentiments where many investors continuously behave irrationally by executing trading orders based on noise.

Promin et al. (2007) observe that overconfident traders tend to be unrealistically optimistic about their future financial wealth thereby taking on riskier investments than necessary for their risk profile. The future therefore comes to them abruptly without good preparation for retirement. Another blind spot bias affecting irrational traders is the future self vs the present self. This bias provides investors with the means to assume that their financial prospects will brighten with the passage of time such that they see themselves financially stable in future despite their poor standing currently. Closely linked to this bias is fast thinking as another
psychological bias which makes potential investors over indulge in financial investment within a short time without fundamental information on those investment options.

1.5 Teachers at Siaya Institute of Technology

Teachers in this institution are organized in an umbrella investment club which is mutually owned. Members are drawn from welfare association which is open to all the teaching force in the institute. In as much as the investment club strives to implement various investment options, members are keen to diversify their portfolio to eradicate idiosyncratic risk. The financial market has not been spared as an investment destination by the investment club and the current teaching force has been at one time or another participated in the primary market of the recent initial Public Offering (IPOs) releases or purchased IPO related shares in the secondary markets. This fact captured the attention of the researcher who is also a teaching staff member in the institute to investigate such active participation in financial markets and whether such trades are within rational investment fundamentals or are purely driven by investor irrationality.

1.6 Research Problem

There are predictable ways that people make bad decisions even though they can learn to understand these biases and mitigate them. People can learn to unite their preferences across time. Yet bias is resilient and tends to appear across populations. Fuller (2009) concurs that certain irrationalities at a population level tend to be widespread. These irrationalities are psychological biases that cloud decision making leading to wrong decisions. Initial public offering investment is dependent on amount of information carried across through company prospectus. Media news bulletins, political talk, colleagues, friends, and familiarity with an entity do lead to herd behavior where unsuspecting investors jump onto an existing bandwagon of investors just to have safety in numbers. They end up investing in an entity just because of a need for social acceptance and not out of rational considerations.

A typical Kenyan investor feels safe within a group. They like being appreciated post purchase and suffer from post purchase rationalism bias. They rarely conduct fundamental analysis on investment prospects and depend on free rider benefits. They are short term investors who like instant gratification through immediate sale of ‘hot stocks’. They suffer from several irrational factors like loss aversion, irrational escalation, and neglect of probability, selective perception and wishful thinking. Teachers of Siaya Institute of
Technology are no exception to these biases and this research therefore strives to survey this group with the intention of discovering irrational biases that influence their investment decisions.

1.7 Research Question

This study was guided by the question as to what factors influenced the decision of Siaya Institute of Technology teachers to participate in recent IPOs in Kenya.

1.8 Research Objective

a) To identify irrational factors that influence Initial Public Offering (IPOs) investment decisions by teachers of Siaya Institute of Technology

1.9 Value of Study

a) Knowledge

By the end of the study, this research will add to available body of literature on behavioral finance which will assist policy makers in organizations and government explore how to design decision models and contexts in which people make decisions and the principles that guide the use of these models.

b) Practice

Results from this study add to available literature on behavioral finance thereby equipping Capital Markets Authority with the ability to audit information content of security dealers and brokers as a protective measure against an unsuspecting public. Financial analysts have to provide evidence of market research to qualify for certification purposes and continue to practice their trade.

c) At the same time the Nairobi securities exchange benefits through monitoring of trading volumes of various stock brokers and the category of their clientele with a view to checking misallocation of client funds to irrelevant projects not related to security trading in breach of their custodial role within the capital markets.
2. Literature Review

2.1 Introduction

This section reviews earlier studies conducted on financial market irrationality and existing gaps that the current research attempts to bridge.

2.2 Theoretical Review

This study is premised on the following three theories; efficient market theory, modern portfolio theory and prospect theory. A discussion of the theories and their impacts on the current study forms the basis of this section.

2.2.1 Efficient markets Hypothesis (EMH)

This theory holds that the market appears to adjust so quickly to information about individual stocks and the economy as a whole that no techniques of selecting a portfolio neither technical nor fundamental analysis can consistently outperform a strategy of simply buying and holding a diversified group of securities (Fama, 1965). This theory is based on the assumption that market participants are purely rational and equal yet the risk profile of an investor is usually asymmetrical with losses being weighed heavily than gains. This study looks at teachers’ trading history and whether market memory informs future trading patterns.

2.2.2 Modern Portfolio Theory

This theory is based on the random walk hypothesis that movement of asset prices follows an unpredictable path as a long run nominal growth of corporate earnings per share. But fluctuations around the path are random. Whereas MPT would suggest that all investors are rational in their investment decisions including teachers of Siaya Institute of Technology, CAPM would divide investors into rational and irrational ones. Short term investors in IPOs are motivated by capital gains unlike long term investors who are driven by dividends, loan collateral or board membership. This study dwells on the influence of irrational factors on investment decisions of these teachers.
2.2.3 Prospect Theory

Prospect theory is an experimental based descriptive model of decision making under uncertainty put forward by Kahneman and Tversky (1979). The standard features of this theory are that market agents derive value from gains and losses in wealth from a reference point rather than from absolute levels as in traditional utility theory. The model was originally developed to help explaining the numerous violations of the expected utility paradigm advanced by Von Neumann and Morgenstern (1944). Investors care about changes in financial wealth (instead of levels) and are loss averse over these changes. Those investors who purchased KENGEN’s IPO shares and were rewarded by social acceptance within their networks were more likely to purchase Safaricom shares once the IPO was floated than those whose earlier purchases were disapproved socially.

2.3 Empirical Review

Kipng’etich et al. (2011) investigate IPO pricing in Kenya by exploring the extent to which investor sentiments, post IPO ownership retention, firm size, board prestige and age of firm affect IPO pricing. The current study simply investigates teachers’ investment decision making as to the addition of security onto a portfolio or sale of the same securities from a portfolio. Gervais et al. (2007) investigate institutional investors whereby overconfident managers have a direct link on firm value and corporate policies. Teachers in the current study are involved in active investment contrary to Gervais research which deals with passive investors. Chemmanur (2011) investigates the best way available for a firm to raise external financing while at the same time providing an exit strategy for entrepreneurs and venture capitalists. He considers IPOs and Acquisition. Hoffmann et al. (2010) analyze how systematic differences in investors’ investment objectives and strategies affect the portfolios they select and the returns they earn. With 65,325 individual accounts from 2000 to 2006, results indicate that fundamental analysis produce higher aspirations, more risk taking and overconfidence than technical analysis.

Chandra (2008) examines the relationship between investors’ attitude towards risk and behavioral decision making. Results reveal that investment decision making is a factor of greed, fear, cognitive dissonance, heuristics, mental accounting and anchoring.

Chira et al. (2008) simulate cognitive biases, heuristics and framing effects among business students. Using a sample of 68 students from Jacksonville University USA, results showed
that students are less disposed to being over confident and optimistic in objective assessment. Grou and Tobak (2008) simulate illusion of control and ambiguity aversion among 196 students. Results showed that students had the illusion of control over random events than they actually had. They also had higher invested proportions in known distributions even though many were not willing to pay a price to reduce the ambiguity. Waweru et al. (2008) investigate the role of behavioral finance and investor psychology in investment decision making. Results reveal that representativeness, overconfidence, anchoring, gambler’s fallacy, availability, loss aversion, mental accounting and regret aversion affected the decisions of institutional investors at the Nairobi Securities Exchange.

3. Research Methodology

3.1 Introduction

This section concentrated on actual data collection and spelt out the mode of collecting primary data by describing research design, population of study, data collection method, validity of collection instruments and data analysis

3.2 Research Design

This research adopted a descriptive cross-sectional survey design in conformity with Muganda (2010), who suggests that survey design allows a researcher to obtain data from a large group of people in a standardized and systematic way which then allows for generalization to a larger group that was targeted. The design is conducive to this study as it helps ascertain irrationality among teachers of Siaya Institute of Technology and how the irrationality is distributed in this group in relation to investment in financial assets at a particular period in time in a cost effective manner, thus its cross-sectional aspect. As the study captures the whole population of teaching force of Siaya Institute of Technology, the design is therefore a census survey.

3.3 Population of Study

A census survey of the whole eighty teaching population was subjected to this research. This was informed by its rich background in terms of expertise, age and geographical diversity. The fact that the subjects have been at one time or another participated in recent IPOs from 2002 to 2010 added to its importance as a subject of study. Time period specified coincides
with the third political regime in Kenya which ushered in a proliferation on commercial banking uptake by the previously unbanked in society and penetration of telecommunication services especially mobile telephony services. The period captures socio-economic and political renaissance in Kenya with bullish market connotations.

3.4 Data Collection

Data was collected through drop and pick later questionnaires. This drop and pick later format was at the convenience of the respondents. The questionnaire had three parts. Section A focused on respondents’ demographics; Section B gathered data on irrational influences. Section C gathered data on IPO investment in the capital markets.

3.5 Data Analysis

When all the questionnaires were received back, they were edited for completeness and consistency. Blank responses were assigned a mean of the responses of all those who have responded to that particular item. Coding was effected through a coding sheet to transcribe data from the questionnaire for entry into a computer as a data file. Descriptive statistics has been used to simplify large discreet events through calculation of mean, range, standard deviation and variance. Tables and bar charts have been used to display frequencies. Data was divided into rational and irrational trading behaviour and relevant trading volumes transacted. The irrational components have been accorded specific attention to determine frequency of occurrence in comparison with volume transacted.

4. Research Findings

4.1 Data Analysis

Key findings of this research are presented in this section.

4.1.1 Participant demographics

<table>
<thead>
<tr>
<th>Age bracket in years</th>
<th>Percentage</th>
<th>Financial Literacy</th>
<th>Percentage</th>
<th>Marital Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 40</td>
<td>25 %</td>
<td>Low</td>
<td>15%</td>
<td>Single</td>
<td>5%</td>
</tr>
<tr>
<td>40-50</td>
<td>70%</td>
<td>Medium</td>
<td>80%</td>
<td>Young brood</td>
<td>25%</td>
</tr>
<tr>
<td>Above 50</td>
<td>5%</td>
<td>High</td>
<td>5%</td>
<td>Grown up brood</td>
<td>70%</td>
</tr>
</tbody>
</table>
Table 4.1 represents respondents’ demographics and corresponding percentages sourced from the questionnaire. When asked about their age bracket, 25 percent of participants recorded being below 40 years of age while a majority at 70 percent was within 40-50 age bracket. Only 5 percent of participants recorded being over 50 years of age. This factor directly affects risk profile for those below 40 years of age are prone to being risk takers with an aggressive risk profile as compared to those above 40 years who prefer a defensive profile to aggressive profile. When asked about their marital status, 5 percent of participants admitted to being single while 25 percent admitted to being married and parenting young children. 70 percent of participants were married with grown up children thereby prone to a defensive risk profile borne out of dependency from the family. In response to their financial literacy, 15 percent of participants admitted to being of low financial literacy whereas 80 percent admitted to being of medium financial literacy. Only 5 percent of participants recorded being well versed in financial matters. This explains the low levels of fundamental analysis on investment prospects and the impact of social group influence on trading behavior of these participants.

4.1.2 Income

![Figure 4.1](image-url)

**Figure 4.1**
Monthly Income
Figure 4.1 represents respondents’ monthly income range in Kenya shillings sourced from the questionnaire. When asked about their monthly income levels, 15 percent of participants recorded earning below Ksh 40,000 and another 15 percent recorded being within Ksh 40,000-50,000 income range. A majority of participants (65 percent) recorded being within Ksh 50,000-60,000 income range while only 5 percent of participants recorded earning above Ksh 60,000. This shows that for a majority of participants, personal loans and not savings provide seed capital for investment purposes.

4.1.3 Investment Variables

![Graph showing investment variables](image)

Figure 4.2
Investment Variables

Figure 4.2 depicts investment variables determining trading behavior of participants within Nairobi Securities Exchange. When asked about the extent of information content as a determinant of their asset selection, 5 percent admitted this factor was of great extent, 10 percent great, 20 percent moderate extent, 60 percent less extent, while to 5 percent of participants this factor was of negligible extent. This means that 60 percent of the participants...
are not concerned as much about trading on information. In terms of possessing a superior portfolio 75 percent agreed with this to a great extent, 10 percent great, 5 percent moderate, 5 percent less extent, 5 percent negligible extent. From this it is evident that 75 percent of respondents thought they had a superior portfolio than their counterparts. When asked about their trading habits and whether they enjoy trading, 70 percent of participants admitted they do not enjoy trading in securities. On their risk taking habits only 5 percent admitted to enjoying taking risks, 5 percent admitted to it being great, 10 percent moderate, 60 percent less extent while to 20 percent it was negligible. In terms of holding onto losing stock, 80 percent agreed to a greater extent while to 5 percent this factor was of negligible consequence.

4.1.4 Irrational Factors

![Figure 4.3](image-url)

**Figure 4.3**
Irrational Factors
Figure 4.3 represents irrational influences clouding investors’ investment prospects and the extent of influence in percentages. When asked about certain irrational influences on their trading behavior participants had various responses; 80 percent disliked market volatility, 5 percent conduct fundamental analysis on investment prospects, 80 percent admitted to being averse to market uncertainties, prefer updates from their regular stock broker to a new stock broker, were optimistic of their future financial prospects and consider post purchase acceptance by their social group in their investment as well as being political by inclination. Surprisingly enough 95 percent of respondents admitted to taking little time in executing an investment prospect. This shows how irrational the participants are in their trading behavior.

5. Summary and Conclusion

5.1 Summary

This study was premised on the research question; what factors influenced the decision of Siaya Institute of Technology teachers to participate in recent IPOs in Kenya?

5.1.1 Principal Findings

The research confirms that trading in capital markets is hardly based on information as only 5 percent of respondents conduct fundamental analysis on their investment prospects in terms of quality of firm products, firm corporate social responsibility, expertise of firm managers and board of directors and perceived ethics of the company as depicted in. In their asset allocation strategies, 80 percent of respondents were influenced by media news releases, broker recommendations, family members’ pre-purchase approval, friends, colleagues and social group popular opinion. At the same time 80 percent of respondents hold onto losing stocks for fear of receiving negative returns, have little information on market trends, are risk averse and believe that their portfolio is the best among various other portfolios. These respondents are optimistic of their future financial prospects despite prevailing economic uncertainties.
5.2 Conclusion

Decision making is a process encompassing several variables. Economic variables play a limited role for the investor in their asset selection and portfolio composition. Psychological, social as well as environmental factors play a bigger role as noise trading keeps capital markets vibrant. Classical finance assumption of an investor being rational, risk averse and guided by market fundamentals is hereby discredited. It emerges from this research that investor over-confidence in terms of superior portfolio holdings, representative heuristic in terms of momentum strategies and framing in terms of mode of presentation were prevalent in Siaya institute of technology teachers’ decision making processes.

5.3 Recommendations

A similar study could be carried out on market timing ability and portfolio management ability of teachers on during different market swings. Further research on behavioral biases could be conducted on sectorial basis such as banking sector, manufacturing sector and industrial and allied sector.

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