

THE EFFECTS OF INFLUENTIAL BEHAVIOURAL FACTORS ON  
INVESTORS' DECISION MAKING IN STOCK MARKET OF PAKISTAN

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## **DEDICATION**

*I wish to dedicate to my family, teachers  
&  
friends*

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It is a pride and honor for me to be able to acknowledge today the owing towards various influential of my life. First of all my acknowledgment is towards the almighty Allah and to him we will return and bow our heads in all our deeds and assignments. It is my pleasure to further acknowledge the tribute to my country that is Pakistan, that this is the soil which gave me the zeal and zest to show my face to whole of the world and I am nothing but only an off shoot of this country.

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## ABSTRACT

The objective of this study is to investigate the relationship between behavioural factors affecting individual investors' decision behaviour while investing in the capital stock market. To achieve this objective, the study has tested the relationship of firm's specific attributes and personality traits of individual investors in the stock market of Pakistan. In addition, this study has examined the mediating effect of sensational attitude between (1) firm's specific attributes and investment decision behaviour and (2) personality traits and investment decision behaviour. Furthermore, this study also investigates the moderating effect of brand familiarity on the relationship between firm's specific attributes and sensational attitude. In this study, the positivist research approach has been used and survey methodology has been adopted to collect responses from individual investors of capital markets of Pakistan. The purposive probability sampling technique was employed and about five hundred questionnaires were distributed while four hundred fifty responses were returned and were used in the present study. Structural equation modeling techniques were applied to analyze the data. Findings indicate that firm's specific attributes and personality traits were found positive and significant predictors of investment decision behaviour. Additionally, sensational attitude was found to have a significant mediating role between firm's specific attributes, personality traits and investment decision behaviour. Besides, brand familiarity was found as a moderator on the relationship between firm's specific attributes and investment decision behaviour. The results highlight that both firm's specific attributes and personality traits are essential in the investment decision behaviour among individual investors of the Pakistani stock market. As there are limited studies about behavioural finance in Pakistan, therefore, this study will contribute significantly to the development of capital market of Pakistan.

## ABSTRAK

Objektif kajian ini adalah untuk mengkaji hubungan antara faktor-faktor yang memberi kesan kepada tingkah laku keputusan pelabur individu ketika melabur dalam pasaran saham modal. Untuk mencapai matlamat ini, kajian telah menguji hubungan sifat-sifat khusus firma dan personaliti pelabur individu dalam pasaran saham Pakistan. Di samping itu, kajian ini telah mengenal pasti kesan pengantara sikap sensasi di antara ciri-ciri spesifik (1) firma dan tingkah laku keputusan pelaburan dan (2) ciri-ciri personaliti dan tingkah laku keputusan pelaburan. Seterusnya, kajian ini juga menyiasat kesan penyederhana jenama kebiasaan bagi hubungan antara sifat-sifat khusus firma dan sikap sensasi. Dalam kajian ini, pendekatan penyelidikan positivis telah digunakan dan kaedah tinjauan telah digunakan untuk mengumpul maklum balas daripada individu-individu pelabur pasaran modal Pakistan. Teknik pensampelan telah digunakan dan kira-kira lima ratus soal selidik telah diedarkan dan sebanyak empat ratus lima puluh borang soal selidik telah dikembalikan dan telah digunakan dalam kajian ini. Pemodelan persamaan struktur telah digunakan untuk menganalisis data. Kajian menunjukkan bahawa sifat-sifat dan ciri-ciri personaliti tertentu firma mempunyai kesan yang positif dan signifikan pada tingkah laku keputusan pelaburan. Selain itu, sikap sensasi didapati mempunyai peranan perantara yang signifikan antara firma sifat-sifat tertentu, personaliti dan tingkah laku keputusan pelaburan. Selanjutnya, jenama kebiasaan didapati sebagai penyederhana kepada hubungan antara sifat-sifat khusus firma dan tingkah laku keputusan pelaburan. Keputusan kajian ini menekankan bahawa sifat-sifat firma dan personaliti adalah penting dalam tingkah laku keputusan pelaburan di kalangan pelabur individu pasaran saham Pakistan. Disebabkan kajian-kajian mengenai tingkah laku kewangan di Pakistan adalah terhad, kajian ini akan memberi sumbangan besar kepada pembangunan pasaran modal Pakistan.

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## LIST OF ABBREVIATIONS

PR	-	Perceived Risk
PT	-	Perceived Trust
PRt	-	Perceived Return
OC	-	Overconfidence
RTS	-	Risk Tolerance
SM	-	Self-Monitoring
SI	-	Social Influence
IDB	-	Investment Decision Behavior
SA	-	Sensational Attitude
BF	-	Brand Familiarity
KSE	-	Karachi Stock Exchange
LSE	-	Lahore Stock Exchange
ISE	-	Islamabad Stock Exchange
UIN	-	Unique Identification Numbers
CDC	-	Central Depository Company
MPT	-	Modern Portfolio Theory
EMH	-	Efficient Market Hypotheses
NCEE	-	National Council on Economic Education
SPSS	-	Statistical Package for Social Sciences
AMOS	-	Analysis of Moment Structure
SEM	-	Structural Equation Modeling
EFA	-	Exploratory Factor Analysis
CFA	-	Confirmatory Factor Analysis
CFI	-	Comparative Fit Index
RMSEA	-	Root Mean Square Error of Approximation
AGFI	-	Adjusted Goodness of Fit Index
$\chi^2/df$	-	Chai Square / Degree of Freedom

GFI	-	Goodness of Fit Index
NFI	-	Normed Fit Index
P-Plots	-	Probability plots
N	-	Number of Respondents
S.D	-	Standard Deviation
CR	-	Composite Reliability
AVE	-	Average Variance Extracted

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background

The capital market is a market where stocks, bonds, certificates and other securities are bought and sold (Zuravicky, 2005). In addition to serving as a source of investment funds, the stock market also performs as a signalling mechanism to managers regarding investment decisions, and a facilitator for corporate governance (Samuel, 1996). Moreover, the capital market is best known for being the most operative network available to companies in search of investment capital (Zuravicky, 2005). The general public deals with capital markets because of the benefits like dividends, long-term growth of capital, investor identity, power and freedom to hedge against inflation (Teweles and Bradley, 1998; Croushore, 2006). There is one major stock market characteristic which makes it so attractive to investors, and that is, ease of liquidity (Jaswani, 2008).

A look back at the past reveals that the Romans' were pioneers in establishing cooperative organizations, where capital was collected for government contracts by selling shares to the general public in the second century before Christ (Sobel, 2000; Smith, 2004). In Rome, the trading area was near the Temple of Castor in a place called Forum (Smith, 2004). Forum functioned just like a stock exchange where the general public could not only buy and sell corporation's shares, but also various goods for cash (Smith, 2004). In the 11<sup>th</sup> century, France was the first country that allowed banks to manage the debt of agricultural communities. Therefore, on the basis of these activities they were called the first brokers. Later on, other brokers

were found in the 15<sup>th</sup> century and it was the time when rialto bridge of Venice was considered as the European business center. The sixteenth, seventeenth and eighteenth centuries were belonging to the revolution in commercial sector (Sobel, 2000). Captivatingly, the first active market was held in Antwerp and then in Amsterdam during the 16<sup>th</sup> century. Thus, these active markets were the first financial centers of the northern Europe. However, the real commercial revolution occurred in the 19<sup>th</sup> century with the establishment of “London stock exchange” in 1801 (Smith, 2004).

Now a days, stock markets can be classified at three levels i.e. developed (e.g. USA, UK, Japan, EU etc.), emerging (e.g. Mexico, China, India etc.) and pre-emerging (e.g Pakistan, Vietnam, Estonia, Kenya etc.) (FTSE, 2011). To study the influence and dependence of capital markets has become essential than ever before because of its ability to contribute towards a country’s economy (Ali, 2011). Moreover, global issues such as terrorist movements, energy crisis, and natural calamity have had a great influence on the volatility of all securities markets around the world (Qureshi *et al.*, 2014; Fernandez, 2006).

However, the Pakistan stock market was not built as a result of any of the above mentioned issues. In Pakistan, there are three stock exchanges namely Karachi stock exchange (KSE), Lahore stock exchange (LSE) and Islamabad stock exchange (ISE). The Karachi stock exchange (KSE) is located in Karachi (in Pakistan) and was established in 1947, also known as the Pakistan's largest and oldest stock exchange, with a number of Pakistani as well as overseas listings. In KSE, the index was launched in late 1991 with a base of 1,000 points. Islamabad stock exchange (ISE) was incorporated as a limited company on 25<sup>th</sup> October, 1989 in Islamabad. The purpose of the Islamabad stock exchange was to cater the needs of less developed northern areas of Pakistan.

Lahore stock exchange came into existence in October 1970, under the securities and exchange ordinance 1969 by the government of Pakistan in response to the needs of the provincial metropolis of the Punjab province. Although, the Pakistani stock markets have developed significantly in both the number of listed

stocks and transaction values, but there still exist ups and down swings. There are a number of reasons behind these swings regarding transaction values in Pakistani stock markets. However, individual investor's behaviour towards investment is among those aspects which have not been shed light by earlier studies (Waweru, Munyoki, and Uliana, 2008).

In developing countries, stock markets offer the opportunity for substantial profits to financial investors and investors started assuming it as a part of their savings. However, at the same time, their operation and the nature of stock price behaviour needs to be understand (Hayat, 2012). The stock market of Pakistan is considered to be highly volatile as it is highly sensitive and reactive to unanticipated shocks, which takes no time to impact market activities. At the same time, the Pakistani stock market is resilient and recovers soon after shocks. Some of the recent studies have linked this with investors' psychological aspects. For instance, Hayat (2012) avowed that 90 percent of this uncertain change is because of the investors' psychology and only 10 percent is because of fundamentals, a unique mindset of Pakistani investors.

The Pakistani stock market has been in existence for over six decades. However, if we gauge the number of investors in the market by the number of unique identification numbers (UIN) in CDC (central depository company), there are around 270,000 UINs of which more than half are inactive. If we compare this with around 30 million bank deposit holders in Pakistan, the Pakistani stock market has not been successful to attract a substantial investor base.

One of the reasons is that the risk (standard deviation) of the Pakistani stock market at 25% is much higher relative to other stock markets in the region. Thus, investors have found stock market investment very risky and have shied away from it. This has partially to do with the high economic, political and security risk factors in the country. However, excessive leveraging and the mindset of investors to take short-term speculative positions rather than long-term investment positions are other factors that have made the Pakistani market more risky comparing others. Also, stock

investing has been limited to a few large investors and has not spread among millions of small investors, as is the case in other emerging markets (Amjad, 2010).

This is the reason why the Pakistan stock market has lacked the necessary depth and breadth, which is imperative for an efficient market. Just about every stock market of the world has an option for investors to take leveraged positions in the market. These options provide the market the necessary liquidity, which is important for price discovery and unfettered entry/exit for investors. Margin financing and derivative products (options and futures) are the most common options used by the investors globally.

The Pakistani stock market/trading declined by approximately 58% in 2008. It rose by 60% in 2009 and has risen further by 12.1% in 2010 to-date. This continuous upward movement of stock exchange has attracted alumni investors to invest in the markets. However, based on the high volatility of the Pakistani stock market it is suggested to the investors to invest in equities via asset allocation or balanced funds (Amjad, 2010).

Some theories assumed that, following the basic financial rules and investment decisions regarding risk-return, investors could rationally maximize their wealth. However, the investor's risk acceptance level depends on their personal characteristics and attitude toward risk (Burton *et al.*, 2007). It is, therefore, necessary to explore behavioural factors that can impact the individual investors' decision-making process. Behavioural finance can be helpful in this case because it relies on psychology to explain why people buy or sell stocks (Waweru, Munyoki, and Uliana, 2008).

Many researchers consider behavioural finance a good theory to understand and explain the feelings and cognitive errors affecting investment decision-making (Waweru, Munyoki, and Uliana, 2008). Supporters of behavioural finance believe that the study of social sciences such as psychology can help to reveal the behaviour of the stock market, market bubbles and crashes (Gao and Schmidt, 2005). There are two reasons why behavioural finance is important and interesting for application in

the Pakistani stock market. First, behavioural finance is still a very new topic to study in Pakistan, especially for the individual stock investors. Recently, a feasible model to explain how investors in financial markets make decisions and how these decisions influence financial markets has been accepted (Kim and Nofsinger, 2008). Secondly, due to subjective, academic, and experimental evidence, it is concluded that Asian investors, including those in Pakistan, usually suffer from cognitive bias more than people from other cultures (Kim and Nofsinger, 2008). Therefore, consideration of the factors influencing the Pakistani investors' decision behaviour process cannot ignore the behavioural elements.

Behavioural finance studies have been carried out with success in the developed markets of Europe and the USA (Caparrelli *et al.*, 2004; Fogel and Berry, 2006) as well as in emerging and frontier markets, for example Malaysia and Kenya (Lai *et al.*, 2001; Waweru *et al.*, 2008).

Pardo and Valor (2003) found a significant correlation between the weather and behaviour & psychology of the individual investors. This phenomenon can also be included in the field of 'behavioural finance', as it promotes the integration of psychological factors with investment decision behaviour within stock markets.

Due to global recession, investors in financial markets are facing serious losses. Risk is involved in every type of investment such as insurance, mutual funds and equity trading. Risk refers to the probability of financial loss or making bad decisions. Investment in equity trading does not offer assured returns. Investment returns are associated with performance. All investments contain a risk factor. When faced with uncertainty about the results and high risk perception, individuals may estimate financial loss, which in turn develops strategies for risk reduction such as searching for information to reduce the risk (Cho and Lee, 2006; Fisher and Statman, 1997; Taylor, 1974); Howcroft *et al.*, 2003).

Behavioural finance is a major development in the finance field and helps to explain investor behaviour and the related stock market movements as a result of investor behaviour. Behavioural finance uses emotional, social and cognitive factors

indicative of sympathetic investors' behaviour. Behavioural finance has gained notable attention recently for explaining the influence of investor psychology in investment decision behaviour. Studies, which drew attention to individual investor behaviour, first appeared in the 1980s. Its prime focus was the psychological implications employed by individual investors in making decisions, especially investment choices.

Kahneman and Tversky (1979) presented a theory regarding behavioural finance. They thought that individual investors may not be as rational as at first thought. Behaviourists have been of the opinion that investors tend to behave in an irrational manner, particularly when making investment decisions (Kahneman and Tversky, 1979). They consider that an individual investor's decision behaviour is generally based on anchoring, overconfidence, mental accounting, overreaction, and herding behaviour (Banerjee, 1992). Behavioural finance is a rapidly developing area that deals with the influence of psychology on the behaviour of financial professionals. Behavioural finance relaxes and in a few cases abandons traditional finance theories (Shefrin, 2000).

Investors have taken a much more cautious approach toward investments. Due to the serious financial crisis, unpleasant investor experiences are reflected in risk and attitude to risk. This condition creates factors influencing investor behaviour (Waweru, Munyoki, and Uliana, 2008). Investor behaviour is crucial to stock market investment. Moreover, this decision depends on many behavioural factors such as overconfidence, overreaction, mental accounting, anchoring and herding behaviour, investor attitude, financial knowledge, personality traits, information asymmetry, past investment experience, perceived risk, perceived trust, perceived return etc. that can affect investment behaviour.

## **1.2 Introduction**

Decision-making is a complex process and efficiency of decisions depends upon the emotional stability of the decision maker. Investors in no exception are

induced by their intuitive feelings and emotions in decision making under uncertain and complex situations. Behavioural finance is one, amongst the latest developments in the field of finance, which challenges the long held theories of traditional finance and explains the behaviour of investor along with the movements in capital markets. For instance, Modern Portfolio Theory (MPT) attempts to maximize portfolio expected returns for a given portfolio risk or generating the same level of expected returns through minimizing risk. Modern portfolio theory assumes that, markets are efficient and investors are rational.

Muth (1961) presented Efficient Market Hypotheses (EMH) which states that, financial markets are 'informationally efficient' where an investor remained unable to generate abnormal returns on continuous basis. These theories fail to explain the statistical anomalies of price movements in stock markets and draw an unrealistic and narrow view of market participation as described by Malkiel and Saha (2005) and Malkiel (2003).

Behavioural finance is one of the significant developments in the field of finance in recent times. Behavioural finance uses social cognitive and emotional factors in understanding an investor's behaviour. Now days, behavioural finance has become inspiring catch all in the eyes of researchers because of its ability to explain the investors' psychology towards decision making.

Studies focusing individual investor behaviour were firstly appeared around 1980s considering investors' psychological aspects in making investment decisions as the unit of analysis. Moreover, the term behavioural finance can be backed by Khneman and Tyeovsky's (1979) theory. Khneman and Tyeovsky (1979) commented that investor may not appear to be as rational for investment as supposed to be. These Behaviourists are of the opinion that investors behave irrationally while making investment decisions. In addition, behaviourists suggested overconfidence, overreaction, mental accounting, anchor and herd behaviour as the base for an investor's decision making process (Banerjee, 1992).

Shefrin (2000) defined behavioural finance as “a rapidly developing area that contracts with the influence of psychology on the behaviour of financial professionals”. Behavioural finance goes on to relax and even in some cases to abandon the theories of traditional finance like rational behaviour, efficient market hypothesis and random walk theory. It does not reject the theories offered by traditional finance, but deepens the concepts to comprehend and clarify the investors’ behavioural characteristics. Behavioural finance outlines the shortcomings of traditional finance relevant to rational acting of investor. It integrates the psychological and social factors relating to investor in financial models and relates them with situational factors in order to find their relevance to capital market participants.

Increasing global bankruptcies, hypermarket competition and severe financial crises have posed serious challenges for corporations to ensure their sustainable progress. Corporations and researchers are striving hard to find the ways by which they can not only maintain the existing stock investors, but also to attract more investors to generate more revenues (Frieder and Subrahmanyam, 2005; Helm, 2007; Aspara and Tikkanen, 2008). Therefore, corporations are devoting more resources to ensure better relations with their investors, corporate social performance, increase their presence in the media and the similar factors that motivate investors to buy and hold stocks of the company (Aspara and Tikkanen, 2008; Murphy and Soutar, 2005; Zhu, 2002; Ivkovi and Weisbenner, 2005).

Equity investors are considered as the best source of cheaper and long-term capital for organizations. Therefore, research scholars are not only focusing the investment decision making process of institutional and individual equity investors, but also the factors that influence them during this decision making process. The prevailing research on individual investor investigates the effects of cognitive bias on investor’s decision making. For instance, the work of Haslem and Baker (1974), Tyeovsky and Khneman (1992), Nagy and Obenberger, (1994), Shiller (1999), Slovic *et al.*, (2002a, 2002b), and Statman *et al.*, (2008) discussed the role of various psychological and fundamental effects on investment decision. However, personality traits and sensational seeking are among those aspects that have not been focused by



researchers towards the same cause. Some recent studies (e.g. Schoenbachler *et al.*, 2004; Frieder and Subrahmanyam, 2005; Helm, 2007; Aspara and Tikkanen, 2008; Ali, 2011; Sjöberg and Engelberg, 2006; Moffitt *et al.*, 2011) created the interface between personality traits, psychological biases, firm's specific attributes and behavioural finance and tested the relationship of investor behaviour with corporate reputation, product design, perceptions about company and company's brands.

Aspara and Tikkanen (2010) indicted about the scarcity of research on investors' perception regarding corporation and its effects on investment decision. Similarly, Odean (1999) finds that individual investor lean to trade aggressively, take more risks, and make poor investment decisions. Moreover, Barber and Odean (2001a) hold that individual equity investor exhibit local bias in making investment decisions. However, little focus has been given towards identifying those attributes that individual investor values regarding their equity decision making process (Aspara and Tikkanen, 2008; Murphy and Soutar, 2005).

Researchers stressed the importance of identification of personality traits and firm's specific attributes that influence individual equity investor behaviour (Katharina *et al.*, 2012; Sjöberg and Engelberg, 2006). Moffitt *et al.* (2011) opined that existing methodologies of stock investment incorporate fundamental, technical and institutional investor analysis, but lack investigation of the influence of key fundamental factors in equity investor's decision making. Murphy and Soutar (2005) point out that not much is known regarding how individual equity investor commits investment.

The majority of existing literature on behavioural finance roams around institutional investors due to their high contribution in financial markets and less focus has been given to individual equity investor. Individual retail equity investors are very important, particularly for those stock exchanges that are known for their speculative bubbles and market manipulation practices by large investors. In countries like Pakistan, where stock exchanges do not follow macro-economic movements as identified by Ali *et al.* (2009), common investor hesitates to invest in stock exchange due to the hedge money of large manipulating investors. The market

making and manipulating practices of such players can only be minimized by encouraging retail equity investors to save and invest in stock exchange and form the basis of a genuine equity market. The ratio of individual retail equity investors is very low in Pakistan and needs to be increased in order to make stock exchange a true representative of the national economy. In one developmental study, Ali *et al.* (2009) stated that saving rate in Pakistan is lowest in the world and Pakistani stock markets are highly volatile and speculative, therefore, failed to attract large number of retail investors. These issues generate the need to examine the factors that can effect investors in the stock market of Pakistan.

### **1.3 Problem Statement**

Finance theories suggest that the stock market and economic activities are strongly correlated with each other. A trivial moment in one segment will likely influence other segment. Due to this positive and high correlation between stock markets and the economy, growth in economic indicators will thus influence investor sentiments because of positive order flow in economic fundamentals (Zuravicky, 2005). The role of investors is moving prices of assets, thus movement on trend of stock market is long debated.

There are now growing evidences that investors' participation and order flow in the markets are largely driven the economic fundamental and firms specific attributes. Following the global financial crisis in 2008, investor sentiments have been severely affected and investors have significantly opted to exercise greater caution before taking positions in trading the stock and therefore reluctant to trade frequently, thus adding to an the already dried up market across the emerging markets.

Risk is the core issues that investors often confront with when decided to buy/selling the securities in stock market. Since financial risk is an inherent feature of all investment options and among different groups of investors, individual investors are generally less able to objectively evaluate firm risks & returns and tend

to be emotionally biased in their investing decisions (Katharina *et al.*, 2012). Therefore, their decisions may form because of perceived risk & returns and are influenced by the firm's fundamentals (Ali, 2011). The behaviour of individuals and institutional investors are often looked through literature. Growing body of published studies now look at various explanatory, exogenous and latent factors that contribute significantly to developing an attitude toward the rational behaviour of investors. While large amounts of literature address the issue of engaging individual investors in the stock market and making a firm's shares viable, researchers have recently focused on various psychological parameters associated with participating in the stock market.

Given the increasing importance of investing in the stock market, a handful of literature is divided into different strands depending on the nature of the stock. For example, one set of researchers focused on the firms' specific attributes (fundamentals and risk) such as perceived trust in a particular brand of the firm and categorized these attributes as imminent factors that compel investors to trade in the stock market (Clark and Payne 2006; Olsen 2008). In addition, firm's reputation is also strengthened when investors have a high level of trust in it.

In this vein, Siegrist and Cvetkovich (2000) asserted that cognitive trust normally gives greater weight than affective trust, when a particular hazard (e.g. Financial loss) being evaluated is familiar with the trust. A firm with good historical earnings is definitely a strong choice compared to the choice with unstable background returns. For example, when investors have determined that a particular firm had worthwhile returns in the past, they tend to perceive that this trend will also hold in the future.

Based on the past performance of firm perceived trust can easily developed (Olsen, 2008). Investors think that the previous trend of earning will continue in future as well. Besides that individual investors are less able to evaluate the firm financial position and their decisions are generally based on the firm's repute (Frieder and Subrahmanyam, 2005).

It is a common perception among investors, advisors and practitioners that psychological aspects play a vital function in financial decision making and counselling. Research results support these views (Slovic, 2001; Hilton, 2001). Kahneman (2000) stated that this can be attributed to the fact that individuals' do not act in accordance with economic theory. Therefore, the fundamental question is what other aspects or psychological models can be constructive in casting light on financial decision-making?

The Kahneman Tversky's traditional theory has been imperative in motivating work on decision-making and financial psychology of investors (Hogue and Loughran, 2000; Shefrin, 2001) however, it is subject to certain limitations. Much of the research cited in conjunction with investor counselling (Shefrin and Thaler, 1988; Kahneman and Riepe, 1998) was conducted in fields other than finance indeed, mostly in the laboratory with imaginary finding without real world consequences.

Perceived risk, perceived trust and perceived return are usually determined the degree of desire to invest in the stock market. Previous researchers also support such notions. For instance, Wong and Carducci (1991) and Kirkcaldy and Furnham (1993) added to the findings by stating that people who value money and make more decisions that involve monetary risks score higher on tests conducted to measure sensation seeking elements in their personalities. Furthermore, a firm's name is believed to be the primary brand factor (Berry, 2000; Davis *et al.*, 2008), such that investors find it easy to evaluate its brand benefits hence forming a conceptualization as an antecedent of consumer attitudes towards a brand.

In the investment context, investors have been found to incline towards investing in companies that they are familiar with (Davis *et al.*, 2005; Huberman, 2001; Aspara and Tikkanen, 2008). Consequently, knowing the brand of the firm becomes crucial, as it indicates the type, market and other specific characteristics of that particular stock. When an investor's familiarity with the brand is high, their inclination to trust the company can also be expected, thus the relationship between brand familiarity is moderated (Ali, 2011).

Few other studies extend this discussion by focusing on others behavioural and cognitive factors in relation to individual investment decision making and inferred significant implications for individual investors to invest in the equity market (Ritter, 2003; Barber and Odean 2001; Brown *et al.*, 2008). This set of researchers suggests that investor emotions are largely driven by psychological notions. Similarly, the work of (Statman *et al.*, 2008; Shanthikumar and Malmendier, 2003; Slovic *et al.*, 2002, 2007; MacGregor *et al.*, 2001; Hodge, 2000; Shiller, 1999; Statman 1995; Epstein and Freedman 1994; Nagy and Obenberger, 1994; Tyeovsky and Khneman, 1992) highlight the role of diverse psychological and fundamental effects on an investors decision to invest.

Among such psychological factors, information asymmetry and heuristic phenomenon (representativeness, over confidence, anchoring, availability bias) are fundamental factors that affect investor decision making. Among other behavioural factors, previous researches suggest that familiarity towards a firm influences consumers' perceived risk of the company since they use company-specific factors to reach their expectations and subjectively evaluate risk and returns (Huang *et al.*, 2004; Weber *et al.*, 2005) thus putting them in a better position to make investment decisions. In a similar vein, Michael *et al.* (2012) argued that when investors avoid regret through mental accounting (Richard Thaler, 1980), they will likely favor a greater allocation of assets which will result in unavoidable regret in the future.

While a large number of studies have addressed the relation between individual investor decision making and psychological factors and firm attributes, financial literacy appeared to one of significant factors in investing decision. The empirical relationship of investors' financial literacy with their investment decision making ignored.

Few studies have descriptively addressed the investor's financial literacy however, the impact of financial literacy (Shefrin and Thaler, 1988) on individual investor's decision making has not been empirically investigated. For instance, Hilgert *et al.* (2003) documented the impact of financial knowledge on various aspects of the investors' financial behaviour. These aspects include credit

management, cash-flow management, saving investment and other financial experiences such as financial plans and goal setting. There is a significant statistical relationship between specific financial knowledge scores and consequent financial practices (e.g., knowing the correlation between credit issues and having higher index scores and credit management practices). In a similar vein, Moffitt *et al.* (2011), Vrplanketn and Heabadi (2001) and Faber and Vohs (2004) argued that people with low self-control and monitoring are less likely to manage money rationally, often leading to credit problems.

There is a growing belief that lack of adequate financial literacy and capability coupled with an inadequate level of understanding and due diligence makes investors vulnerable to unscrupulous activities and unwise investment decisions as they may ignore basic prudent measures before entering into a contractual agreement with a financial service provider. In addition, many studies (Lusardi and Mitchell, 2007a, 2008, in press; National Council on Economic Education (NCEE), 2005; Hilgert *et al.*, 2003; Bernheim, 1995, 1998; Hilgert *et al.*, 2003; Likely, Stango and Zinman, 2007; Haliassos and Bertaut, 1995) have found that financial knowledge is of great importance in terms of rational investment decision making.

According to past research studies, in emerging markets the investors' participation in the stock market is relatively low as compared to developed countries (Waweru *et al.*, 2008). Therefore, the emerging markets provide unique settings to conduct this study. Particular focus to conduct this study in Pakistan is largely motivated by some reasons which distinguished Pakistan from the rest of the emerging markets. The Ratio of Investors participation in the Pakistan stock market is very low among emerging markets (Uppal, 2009). Out of 600000 registered investors only 37,000 which are considered to be active investors. One of the reasons identified by regulators is low financial awareness among Pakistani investors and liquidity position (Tribune, 2013). Because of low trading activities among investors, the firms are not able to capitalize their trade volume and consequently size.

This problem led the Pakistani capital stock market to face serious problems such as exclusion of the MSCI club in 2008 (Tribune, 2013). Excessive leveraging and the mindset of investors to take short-term speculative positions rather than long-term investment positions are other factors that have made the Pakistani market more risky comparing others. In addition, stock investing has been limited to a few large investors and has not spread among millions of small investors, as is the case in other emerging markets (Amjad, 2010).

Further, investors also observe the valuation changes in the assets prices which are largely dominated by behavioural factors According to Naqvi (2013), in Karachi stock exchange the value change in assets reflects a combination of market performance in Karachi stock exchange that large numbers of investors believing in. This behavioural factors inclination can plausibly be government excessive fund flow in to the economy, low cost or sector specific loan provisions. Once investors' expectation increases because of the behavioural factors, they take on the buy position in the market, thus propels the market more higher (Naqvi, 2013).

In another stream of research on relationship between perceived risk, perceived return, perceived trust and the sensation that is experienced when investing in the stock market, the relationship of personality traits with sensation seeking attitudes has theoretically been assumed to have a prominent role in determining the investors' attitude towards sensation seeking behaviour (Sjöberg and Engelberg, 2006; Ederington and Golubeva, 2009; Brealey and Myers, 1996; Ali, 2011). This relationship has been empirically not tested. It is believed that the most fundamental personality disposition that has significant implications for financial decision making is assumed to be that of sensation seeking (Zuckerman, 1994). The simplified rationale behind this notion is that individuals who mull over money and take financial risks will likely have a higher score on sensation seeking (Kirkcaldy and Furnham, 1993) thus on investment decision making.

Given that previous research shows that individual traders investing decisions commonly psychologically biased and driven by behavioural factors, there is a possibility that investors in Karachi stock exchange are subject to some fundamental

emotional aspects such as brand familiarities while taking on their position in buying and selling securities. In this vein, Ali and Rehman (2013) argue that although plenty of psychological characteristics influence investors in stock selection in Karachi stock exchange, corporate reputation that is largely considered as brand familiarities seems to be a vital component for investors in trading decisions.

Iqbal and Azher (2014) descriptive noted that investors risk preferences in Karachi stock exchange portray that investor take a position of buying/selling securities of familiar brand with stable return, thus exhibit a risk averse behaviour towards non-familiar brand. They further noted that familiarity with the company's ranked top among other factors as far as investor investment decision is concerned. Sensational attitude plays a vital role in attitude to perform (Ali, 2011).

This study, therefore empirically tests the brand familiarity as a moderating factor on the relationship between firm specific attributes and investment decision behaviour and sensational attitude as an antecedent to perform any action in the stock market of Pakistan. In addition, by motivating Katharina *et al.* (2012), Sjöberg and Engelberg (2006) and Ali and Rehman (2013), this study will also empirically investigate the effect of personality traits on investment decision behaviour in stock market of Pakistan.

#### **1.4 Contribution/Research Gap**

This study aims to empirically test the influence of firm-specific attributes, personality traits and psychological factors on the investor's decision making. The contribution of this study to the existing body of knowledge is twofold.

First this study considers firm specific attributes (perceived risk, perceived trust, perceived return) as main antecedents of the investment decision behaviour through the mediating effect of sensational attitude which is further moderated by firm brand familiarity. This contribution is largely motivated by Ali (2011).



Secondly, this study considers the personality traits of an individual equity investor through the mediating effect of sensation seeking attitude. This contribution is largely motivated by the theoretical arguments of past researchers. Kelly and Lee (2005) asserted that there is a possible difference in the decision making and information-seeking techniques of people with different personality traits. Many studies agree that certain personality traits dispose people to be behaved in certain ways, either consistently or inconsistently in terms of investment decisions. Scholars of different subjects such as organizational psychology, personality psychology, finance, and biology have argued that personality traits are important factors which influence the decisions that people make in their daily life (Gallagher, 2010; Kelly and Lee, 2005; Moffitt *et al.*, 2011).

Keeping in mind the importance of personality traits, some personality traits have been selected by the researcher of this study to know their impact on investor decision making. Such traits include (overconfidence, social influence and self-monitoring). Moreover, it is believed that most fundamental personality dispositions have significant implications to financial decision making including those that are associated with sensation seeking (Zuckerman, 1994). Another exciting contribution that the study makes to extant literature is to empirically investigate the impact of financial literacy on individual investor behaviour. This contribution is largely motivated by evidence that individuals with low levels of financial education are not mature enough to make their retirement plans and to gain returns on investments (Lusardi and Mitchell 2007).

Researches also described that such individuals are involved with high-interest mortgages and face problems with debt (Moore, 2003; Lusardi and Tufano, 2009). This study also seeks to extend the contribution to compare psychological, personality traits and firm specific attributes and their roles in investment decision making in order to help explain which factors play a significant role in the decisions of equity investors.

## 1.5 Research Questions

The current research is entitled to check the factors that can influence the individual equity investment decision behaviour and guide investor's decision making. Following research questions have been devised that will be addressed through scientific investigation in this study.

1. Do firm's specific attributes (i.e. perceived risk, perceived trust, perceived return) affect sensational attitude and investment decision behaviour among individual investors of stock market of Pakistan?
2. Do personality traits (i.e. overconfidence, social influence, self-monitoring) affect sensational attitude and investment decision behaviour among individual investors of stock market of Pakistan?
3. Does sensational attitude mediate the relationship between firm's specific attributes (i.e. Perceived risk, perceived trust, perceived return) and investment decision behaviour among individual investors of stock market of Pakistan?
4. Does sensational attitude mediate the relationship between personality traits (i.e. Overconfidence, social influence, self-monitoring) and investment decision behaviour among individual investors of stock market of Pakistan?
5. Does brand familiarity moderate the relationship between firm specific attributes (i.e. Perceived risk, perceived trust, perceived return) and sensational attitude among the individual investors of stock market of Pakistan?

## **1.6 Research objectives**

The following influential objectives are set for this research study, which can guide the research questions and can depict the contributory appraisal of the research.

1. To examine the direct influence of firm specific attributes (i.e. perceived risk, perceived trust, perceived return) on sensational attitude and investment decision behaviour among individual investors of stock market of Pakistan.
2. To examine the direct influence of personality traits (i.e. overconfidence, social influence, self-monitoring) on sensational attitude and investment decision behaviour among individual investors of stock market of Pakistan.
3. To examine the mediating role of sensational attitude in the relationship between firm specific attributes (i.e. Perceived risk, perceived trust, perceived return) and investment decision behaviour among individual investors of stock market of Pakistan.
4. To examine the mediating role of sensational attitude in the relationship between personality traits (i.e. Overconfidence, social influence, self-monitoring) and investment decision behaviour among individual investors of stock market of Pakistan.
5. To examine the moderating role of brand familiarity on the relationship between firm specific attributes (i.e. Perceived risk, perceived trust, perceived return) and sensational attitude among individual investors of stock market of Pakistan.

## 1.7 Hypotheses of the Study

In accordance with the research questions and objectives of the present study, it aimed to test the following hypotheses:

**H1a:** Perceived risk is a negative predictor of sensational attitude of investor.

**H1b:** Perceived risk is a negative predictor of investment decision behaviour of investor.

**H1c:** Perceived trust is a positive predictor of sensational attitude of investor.

**H1d:** Perceived trust is a positive predictor of investment decision behaviour of investor.

**H1e:** Perceived return is a positive predictor of sensational attitude of investor.

**H1f:** Perceived return is a positive predictor of investment decision behaviour of investor.

**H2a:** Overconfidence is a positive predictor of sensational attitude of investor.

**H2b:** Overconfidence is a positive predictor of investor's decision behaviour of investor.

**H2c:** Social influence is a positive predictor of sensational attitude of investor.

**H2d:** Social influence is a positive predictor of investor's decision behaviour of investor.

**H2e:** Self-monitoring is a positive predictor of sensational attitude of investor.

**H2f:** Self-monitoring is a positive predictor of investor's decision behaviour of investor.

**H3a:** Sensational attitude mediates the relationship between perceived risk and investors' decision behaviour of investor.

**H3b:** Sensational attitude mediates the relationship between perceived trust and investors' decision behaviour of investor.

**H3c:** Sensational attitude mediates the relationship between perceived return and investors' decision behaviour of investor.

**H4a:** Sensational attitude mediates the relationship between overconfidence and investors' decision behaviour of investor.

**H4b:** Sensational attitude mediates the relationship between social influence and investors' decision behaviour of investor.

**H4c:** Sensational attitude mediates the relationship between self-monitoring and investors' decision behaviour of investor.

**H5a:** Brand familiarity moderates the relationship between perceived risks and sensational attitudes of investor.

**H5b:** Brand familiarity moderates the relationship between perceived trust and sensational attitudes of investor.

**H5c:** Brand familiarity moderates the relationship between perceived returns and sensational attitude of investors.

## **1.8 Significance of the Study**

Attracting and retaining stock investors is an important concern for corporations in recent times. Researchers are striving to probe and develop various models that explain individual investor behaviour. This research study is an attempt to extend the current scholarly discourse by investigating the role of firm-specific attributes, risk, and psychological factors in determining the equity investor's decision making. Given its' importance, this study is significant in a number of ways.

First, this study has significance to academic literature. The current research empirically extends the role psychological factors and firm specific factors through additional aspects of personality traits of the equity investor's investment behaviour while participating in the stock market. This research attempts to extend personality

trait aspects on investor behaviour in the context of sensational attitude as mediating variable and it is additionally analyzed in the context of moderating variable namely brand familiarity.

The role of brand familiarity has been frequently discussed by recent researchers (Aspara and Takkanen, 2010; Aspara and Tikkanen, 2008; Helm, 2007; Frieder and Subrahmanyam, 2005; Schoenbachler *et al.*, 2004). These researchers established an edge between behavioural finance and marketing and empirically established association between corporate reputation, product design, perceptions about firm and firm brands with investor behaviour. This study also extends the literature on financial literacy. Previous researchers have pioneered this concept and descriptively investigated the domain of financial planning. Financial knowledge has significant implications for investors, i.e. whether to invest or not, and given its importance the empirical relationship of financial literacy with equity investor behaviour is marginalized in previous literature.

Second, current research offers multidimensional functional insights for Pakistani equity markets, corporations listed on stock exchanges and investment advisors by investigating equity investor behaviour in a broader context ranging from their risk and return choice to current state of financial literacy. Extracting insights from individual equity investors on their psychological, behavioural, sensational attitude, and personality traits will enable associated stakeholders to deal with various groups of investors according to their preferences, personality traits and extent of financial knowledge.

The current study will serve as a strategy document for corporations who wish to do business with individual stock investors. This study will also provide insights into the decision making process of individual equity investors and their preferences regarding stock attributes which influence their investment commitments and the stocks which they prefer to hold.

## **1.9 Scope of the Study**

The proposed research is an investigation of the influence of firm specific factors, personality traits, heuristic variable, prospect variables and fundamental behavioural factors on the investment decision behaviour of investors in the stock market. In addition, this study will investigate the moderating effect of brand familiarity and mediation effect of sensational attitude on the firm specific attributes and personality traits with the investment decision behaviour of individual investors in the stock market of Pakistan. The scope of this study is restricted to listed firms on KSE (Karachi stock exchange), ISE (Islamabad stock exchange) and LSE (Lahore stock exchange) of Pakistan. Five hundred registered individual investors in KSE, LSE and ISE is the sample for this study.

This research is generalizable to the other developing economies, keeping their own country specific factors. Further, this research looks into the behavioural determinants of one type of investors that is individual investors. There are some other classes of investors such as institutional investors and professional money managers. The proposed research cannot be generalizable to other classes of investors. Professional investors and institutional investors exhibit different kind of behavioural aspects and adopt different ways of making an investment decision and their portfolio management behaviour is also altogether different from the individual investors.

## **1.10 Limitations of the Study**

Following are the limitations of this study:

- I. Due to the time constraint, the proposed research focuses only on the behaviour of individual investors in the Pakistan stock market. There are other classes of investors such as institutional investors and professional money managers. Findings of current research cannot be generalizable for other classes of investors.

- II. As the present study focuses on the developing stock market only, this study will be applicable to other countries after considering their own country specific fundamental behavioural factors that can affect individual investment decision behaviour.

## **1.11 Operational Definitions of the Variables**

### **1.11.1 Investment Decision Behaviour (IDB)**

The Oxford Advanced Learner's Dictionary states that the term decision making represents the process of decision making about something important, particularly for an organization or a group of people. Trewatha and Newport (1982, p. 148) define the process of decision making as follows: "Decision-making involves the selection of a course of action from among two or more possible alternatives in order to arrive at a solution for a given problem".

### **1.11.2 Sensational Attitude (SA)**

Attitude is a mental or neural state of being ready, organized by use of experience, asserting a dynamic or direct influence on the response of an individual to situations and objects to which it relates, (Allport, 1935). Attitude is also a mindset or tendency to act in a particular way due to temperament or individual experience. Attitudes help show us how we see situations, and defines how we behave in a particular situation or for the object.

### **1.11.3 Brand Familiarity (BF)**

Although brand is being generally associated with a name or symbol-like logo, trademarks and package design differentiate it from its competitor (Aaker,



1991). In addition, company name is believed to be the primary brand factor (Berry, 2000; Davis, 2008).

#### **1.11.4 Perceived Risk (PR)**

Perceived risk is a judgement subjective in nature which people make regarding the severity and characteristics of a risk. The consumer's level of uncertainty in respect of the outcome of a decision to purchase is more specifically in the case of high price items. Most consumers attempt to reduce their anxiety by collecting more and more information and seeking recommendations from peers or an entity (like a person or advocacy group) considered to be an expert on the subject.

#### **1.11.5 Perceived Trust (PT)**

An 'affective trust' is normally demonstrated whereby the trusted party, management and directors are believed to be fair, compassionate and conduct themselves with integrity in demonstrating terms (Clark and Payne, 2006). Companies with good historical earnings therefore are definitely a strong choice as compared to others with volatile historical returns. Cognitive trust is relate with perceived reliability and competence of the provider, whereas perceived competence can easily be demonstrated through past performance (Olsen, 2008).

#### **1.11.6 Perceived Return (PRt)**

Expected return on investment is known as perceived return, which is a performance measurement tool used to evaluate the efficiency of the investment or to compare the efficiency of different investments. Perceived return is opposite of perceived risk.

### **1.11.7 Overconfidence (OC)**

Overconfidence is a term used to describe people who overestimate the reliability of their skills and knowledge (DeBondt and Thaler, 1995; Hvide, 2002). A plethora of studies show that high trading volumes affect investors. Analysts and investors can also be overconfident in particular areas of their knowledge (Evans, 2006).

### **1.11.8 Social Influence (SI)**

Self-monitoring' is defined as a 'personality trait', a sort of 'social intelligence'. It is the disposition in attending to 'social cues' and adjusting one's behaviour according to one's 'social environment' (Biais *et al.*, 2005). It refers to the ability to control and modify behaviour that is considered a 'desirable expression' in different situations and sensing it at the time of its occurrence (Snyder, 1974).

### **1.11.9 Self-monitoring (SM)**

The concept of social influence is also explained as behavioural dispositions. Social attitude played an important role in attempts to correctly predict and fully explain human behaviour (Campbell, 1963; Sherman and Fazio, 1983; Ajzen, 1988).

## **1.12 Organization of the Thesis**

This particular thesis is targeted to identify the micro factors affecting individual investment decision behaviour in the Pakistan stock market. The projected thesis consists of five chapters which build on each other and closely associated. The flow of the thesis is:

First chapter introduces the importance of investor behaviour in the stock market and behavioural finance by studying the behaviour of the equity investors. It also explains the recent researches in the area of behavioural finance and the research gap to be filled by the present study. It further discusses the problem statement, research questions and objectives of the research along with the importance and scope, limitations, operational definitions and outline of the thesis.

Chapter two presents a review of related behavioural finance literature. The chapter begins with a choice of theory and followed by a few words about the background of behavioural finance including comparison and linking of behavioural finance, traditional finance and a review of work on behavioural finance in Asian context. This chapter covers the empirical support and theoretical background for the present study.

Following the development of the theoretical background, chapter three discusses the theoretical framework and hypotheses for the present study in greater detail. This chapter also discusses the methods used to measure variables, validate the model and test the hypotheses. This chapter has four sections. The first section presents a brief review of the research paradigm, and the methodology used in this study. Section two provides an overview of the research design utilized in this study including development of the survey, data collection procedure, pilot study and sampling procedure. Statistical techniques for quantitative data processing are central to the research method adopted in this study.

In chapter four of this proposed study, all the data results has been compiled, evaluated and discussed in detail. Chapter five warped up the empirical results of the relationship among the micro factors affecting individual investment decision making in the Pakistan stock market and will correlate it with hypotheses presented in chapter three. Implications of the study along with the conclusion, recommendations, and future research suggestions conclude the chapter.

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