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Investors' Attitude toward Stock Market Risk-A Chittagong Perspective

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Abstract

The purpose of this study is to examine the extent to which investor awareness and perceived risk attitudes affect stock market investors' behavior in the Chittagong Stock Exchange (CSE). CSE performances do not reflect the attitude of investors in this market and bridging the gap between these two is the main objective of this research. This study is the ever first to examine the attitude of investors toward stock market risk in CSE. A cross sectional quantitative research is designed using proportional sampling approach. Total 100 investors were selected from different brokerage houses in Chittagong. The questionnaire includes four parts where Likert scale was used to understand their level of risk. This research finds negative relation between investor awareness and their behavior. It finds positive relation between perceived risk attitude and investment behavior. Study also reveals that there is huge scope to orient investors in this market as they do not possess necessary knowledge and skill to play active role to give birth of efficient market. Law enforcing authority also needs to be more careful to implement the existing rules to bring back the confidence of investors toward trading system, transparency, practicing corporate governance etc.

Keywords: Investor's attitude; stock market; Chittagong Stock Exchange; risk

1.0 Introduction

Last few decades, stock market has become one of the lucrative investment sectors in Bangladesh. Bangladesh stock markets have grown considerably during the last decade (Chowdhury et al., 2023). Still, the size of the market is relatively small compared to other Asian Markets. Size and liquidity of the companies provide some distinguishing features of developing markets. According to Central Depository Bangladesh Limited (CDBL) at present (2015) the number of Beneficiary Owners (BO) accounts in Bangladesh is 32, 15,062. BO accounts increased due to rise in IPO in recent time (Chowdhury et al., 2023). Many investors expect risk free options to make profit. IPO is one of the risk free options. The reason for increasing number of stock market investors in Bangladesh are of two folds. Increased income level and high return on investment. The economy of Bangladesh is growing at a faster rate and per capita income in 2014 increased to US\$957.82 (Abdullah et al., 2022). From beginning of 2011 stock market went into correction mode and fallen sharply and came down to lowest level by the end of 2011. Unlike normal falling market, the bearish mode of 2011 was quite different. During the fall quite a number of times market experienced 15-25% fluctuations (Chowdhury et al., 2021). Only very few number of institutions and individuals can gain positively from those fluctuations. At present

market is continuing with that bearish trend with the same fluctuation. Although stock market investors in Bangladesh are increasing, they do not have necessary knowledge and experience to play rationally in this field (Chowdhury et al., 2023). They want quick return at quickest time. Their stock holding period is very short. To ensure the success of stock market, it should be efficient. Necessary information should be made available as soon as these are generated. There should have transparency in financial reporting system (Chowdhury and Islam, 2017). Corporate governance should be practiced by all the listed companies to the best possible extent. Necessary training, seminar, symposium etc should be arranged by stock bourses, brokerage houses, government and other concerned parties to create awareness among the stock market participants. Rooij and Lusardi, (2007) found that individuals have become increasingly active in financial markets and market participation has greatly been promoted by invention of new financial products ((Chowdhury, 2021). In reality, investors do not receive all information freely; they have to decide whether and which information to gather prior trading and investors end up staying afloat in a sea of uncertainty (Gary and Uri, 2003; Chowdhury, 2012) which in turn affects their level of awareness. Awareness refers to the consciousness about a given aspect (Zhen, 2009). According to Luigi, et al (2005), individuals who are knowledgeable are significantly more likely to buy stocks and risky assets and also invest in stock. In order to enhance awareness of the capital markets in the communities, the stock markets have put in place programs such as annual financial literacy weeks, issuing of annual reports and quarterly bulletins among others. Empirically, there is evidence that investors have a bias to invest in stocks of companies they are more familiar with (Zhu, 2005; Chowdhury, 2012). Any additional private information a trader may have will determine his belief about assets expected cash flows hence affecting investor's perceived risk attitude. Perceived risk attitude addresses a person's judgment towards taking or avoiding risk when making decisions under uncertain outcomes (Elke et al, 1997; Chowdhury, 2016). The classical theorists argue that differences in attitudes to risk affect the allocation of wealth between safe and risky assets, but not the particular asset selected. However, the decision to accept a particular asset and the willingness to pay for the asset depends on the investor's risk perception. Investors' perceptions of the riskiness of choice alternatives always differ significantly from individual to individual depending on a person's beliefs, and reference point. An investor's perceived risk attitude is usually determined by either affect/emotions or his cognitive ability. And this makes perceived risk attitudes of investors to be more subjective rather than objective to risky situations. Emotional reactions are predominant at a very early stage and are more basic than cognitive evaluations. Under such circumstances, investors are prone to unjustified beliefs and may resort to 'rule of thumb' hence making sub-optimal (irrational) investment decisions (Gary and Uri, 2003; Chowdhury, 2017). Investors are therefore likely to base on psychological or social and emotional factors to make decisions.

2.0 Statement of the problem

Stock market investors in Bangladesh are increasing day by day. Inconsistency is a common phenomenon in this market. People invest in this sector to make profit in fortnight and do not keep their investment for long-term. Majority of stock market investors in Bangladesh are illiterate on stock market mechanism and follow the mass blindly. This nature of investors is utilized by so-called syndicates to maximize their own interest through information manipulation, artificial transactions and other means. This study will unearth the sentiment and attitude of investors' toward stock market risk from various perspectives.

3.0 Objectives of the study

The main objective of this research is to know how awareness and perceived risk attitude influence investor behavior while trading in the stock market. To find this objective, following objectives have also been set;

- a. to find out the relationship between investor awareness and perceived risk attitude in the Chittagong Stock Exchange;
- b. to determine the relationship between perceived risk attitude and investor behavior in the CSE.

4.0 Research questions

- a. What is the relationship between investor awareness and perceived risk attitude?
- b. Do perceived risk attitudes of investor influence investment behavior?
- c. To what extent do investor awareness and perceived risk attitude affect investor behavior?

5.0 Scope of the study

This study is limited to investors living in Chittagong. It focuses on the relationship between awareness, perceived risk attitudes and investor behavior in CSE. Awareness covers financial awareness and social learning; investment behavior focuses on psychological and emotional or social aspects of behavior whereas perceived risk attitude signifies both affective and cognitive factors which discover the nature of investors as risk adverse, risk neutral or aggressive.

6.0 Contribution of the study

This research is intended to increase the level of knowledge in the area of awareness and it will give an insight on the fact that investment or trading can be driven by behavioral motives as opposed to fundamental motives. The research will also provide valuable information to the CSE, government bodies, institutions, potential listing companies, researchers & individuals in Bangladesh. The findings will form an information base for policy makers on how to better performance of stocks and increase stock participation through proper education.

7.0 Conceptual framework

In order to make proper investment decisions, investors require information and should be knowledgeable about stock market activities. Awareness can be ensured through social learning, gathering financial information from different sources. The level of awareness influence investors behavior through increasing knowledge level, prediction capacity etc. According to Guiso and Japelli (2005), awareness of investors can be increased through learning from issuers and distributors of information, investment opportunities from peers who are again informed by financial intermediaries (social learning). On the other hand, awareness can be through financial awareness which is mostly determined by the investor's resources (income, financial wealth), age and education background (Chowdhury and Begum 2012). The information hold by an individual determines their risk perception.

Finucane et al. (2000), emphasizes that if information are made easily available, investors treat it highly risky and vice-versa. This makes perceived risk negatively correlated to self-esteem, rigidity and risk taking hence affecting investor behavior (Chowdhury and Chowdhury, 2014).

According to Henriettee (2004), human behavior is not only cognitive, but also emotional which influences investor's trading behavior. The importance to incorporate psychology of investor is

to explain how perception of investors and their reactions to uncertainties affect the investment decision through influencing stock price movement.

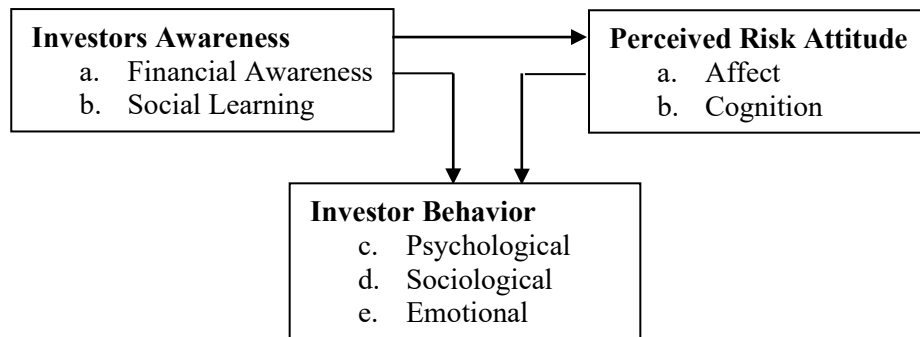


Figure 6: The relationships among the factors are shown below

Source: Luigi&Tullio (2005), Weber&Milliman (1997) and Alexander (2004)

7.1 Investor Awareness

There are two types of investors, aware and unaware. Aware investors may know for example the existence and characteristics of a risky asset (bonds and stocks) and have the same information on the probability distribution of the stock return (Chowdhury and Chowdhury, 2017). The others are not aware of stocks. Hence they can only invest in bonds, regardless of the entry costs. The shadow cost of ignorance is the expected excess return. In stock markets, information is usually transmitted from issuers to investors through several different channels mainly through mandatory public disclosure by issuers, voluntary public or private disclosure by issuers; and private acquisition by investors from sources other than the issuer, such as purchasing research reports from stock analysts, examining the firm's products or services, and consulting the firm's competitors among others (Zhen 2006; Chowdhury and Chowdhury, 2023). In the case of small investors, information relied on is mainly from public disclosure, well as professional investors use all channels. In particular, some professional investors are selected by the issuer to receive material information, for example, through quarterly analyst conference calls. Many issuers favor such selective disclosure for practical reasons, such as concealing information from their competitors leading to an information gap within the financial market (Zhen, 2006; Chowdhury and Nahar, 2017).

7.2 Social Learning

Many investors learn from other individuals through social interaction, which is another channel for spreading stock market information. Social interaction indeed increases the probability that individuals become financially aware. However, depending on parameter values, intense social interaction may induce asset suppliers to rely on word-of-mouth rather than direct information production, thus saving on information dissemination costs. Grossman and Stiglitz (1980) and Verrecchia (1980) examined how information on asset returns affects portfolio choice. In these models differences among investors are endogenous, and financial information reduces subjective uncertainty on returns. According to Merton (2007), individuals who were exposed to economics during their schooling may be more likely to have friends (perhaps their classmates) that invest in the stock market. Because of "peer effects" in investing, respondents exposed to these friends may themselves be more likely to invest in the stock market. Several studies have

documented that “peer effects” can be pretty powerful determinants of portfolio choice (Hong et al., 2004; Chowdhury and Reza, 2013) and Brown, Ivkovich, Smith and Weisbenner, 2007). The education level of peers does matter for stock ownership. Those who have friends that have a college degree are more likely to own stocks. Thus there may be information provision and learning via social interaction. Newspaper readership has a positive impact on awareness, and its coefficient is always highly significant. Increasing readership raises the probability of stock awareness, mutual funds, and corporate bonds (Guiso and Jappelli, 2005). Awareness is strongly correlated with education, year of birth, wealth, long term bank relations, newspaper readership and the index of social learning.

7.3 Financial Awareness

Learning from financial intermediaries is another way people become aware of investment opportunities since financial illiteracy is widespread and individuals lack knowledge of even the most basic economic principles (Lusardi and Mitchell, 2006; Chowdhury et al., 2021)). Bernheim (1995, 1998) was the first to point out not only that most households cannot perform very simple calculations and lack basic financial knowledge, but also that the saving behavior of many households is dominated by crude rules of thumb. In more recent works, Bernheim, Garrett and Maki (2001) and Bernheim and Garrett (2003) show that those who were exposed to financial education in high school or in the workplace save more. Similarly, Lusardi and Mitchell (2006, 2007) show that those who display low literacy are less likely to plan for retirement as well as less likely to make investments and, as a result, accumulate much less wealth. Agarwal, Driscoll, Gabaix and Laibson (2007) further show that financial mistakes are prevalent among the young and elderly, who are those displaying the lowest amount of financial knowledge.

7.4 Investor Awareness and Perceived Risk Attitudes

What people perceive is influenced by how they select information to process. People are incapable of absorbing all information, and are therefore selective as to what information receives their conscious attention hence determining their level of awareness (Chowdhury, 2018). Each person will interpret information differently and their interpretations of information are influenced by factors such as their knowledge, and their feelings and attitudes among others. Although, some information may be disregarded if it is inconsistent with the perceived "story," what one person perceives can differ from what another person perceives, even though the information is the same. People are prone to accept information from unreliable sources if such information is believable and consistent with their existing perceptions of event. A number of studies have indicated that attitude to stock market risk depends upon the recent behavior of the stock market. An alternative perspective on that evidence can be derived from research by Weber and Milliman (1997) and Chowdhury, (2019) who suggested that risk preference may be stable and that the effect of situational factors, such as stock market performance, may be caused by changes in perceptions of risk. They further found that influences on investment choices simultaneously affected risk perceptions. It could be the case that attitude to perceived risk is constant, and that what changes is the perception of risk. From the perspective of providing financial advice, this implies that by correcting misperceptions about the risks of investments, a financial adviser can have a positive influence on investment decisions. A financial adviser might note that the provision of some information about an investment is likely to reduce a client's perception of risk (Chowdhury and Rozario, 2018). However, the provision of too much information could cause confusion and procrastination. Information overload inhibits decision-

making. Also, the familiarity bias suggests that information that is not understood is likely to deter a client hence increasing the perceived risk causing reluctance in buying stocks of companies they are unfamiliar with (Chowdhury, 2010).

Among non-experts, risk is perceived as greater if the person lacks information about, or control over, outcomes. Lack of information and control in regard to investment outcomes leads to mistrust of providers of financial services and mistrust of financial advisers (Sjoberg, 2001). Therefore, the investor's perceived risk attitude is negatively related to the level of awareness; the more knowledgeable and informed an investor is, the lower the perceived risk attitudes and vice versa for low levels of awareness (Chowdhury et al., 2015).

7.5 Perceived Risk Attitudes

Investing is clearly risky and people routinely have to make decisions under uncertainty due to incomplete information. Depending on the amount of information an investor has regarding various stocks on the stock market determines one's risk perception. The perceived degree of uncertainty by individuals affects their decisions regarding consumption, saving and investing (Cary & Javier et al, 2008). Perceptions encompass psychological and emotional aspects, which subsequently guide judgment and decision making. And this makes perceived risk attitudes of investors to be more subjective rather than objective to risky situations. Therefore, the attitudes we form and express are likely to be influenced both by emotions and a more "logical" cognitive assessment (Breckler & Wiggins)

7.6 Affect

Affect often refers to one's emotions/ feelings. Research has shown that emotion can better be defined by examples of emotional states. Elster (1960) defines emotion as a physiological state of arousal triggered by beliefs about something. On the other hand, emotion can be seen as "the felt tendency towards anything intuitively appraised as good (beneficial), or away from anything intuitively appraised as bad (harmful)" (Arnold 1960). However, Solomon (2000) addresses emotions as a complex influence that combines cognitive, physiological, social, and behavioral aspects of an individual. Though on the contrary, emotions are addressed as evaluative rather than cognitive judgments (Frijda 2000). Emotions are evaluative in that they evoke positive or negative valences about an object for example, being unhappy or happy or being pessimistic or optimistic (Bradley and Lang 2000). Despite the lack of a unified definition, there is some agreement on the set of emotions that exist. According to Elster (1998), some states such as anger, hatred, guilt, regret, fear, pride, elation, joy, and love are clearly emotions. According to Peter (2003), elements of emotion such as feelings of control, dread, and knowledge imply risk always contains an emotional or affective dimension. Survey evidence indicates that such emotional factors as control and dread figure prominently in the perception of financial risks, and that emotional dimension such as dread are important in the perceived risk of financial gambles.

7.7 Cognition

According to Lucy et al (2003), cognition refers to an individual's belief towards an object. The beliefs we form can either be positive or negative depending on aspects like, knowledge, moral, intelligence, inspiration, dishonesty, and being weak among others (Lavine et al 1998). The examination of cognitive aspects of financial behavior in isolation is troublesome and may be misleading. Emotional reactions or evaluations occur at a very early stage and are more basic than cognitive evaluations (Zajonc 1980; LeDoux 1996). Furthermore, theorists recognize that

emotion and cognition are interdependent, rather than competing, influences (Simon 1967). Emotions are seen to be triggered by beliefs; hence, an investor regrets an investment decision because she believes that bad outcomes could have been avoided. In the stock market, it appears that an investor is more concerned with the financial risk and the opportunity risk than other risks. The financial risk is concerned with the outcome that will harm the investor financially whereas the opportunity loss risk is the outcome that by buying stock A, the investor will miss out on buying stock B he would really prefer buying. When an investor makes an investment decision, the investor's perception of these two risks can be a deciding factor. If the investor is risk averse, he will take steps to minimize risk, for example, by diversifying his/her investment in various stocks; if he/she is risk-taking, he/she will not tend to diversify his portfolio, for example, he will invest in one stock, expecting to get a high return on investment. Therefore, investors with various degree of perceived risk attitudes; perceived risk averse, perceived risk neutral or perceived risk takers will behave differently.

7.8 Investor Behavior

Human behavior among others determines investors' decision making on the stock markets. According to Huang (2003), human behavior is not only cognitive, but also emotional moreover; cognition and emotion are interrelated which influences investor behavior when trading. Investor behavior on the stock market is often seen to be a factor of cognition, emotion and social influences. And the need to incorporate psychology attempts to explain how perception of investors and their reaction to uncertainties affect the investment decision there by influencing price movements.

Alternative explanations advanced by various scholars, explain irrationality of investor behavior in financial markets as being driven by some sort of influence (Rabin, 1998). Naveed *et al* (2011) argue that small/ individual investor decision making on the stock market is driven by heuristics, prospect theory and regret aversion. This is seen to be based on psychology of investors as well as emotional and social influences. On the other hand, investors are seen to be generally irrational exhibiting a number of predictable and financially ruinous biases, often attributed to psychological factors- fear, greed, and other emotional responses to price fluctuations and dramatic changes in an investor's wealth (Andrew et al, 2005). Hence, investors succumb to behavioral biases when making investment decisions. According to Shefrin (2002), biases can cause people to emphasize or discount information, or can lead to too strong an attachment to an idea or an inability to recognize an opportunity. Similarly, the context in which you see a decision, the mental frame you give it i.e., the kind of decision you determine it to be can also inhibit your objective view hence leading to irrationality. A bias as a driver of investor behavior refers to a tendency or preference or belief that interferes with objectivity, a predisposition to a view that inhibits objective thinking. Biases that can affect investment decisions can be cognitive/psychological, emotional and social biases (Hersh 2002).

7.9 Perceived Risk Attitudes and Investor Behavior

Attitude towards perceived risk affects consumer behavior for instance, in decision making situations like stock market investment. The way an investor behaves on the financial (stock) market depicts his perceived risk attitudes about the available stocks hence affecting the trading of stocks and investor portfolio selection. Cognitive biases are seen to can cause an exaggerated perception of risk. Narrow framing entails focus on short-term investment performance when the investment is long-term. An example is the person who is concerned about quarterly stock

returns when the stock is perpetual. Short investment horizons are much more likely to show losses than long horizons. A short-term focus can cause an exaggerated view of the probability of losses, and hence an increased risk perception. Damasio (1994); LeDoux (1996), indicate that emotion improves decision making in two respects. First, emotion pushes individuals to make some decision when making a decision is paramount. In some situations in life, so many options exist that an individual could devote excessive amounts of time to the decision-making process. An individual could simply become overwhelmed by the possibilities. Emotion provides a coping mechanism and allows individuals to focus without being caught up in the details. Second, emotion can assist in making optimal decisions. A vast psychological literature shows that emotional state can significantly affect decision making (Elster 1998; Hermalin and Isen 2000). While strong emotional responses are often associated with poor decisions (particularly those of a financial nature), recent research in psychology indicates that the absence of emotions can also lead to suboptimal decisions. Emotion helps to optimize over the cost of optimization. Even mild emotional states can affect behavior (Isen 2000). Positive feelings can make it easier to access information in the brain, promote creativity, improve problem solving, enhance negotiation, and build efficient and thorough decision making. Emotion facilitates optimal-choice behavior when a person is provided with several courses of action (Rolls 1999).

However, little attention has been paid to the direct role of emotion on choices of a financial nature. Recently, Lo and Repin (2001) studied the physiological characteristics of professional securities traders while they are engaged in live trading. They report significant correlation between market events and physiological characteristics. They conclude that emotion is an important determinant of a trader's ability to survive in financial markets. Other recent research has focused on the role of emotion in a more indirect fashion. Specifically, anomalous financial behavior is frequently attributed to emotion.

A person's current emotional state may influence financial decision making. For example, an individual in a good mood because of recent experience or current position in life brings this positive outlook to the task at hand. Ashbury, Isen, and Turken (1999) argue that a positive mood enhances individual performance on many cognitive tasks. A large body of literature supports the theory that positive mood allows individuals to better organize and assimilate information and facilitates creative problem solving without affecting their knowledge, attention, and memory among others.

7.10 Investor Awareness, Perceived Risk Attitudes and Investor Behavior

With regards to the level of awareness and knowledge of alternatives available on the market in making an investment choice and in decision making, investor expertise and experience is of crucial importance (Alba and Hutchison, 1987; Lim, 1999). Investors with expertise have a higher level of awareness relative to novices (Bettman and Park, 1980; Lim, 1999). In addition, experts scored better in evaluating the offerings of various competitors (Bendapudi and Berry, 1997; Lim, 1999). The amount of experience investors have accumulated will affect their decision-making capabilities and expectations about their broker. Investor's past experience in stock trading is also relevant in shaping predictions and desires (Smith and Swinyard, 1983). The better the expertise and knowledge an investor has, the lower the risk perception and the higher the levels of trading. On the other hand, in analysing the perceived risk attitudes of investors, there is need to attempt to predict future movements on the stock market when important news about companies listed on the market are issued hence affecting the buy/sell decision of the investor (Alexander,2004).

Diacon and Hasseldine (2007) found that clients were more likely to invest when shown presentations of performance over long periods due to a lower risk perception than when they were presented with a succession of short-period returns. Although more information is frequently thought to be beneficial, a financial adviser might benefit a client by making performance information infrequent. Yet, when making decisions, people tend to be influenced by what can be readily remembered. Vivid, much- highly publicized events such as stock market crashes that are easily recalled produce an exaggerated perception of risk compared to long periods of steady market advance which are less vivid and less publicized. The result is that people over-emphasize crashes and exaggerate risk causing investors less likely to trade in stocks. However, an adviser can provide more balanced information in order to overcome negative perceptions arising from the availability bias.

8.0 Literature Review

There are two types of investors, aware and unaware. Aware investors may know for example the existence and characteristics of a risky asset (bonds and stocks) and have the same information on the probability distribution of the stock return. The others are not aware of stocks. Hence they can only invest in bonds, regardless of the entry costs. The shadow cost of ignorance is the expected excess return. In stock markets, information is usually transmitted from issuers to investors through several different channels mainly through mandatory public disclosure by issuers, voluntary public or private disclosure by issuers; and private acquisition by investors from sources other than the issuer, such as purchasing research reports from stock analysts, examining the firm's products or services, and consulting the firm's competitors among others (Zhen 2009). In the case of small investors, information relied on is mainly from public disclosure, well as professional investors use all channels. In particular, some professional investors are selected by the issuer to receive material information, for example, through quarterly analyst conference calls. Many issuers favor such selective disclosure for practical reasons, such as concealing information from their competitors leading to an information gap within the financial market (Zhen, 2009). According to Brennan, M.J. (1995), individuals who were exposed to economics during their schooling may be more likely to have friends (perhaps their classmates) that invest in the stock market. Because of "peer effects" in investing, respondents exposed to these friends may themselves be more likely to invest in the stock market. Several studies have documented that "peer effects" can be pretty powerful determinants of portfolio choice (Malcolm Baker and Jeffrey Wurgler, 2007). The education level of peers does matter for stock ownership. Those who have friends that have a college degree are more likely to own stocks. Thus there may be information provision and learning via social interaction. Newspaper readership has a positive impact on awareness, and its coefficient is always highly significant. Increasing readership raises the probability of stock awareness, mutual funds, and corporate bonds (Guiso and Jappelli, 2005).

Awareness is strongly correlated with education, year of birth, wealth, long term bank relations, newspaper readership and the index of social learning. Learning from financial intermediaries is another way people become aware of investment opportunities since financial illiteracy is widespread and individuals lack knowledge of even the most basic economic principles (Lusardi and Mitchell (2006, 2007). According to (Dreman, D, 2007) financial awareness has got three relevant implications. First, issuers will target the individuals (or groups) that have a greater probability of investing in the stock market. The benefits of spending on information are greater where, once individuals are aware of investment opportunities, the chances of adoption are high.

Second, individuals are more likely to be aware where the cost of sending signals is lower, e.g. in areas where the cost of contacting investors is relatively low. Third, awareness should be higher in areas where the chance of learning from others is higher, because in those areas one can learn from peers as well as from the general media and from intermediaries. Guiso and Jappelli, (2005) incorporate wealth as a factor affecting awareness. If all investors are aware of stocks, costs, those who don't invest in stocks are simply those who are not aware that stocks exist. Education is strongly associated with awareness. According to Maarten, (2007), findings revealed that stock ownership increases sharply with education levels. , and only a small fraction of those with low education own stocks. Moreover, Guiso and Jappelli (2005) asserted that having a university degree is associated with an increase of 17 percentage points in the probability of being aware of stocks, and of 25 points for mutual funds, investment accounts and corporate bonds. Education and wealth are also likely to be correlated with social learning, because the wealthy and better educated are more likely to interact and learn from others. The perceived degree of uncertainty by individuals affects their decisions regarding consumption, saving and investing. Perceptions encompass psychological and emotional aspects, which subsequently guide judgment and decision making. And this makes perceived risk attitudes of investors to be more subjective rather than objective to risky situations. Therefore, the attitudes we form and express are likely to be influenced both by emotions and a more "logical" cognitive assessment (Breckler & Wiggins, 1989). Elster (1960) defines emotion as a physiological state of arousal triggered by beliefs about something. On the other hand, emotion can be seen as "the felt tendency towards anything intuitively appraised as good (beneficial), or away from anything intuitively appraised as bad or harmful (Arnold 1960). However, Solomon (2000) addresses emotions as a complex influence that combines cognitive, physiological, social, and behavioral aspects of an individual. Berger (2011) defines emotion as a physiological state of arousal triggered by beliefs about something. On the other hand, emotion can be seen as "the felt tendency towards anything intuitively appraised as good (beneficial), or away from anything intuitively appraised as bad or harmful. However, Berger (2011) addresses emotions as a complex influence that combines cognitive, physiological, social, and behavioral aspects of an individual. According to Lucy et al (2003), cognition refers to an individual's belief towards an object. The beliefs we form can either be positive or negative depending on aspects like, knowledge, moral, intelligence, inspiration, dishonesty, and being weak among others (Lavine et al 2006). Lavine also found, human behavior is not only cognitive, but also emotional moreover; cognition and emotion are interrelated which influences investor behavior when trading. Investor behavior on the stock market is often seen to be a factor of cognition, emotion and social influences.

9.0 Research Methodology

This research is based on cross sectional quantitative research design. In order to know the affect of independent variables on dependent variables, the research focused on both descriptive and analytical data. The design was used because data about variables can be obtained once in a given time period. A correlation approach using quantitative data was used to establish the relationship between Investor awareness, perceived risk attitudes and investor behavior. A regression model was established to know how the independent variable predicts the dependent variable. Total 100 samples selected randomly to gather data on the various issues through questionnaire. Likert scale was used to know the investors attitude based on various perspectives. Investor awareness was measured using a scale adapted from Ekambaram et al (2003). A 5 point Likert scale ranging from strongly disagrees to strongly agree was used. The perceived risk

attitudes of the investors was measured using a point bi-serial correlation adapted from Weber and Milliman (1997) between investor's risk judgment about the company and his choice and a psychometric approach based on Likert statements that produced a one dimensional risk attitude scale. Investor behavior was measured using State Street's approach which measures confidence directly and quantitatively by assessing the changes in investor holdings of risky assets, herding, over and under reaction and loss aversion of investors. This was based on Likert statements ranging from strongly disagree to strongly agree. Information from different secondary sources like journals, annual reports, news papers etc has also been collected.

10.0 Limitations

This research is based in Chittagong and data could not be collected from mass population due to financial and time constraints. Few respondents did not fill up the questionnaire with due attention, sincerity, lack of trust, and low level of conceptualization as a result inference drawn here may not reflect the actual scenario to a greater extent.

11.0 Reliability Test

To ensure the internal consistency or reliability of three major factors, investor awareness and perceived risk attitudes, and investor behavior Cronbach Alpha Co-efficient was used as an index of reliability. A questionnaire of 5 point Likert scale was used and test result found as shown below;

Reliability test report

	Cronbach Alpha Value
Investor Awareness	0.883
Perceived Risk Attitudes	0.735
Investor Behavior	0.632

Reliability values generated by using Cronbach Alpha method are found to be higher than 0.60 for all variables. This indicates the scale ensures internal consistency.

12.0 Data analysis process

The data were processed through tabulated frequency distribution using SPSS software. A correlation statistical technique was then used to test and establish the strength of the relationship among the variables. A regression model was used to examine the percentage of variance of the dependent variable explained by the independent variables for prediction purpose.

13.0 Hypothesis

- H₀: Investors' attitude is reflected in their investment decisions
- H₁: Investors' attitude is not reflected in their investment decisions

14.0 Findings of the Research

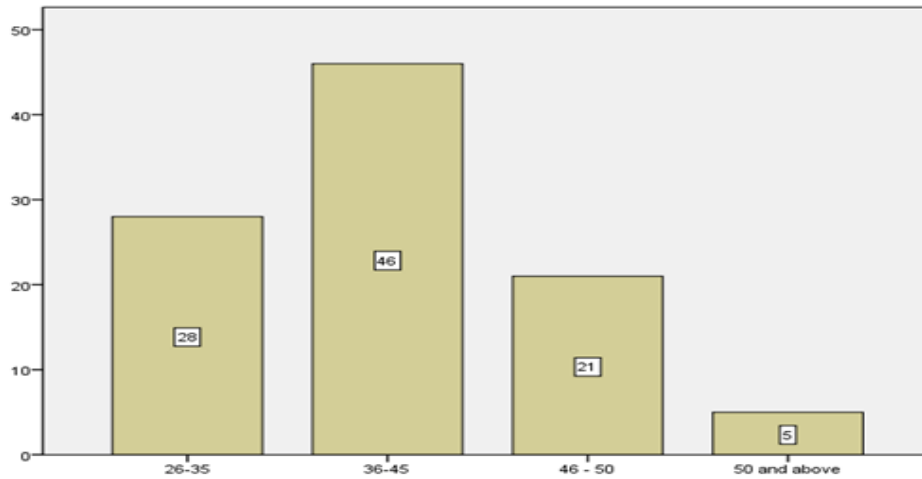


Figure 1: Age group

The above figure shows that 28% people are between 26 to 35 years, 46% are between 36 to 45 years, 21% are between 46 to 50 years and 5% are above 50 years. So, majority of our samples (46%) are neither too young nor too old.

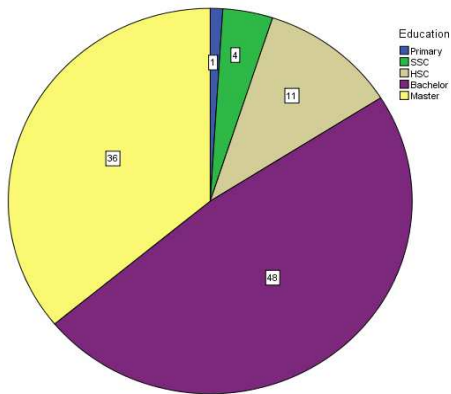


Figure 2: Education qualifications

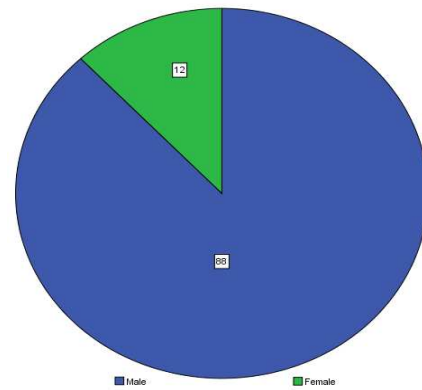


Figure 3: Gender

Above figures indicate that most of the respondents are bachelor degree holders (48%) followed by masters (36%) and only 1% are primary level completed. So, we can expect that the responses of samples carry insights of stock investors and the probability of false response may be very low. Again the inclusion of female (12%) is also a good sign of getting appropriate picture of attitude of female investors toward risk.

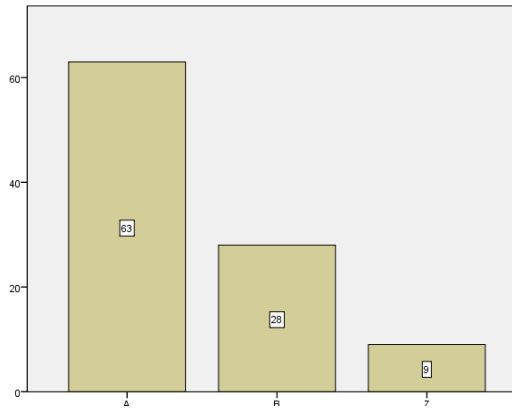


Figure 4: Type of stocks traded

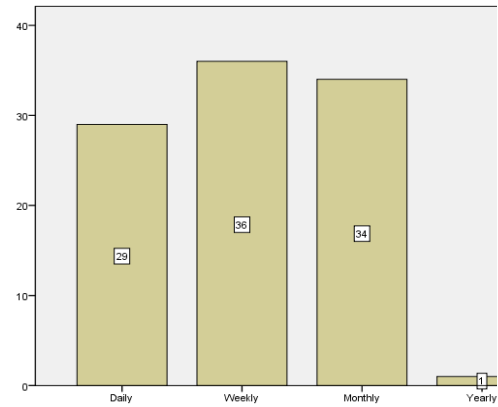


Figure 5: Frequency of trade

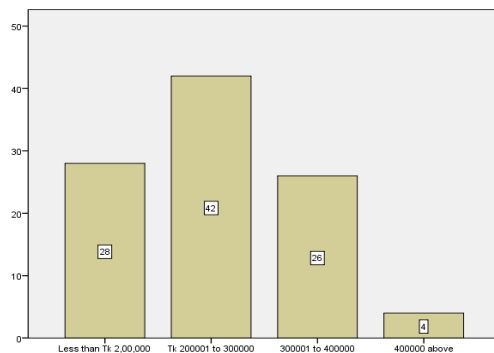


Figure 6: Annual Income

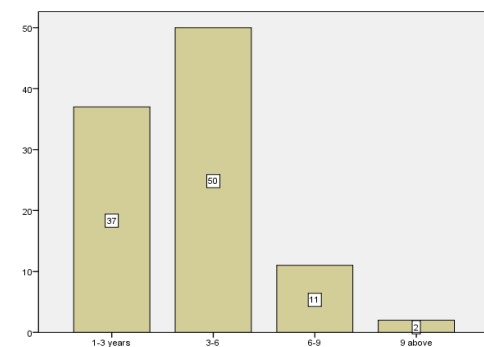


Figure 7: Experience

It is surprising to see that people who invest in the stock market they are at medium income bracket. And people who have sound solvency they are very few in the stock market. Again, low level income earners are also very much present (28%) in the market. In another figure, we see maximum investors (87%) are not experienced in stock investment. Whereas, old investors are only 13%. This clearly indicates that investors do not stay in our stock market for long time, very few people stay for long time (2%). Those who stay for short time, create the market unstable and volatile. By combining both the figures, we can say that Chittagong stock market is full of inexperienced, less solvent and greedy participants.

We see most of the investors prefer A category shares to trade as the dividend payment, AGM are held regularly and transparency is more practiced in those companies comparing to B and Z category shares. We also see people do not prefer to trade so frequently.

14.1 Investor Awareness:

Here total questions to understand the investors' awareness have been divided into two parts viz.,

- a. Social learning and
- b. financial awareness

14.1 (a) Factor Analysis for Social Learning

I follow the stock market on TV	0.501
I easily access the latest reports, prospectus and financial statements of any company	0.278
I usually attend seminars, conferences & Workshops on stock market	0.140
I visit stock market websites regularly	0.704
The CSE often hold educational programs to educate the public regularly	0.169
My peers influence me to take stock market decision	0.678
I have trouble paying attention to the information on the stock market	0.554
Eigen value	2.061
% of Variance	25.767
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.613
Determinant ratio of correlation matrix	0.333

If we look at the table, we see social learning of investor awareness constituted 25.767% of the investor awareness variable. Sampling adequacy is higher than the minimum required level of 0.50 and statistically quite significant. The determinant value has to be minimum 0.00001 and our value is much higher than this cut-off value (0.3333). Most important factors under this component include visiting CSE website regularly (0.704) and peer influences (0.678). Since seldom stock market authority arrange seminar, workshop, symposium, open fair, TV show on stock market affairs etc for general public to aware them about stock market and most of the investors trade as per advices of peers who are not expert in this field and also pay heed to the rumors. We observe very insignificant effects of these factors among investors to increase their social awareness regarding the stock market.

14.1 (b) Factor Analysis for Financial Awareness

I am knowledgeable on stock market activities	0.232
I understand the role of brokerage firms	0.397
I have trust on existing trading system	0.401
Listed companies publish financial statements regularly	0.811
I seek financial advice from brokers, intermediaries or financial services companies	0.797
Stock exchanges publish reports on corporate developments in a regular manner	0.801
Eigen value	2.459
% of Variance	40.990
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.739
Determinant ratio of correlation matrix	0.296

The result shows that financial awareness of investor constituted 40.990% of the investors' awareness variable. People usually update themselves by financial statements published by companies regularly (0.811), reports of stock exchanges on the corporate governance practices of different companies (0.801) and by seeking advices from licensed brokers, financial intermediaries etc (0.797). Our findings also proved that people are not aware of stock market mechanism (0.232) that means how the total capital market system works in an economy and what are the roles of brokerage firms (0.397), how transactions take place (0.401) etc. they just do the transactions over the phone with their respective security firms as per directions of peers and mass people.

14.2 Factor Analysis for Perceived Risk Attitudes

Under this category, we try to know the reaction of investors based on their affectiveness and cognitive capability toward risk.

I usually have a fear to invest in stocks that have a sure gain	0.663
I am hopeful when undertaking investment in stocks showing a sure loss	0.834
I am cautious about stocks which show sudden changes in price or trading activity	0.524
I do worry investing in stocks that have had a past negative performance in trading	0.380
I feel the appeal of participating in a buy/sell on the stock market.	0.670
I am comfortable with the stock trading mechanism	0.272
I do not hesitate to invest in stocks that have shown a past positive performance	0.141
I feel regret of a drop in the price of a stock I have purchased	0.745
Eigen value	1.793
% of Variance	22.408
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.50
Determinant ratio of correlation matrix	0.458

Both Kaiser-Meyer-Olkin Measure and Determinant ratio are within satisfactory range. The factors define 22.408% of the perceived risk level as far as affectiveness of the investors is concerned. Here we see people are very much optimistic to buy shares that may fall in near future (0.834) which is unusual nature of investors in this market. We also see people regret the decline of share price to a greater extent (0.745) and this is very ridiculous observation here. People do not enjoy investing in those stocks which have sure gain (0.663). People are not comfortable to trade under the existing system. We can infer that participants are irrational in framing their thoughts regarding stock market decisions.

Factor Analysis for Cognitive

My investment largely based on investment knowledge, experiences and education	0.536
I consider the credibility of brokerage firms that provide the financial services	0.000
I can easily ascertain the expertise of the brokers offering service	0.623
It is always easy to determine the credibility of the stock market	0.310
I can measure the service quality of staffs of brokerage firms	0.410
I understand completely how different investment products work	0.800
Eigen value	1.912
% of Variance	31.874
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.520
Determinant ratio of correlation matrix	0.53

Here all results are above minimum cut-off. As far as their cognitive nature is concern, investors have profound knowledge (0.800) on nature of different financial products like stocks, bonds, T-bill etc. They also can measure the service quality of brokerage firms. But it is quite surprising to observe that they seriously doubt the credibility of brokerage firms. This might be the consequence of misguidance or wrong advice regarding their stock trades. Here, we find a rational linkage in their perception toward risk

Relationship between the variables

	<i>Investor Awareness</i>	<i>Perceived Risk Attitude</i>	<i>Investment Behavior</i>
Investor Awareness	1		
Perceived Risk Attitude	-0.057349639	1	
Investment Behavior	-0.162249347	0.403836856	1

The above table indicates the relationship between investor awareness, perceived risk attitude and investment behavior of the investors. Here we see perceived risk attitude is negatively related (0.0573) with investor awareness. This indicates the more they update their knowledge on stock market the less their perception on risk. Awareness is negatively related with the behavior which indicates their behavior does not reflect their knowledge and awareness or the more they update themselves the less they behave promptly. On the other hand investment behavior is positively related to the perceived risk attitude (0.4038) which indicates that if investors exhibit worry, fear, and are cautious (high risk perceived) when making an investment decision on the stock market, it will lead to positive mood resulting into optimistic behavior; for instance, one may be more confident when trading in a particular company stock.

14.3 Regression model for the components

Independent variables: Social Learning, Financial Awareness, Affective and Cognitive

Dependent variable: Investment Behavior

Regression model-R Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
	.452	.205	.171	.28871	.205	105	4	95	.000	1.418

Table: 28 Regression model-Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.616	.426		141	.000
Social Learning	-.054	.109	-.093	-.497	.620
Financial Awareness	-.015	.111	-.025	-.135	.893
Affective	.320	.088	.342	3.635	.000
Cognitive	.093	.034	.250	2.725	.008

Results indicates that social learning, financial awareness, affective and the cognitive components can explain 17.10% of the variance in the stock market investor behavior (Adjusted R Square=0.171). Affective and Cognitive are the values that have significance less than 0.05. Social learning and financial awareness have insignificant (negative) impact on investment behavior whereas affective and cognitive have significant (positive) impact on the same. Overall regression model is significant at the 95% confidence interval level.

Independent variable: Investment Awareness and Perceived Risk Attitude

Dependent variable: Investor Behavior

Regression model (R Square)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
	.427 ^a	.182	.165	.28967	.182	10.816	2	97	.000	1.362

Regression model (Coefficient)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	3.011	.376		7.997	.000
	Investor Awareness	-.098	.064	-.142	-1.540	.127
	Perceived Risk Attitude	.301	.070	.395	4.292	.000

The above regression model shows an acceptable fit of adjusted R Square (0.165). Adjusted R Square (0.165) indicates that investor awareness, perceived risk attitude can predict behavior by 15%. Perceived risk attitude is a better determinant (0.395) than the investor awareness (-0.142). The implication is that the level of awareness, that is, the knowledge and information has negative impact on particular company stock/about the stock market, that is more knowledge and information will refrain the investors to buy new shares and perceived risk attitude greatly influence investment behavior positively that means higher they possess positive information on stock market risk more likely to invest in the same. So, we can conclude that investor's attitude is not reflected in their investment decisions.

15.0 Conclusion

This research focused on the attitude of investors toward stock market risk from three broad perspectives like awareness, perceived risk attitude and behavior pattern. Investors in Chittagong Stock Exchange do not behave according to their knowledge and information. Most of the investors follow the advices and suggestions of their peers and seldom apply their own knowledge. They do not apply fundamental knowledge to buy and sell shares. Majority investors do not stay in this market with capital for long time as they treat this market as a platform to make money in fortnight and behave irrationally. Their behavior makes the market unstable and volatile. Social learning and financial awareness are lacking among the investors. They are required to be oriented and familiarized with stock market mechanism and other related issues on regular basis. Although investors can map out the capacity of service providers, they need to depend on them (service providers) as market is inefficient and do not follow random walk

always. Experts cannot apply various models and techniques to predict market movement like developed and efficient markets. There is absence of law and order in the stock market. Every year culprits are traced but go unpunished using the loopholes of the existing law. We cannot think of any efficient and perfect market unless investors are aware, conscious, educated and take investment decision on logical ground.

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