

The Allusions of Behavioral Finance

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Abstract

The deliberation in theoretical finance among the Efficient Market Hypothesis (EMH) and the subject of the behavioral finance is of immense interest. From the time when it emerged, the EMH has been the most significant theory which describes the behavior of the diverse agents in the financial markets and overlooks more or less any prospective impact of human behavior in the investment method. From the end of 1970s and the commencement of 1980s, a rising number of researchers and scholars showed the irregularity of this theory. The anomalies of the recent portfolio models and theories have provoked the development of behavioral finance. Behavioral finance assimilates psychology and economics in finance theory and has its heredity in the ground-breaking work of great psychologists Tversky and Daniel Kahneman (1979). The rationale of this study is to present a synthesis of the behavioral finance literature over the last two decades.

Keywords: Efficient Market Hypothesis, Financial Market, arbitrage, Cognitive dissonance, Regret avoidance

Type: Literature Review

1. Introduction

Efficient Market Hypothesis established by Markowitz in 1952 and afterwards named by Fama in 1970 presumed that financial markets incorporate all available information and affirms that share prices reveal all relevant information.

In spite of the importance of Efficient Market Hypothesis in finance, it seems that there is still increasing facts regarding presence of considerable anomalies in financial markets. It suggests that the basic principles of rational behaviour underpinning the Efficient Market Hypothesis may, in fact, be inconsistent. Therefore some have started looking towards other elements present in financial markets including human behaviour.

The hypothesis underlying modern portfolio theory has been shown to be conflicting with investor behaviour. The anomalies present in modern portfolio models have provoked the growth of behavioural finance.

The behavioural finance literature can be divided into two main parts: discovering anomalies in the efficient market hypothesis that behavioural models possibly explain (Thaler and DeBondt, 1985) and the identification of individual investor behaviours that conflicts with classical economic theories of rational behaviour (Odean, 1999).

Behavioural finance therefore challenges the efficient markets perception and focuses upon ways investors interpret and proceed upon information generously available to them. It helps us better in knowing the investors' behaviour and real market practices. It is consequently can facilitate investors to make better investment decisions in the extremely complex and complicated financial markets.

Swell (2001) states that behavioural finance is the study of the influence of psychology on the behaviour of financial experts/investors and the succeeding effects on markets. He has explained that behavioural finance confronted the theory of market efficiency by providing insight into why and how market could be inefficient because of irrationality of human behaviour.

Behavioral scientists Thaler and Barberis (2003) have portrayed the path of behavioural research as follows: —We have now commenced the essential job of trying to understand and comprehend how investors including layperson and professionals, decide about their portfolios choices. Until now such studies was particularly absent from the range of financial economists, possibly because of the erroneous belief that asset pricing can be modelled without getting knowledge about the behaviour of the driving forces in the economy.

This paper therefore consider the question: What can we discover from behavioural finance? To embark upon this question, the paper reviews in two sections. In the first section, we talk about the efficient market hypothesis theory and then describes the prospect theory. In the second section, we will discuss the various psychological and sociological principles that comprised the foundation of the behavioural finance.

2. The efficient market hypothesis (EMH): basis and confines

Standard finance is based on the knowledge built with the support of the portfolio principles of Markowitz, the arbitrage theory of Modigliani and Miller, the option-pricing theory, the capital asset pricing model, (Statman, 1999). The efficient market hypothesis is the most well-known financial theory.

2.1. Basis of the Efficient Market Hypothesis

Finance is the part of knowledge constructed on the pillar of the arbitrage philosophy of Modigliani and Miller, the capital asset pricing theory, the portfolio principles of Markowitz and the option-pricing theory. The efficient market hypothesis is the most famous financial theory.

2.2. Foundation of the efficient market hypothesis

Hypothetically, Efficient Market Hypothesis is based on three fundamental assumptions.

1. Market players are completely rational and are capable to calculate the value securities rationally, that means rational investors price each security for its basic value that is defined by the net present value of its prospect cash flows discounted by a risk factor. This entails that the security value completely reflects all the accessible information and consequently during prices formation all the pertinent information is valued appropriately.
2. Still if there are several investors who are not rational, their trading behavior will either cancel out with one another or would be arbitrated away by rational investors (Shleifer, 2000).
3. Market players have properly identified subjective utility functions that they will get the most out of. According to Simon (1983), the assumptions underlying the subjective expected theory are:

- Decision maker has well-defined utility meaning that can be assigned some cardinal number to reflect the achievable future actions;
- The decision maker has well-defined set of options to pick from;
- The decision maker is capable to dispense a reliable joint probability distribution to all prospect events;
- The decision maker will exploit the expected value of from utility function.

2.3. Confines of the efficient market hypothesis

2.3.1. The bounded rationality

Riepe and Kahneman (1998) discover that investors' divergences from the saying of economic rationality are persistent and organized.

It is argues that rational efficient markets are not constant with observed findings on abnormal stock returns for stocks among high existing earnings yields, short-term price momentum, high book-to-price ratios, long-term reversal and undue price instability. In actuality, when uncertainty and risk or incomplete information about alternative or elevated level of complications are established, investors might behave somewhat different from rationality. According to Rubinstein (2001), this is called the minimal rationality or bounded rationality. Investors are likely to diverge from rationality due to their stance toward risk and to their tenderness of choices making to the frame of troubles.

When investors relate the model of bounded rationality to stock market, they can adjust the hypothetically elegant Efficient Market Hypothesis to turn into extra practical and rational. Furthermore, According to Tseng (2006) indicate that bounded rationality is not irrationality. In other words market accomplices generally are bounded rational but not essentially irrational.

According to Conlisk (1995), bounded rationality is extremely important empirically because there are large number of experiments in which investors display intransitivity; misinterpret statistical independence; faulty random data for patterned data; fail to give significance to the law of large number effects; fail to identify statistical superiority; miscalculate in updating probabilities on the basis of fresh information; minimize the consequence of given sample size; make bogus suppositions about causality; use irrelevant information; overstate the significance of vibrant over pallid facts; exaggerate the significance of imperfect predictors; display conceit in judgment over evidence; amplify confirming over disconfirming evidence in relation to preliminary beliefs; do superfluous and confusing tests to substantiate hypothesis at the cost of crucial tests to disconfirm; make persistent mistakes in deductive; be unsuccessful to discount the future constantly.

Laibson and Gabaix (2000) have constructed and tested a bounded rational decision algorithm that could build quantitative behavioral predictions and is mostly applicable, and empirically testable. Obtained data devastatingly refuse the rational model. When affect and emotion are taken into consideration, investor behaviour may often turn from bounded rationality to irrationality.

Shiller (2001) explained the irrational behaviours of market members in his book that was published just ahead of the serious market collapse, mainly the technology stocks, since the Great Depression. Shiller identified twelve main factors, such as the triumphalism and the decline of overseas monetary rivals, influx of the Internet, baby boom and its apparent effects on the market, capital gain tax cuts, the rapid growing mutual funds, cultural changes favoring business accomplishments, extra discount brokers and day traders, confident forecasts, growing pension contribution, disinflation, and rising gambling chances all contributing to the irrational excitement of the most current bull market from August 1982 to near of beginning 2000.

2.3.2. The restricted arbitrage

According to Vishny and Shleifer, 1997, Shleifer, 2000 with reference to the second base of arbitrage possibility underlying Efficiency Market Hypothesis, the actual world arbitrage is not merely risky but as well restricted.

According to Hoje Jo and Dong Man Kim, 2008 numerous authors demonstrated that in a market where rational and irrational investors act together, irrationality can have a significant and long-lived impact on prices. Theory

of limited arbitrage holds that, if irrational investors cause variations from elementary values, rational investors will be helpless to do anything regarding it. Behavioral finance considers that deviations from basic value are caused by the existence of traders who are not entirely rational. The proof of mispricing is support of limited arbitrage that is why the value of the share modifies although its basic value does not.

Vishny and Shleifer (1997) argue that arbitrage might be limited because it is expensive, specifically when it would be constructive in removing pricing inefficiencies. For example, as of marking-to-market, arbitrageurs possibly will need more and more resources as prices deviate more and more from their efficient values. According to Daniel et al. (2001) who argue that owing to risk aversion, arbitrageurs could not be capable to get rid of all systematic mispricing.

It is argue that when stock prices maneuver fundamentals by upsetting irrational agents, business investment be able to earn bigger projected profits than rational ones. It takes place because irrational investors take decisions on emotion consecutively. Investors who keep on feelings take advantage from late arriving irrationals who drive prices in the same track as the early ones. If private information is noisy, it can result in circumstances where the irrationals as a group outperforms the rationales in terms of average profits.

2.3.3. The confines of the subjective utility function: The base of the prospect theory

As we already discussed, the utility theory presents a demonstration of fairly rational behavior underneath certainty. Though, in spite of the apparent attractiveness of this theory, it has long been acknowledged that the theory has scientifically unsuccessful to envisage human behavior, at least in certain situations.

The non-expected utility hypothesis tries to accomplish a improved job of matching the experimental evidence. Some of the best known models are: Weighted-utility theory (Chew 1983, MacCrimmon and Chew 1979,); Disappointment Aversion (Gul, 1991); Implicit expected utility (Dekel 1986, Chew 1989); Loomes and Sugden, 1982' Regret Theory (Bell, 1982; and Rank-Dependent Utility Theories (Segal 1987, 1989, Yaari 1987, Quiggin 1982,). Along with all the non-expected utility hypothesis, prospect theory is a arithmetically devise alternate to the hypothesis of expected utility maximization and might be the mainly capable for financial applications.

2.3.3.1. The prospect theory

Prospect theory has been built up by the psychologists Daniel Kahneman and Amos Tversky in 1979 who demonstrated how traders systematically go against the utility theory. When traders were asked to decide among a lottery offering a 25% possibility of winning 3,000 and a lottery offering a 20% possibility of winning 4,000, 65% of the respondents prefer the later (20%; 4,000). On the other hands when they were asked to opt between a 100% probability of winning 3,000 and an 80% likelihood of winning 4,000, 80% chose the previous (100%, 3,000). while expected utility theory forecasts that persons should not choose in a different way in these two cases (because the second alternative is the identical as the first be expecting that all likelihoods are multiplied by the identical constant), the prospect theory propose that the investors have inclination for certain outcomes, this is what we describe certainty effect.

Another base of the prospect theory is the value function. According to Tversky and Kahneman (1979), the value function varies from the utility function in expected utility theory because of a reference point that is determined by the subjective thoughts of investors. In the expected utility theory utility function is concave downward for all levels of wealth whereas according to the value function, the slope of the utility function is upward sloping for wealth levels below the reference point and downward sloping for wealth levels subsequent to the reference position. The reference point is decided by every investor as a point of comparison.

2.3.3.2. The confines of the subjective utility function

For traders generating process of substitute is difficult and complicated specified the facts that numerous factors both global and domestic might impact stock prices and few of these factors can modify promptly. Due to short time available for decision making, it is doubtful to acquire a complete set of options as understood in subjective expected utility theory.

In addition, with the elevated level of uncertainty and difficulty of the potential conditions, it is unfeasible for any decision maker to have a reliable joint probability distribution of all prospect proceedings. As an alternative, decision maker might approximate some probability distributions with not assuming the information of probabilities. If both options and probability distributions concerning the prospect events are uncertain, the decision makers are doubtful to have a distinct utility function as formerly assumed and impossible to maximize a not well defined utility function. The restrictions of human cognitive ability to find out alternatives, calculating outcomes and making comparisons may perhaps lead the decision maker to reconcile for various satisfying approach (Simon, 1982).

3. Behavioral Finance

Behavioral finance is a new rising science which studies the irrational behavior of the investors. According to the behavioural experts, investors do not perform perfectly as the classical school tells us. Weber (1999) put the following observation: Behavioral Finance narrowly combines investor behaviour and market phenomenon and

employs the knowledge obtained from both the psychological field and financial theory. Behavioral finance tries to recognize the behavioural biases frequently showed by investors and also gives strategies to overcome them. According to the surveys carried out in early 1980s to 2002, psychology may be of particular interest to finance experts because it is the basis of irrationality that leads to the hub of behavioural finance.

Behavioral finance is a recent paradigm of finance, which aims to supplement the contemporary theories of finance by bringing in behavioural sides to the decision making process. It focuses on the functions of psychological and economic principles for the betterment of financial decision-making (Olsen, 1998). There have been a numbers of studies which indicate towards market anomalies that cannot be clarified with the help of standard financial theory i.e. unusual price movement in association with IPOs, mergers and stock splits. These anomalies propose that the fundamental principles of rational behavior underlying the efficient market hypothesis are not utterly correct and there is a need to look at other models of human behaviour that has already been studied in other social science disciplines (Shiller, 1998). Human decisions are mainly based on cognitive illusion. These illusions can be grouped into two: the illusions recognized within the prospect theory, and the illusions identified in the heuristic decision process.

3.1. The prospect theory: the different bias

This theory is developed by Tversky and Kahneman (1979), identify a collection of illusions that might impact the decision process. Below we will talk about the following states of mind which can control investor decision making process: the mental accounting, the loss aversion, the self control, the cognitive dissonance and the regret avoidance.

3.1.1. Mental Accounting

Behavioral scientists have established that investors have multiple approaches regarding risk. For some investors risk tolerance might be low and for some risk tolerance could be high. For example a lot of people have a domestic budget for foodstuff and a household budget for entertaining.

Statman (2002) examine that people are inclined to compartmentalize the assets they use for downside fortification from the assets that are use for upside potential. In the aged ways, numerous people kept their money for furniture, groceries, rent, and so on, in separate pots. Today, they have the same mental accounting attitude to various groups of assets.

Whereas conventional investment theory advocates that allocation should be recognized for an investor's entire portfolio and the risk should be managed at the total portfolio level. Behavioral finance has revealed that every investment strategy is connected with an objective and administered according to the risk measures strategies and risk tolerance that are appropriate for that purpose (Brunel, 2003).

Brunel (2003) proposed a framework in which investment strategies are harmonized to "buckets" dispense to four basic objectives: income, liquidity and growth and capital preservation.

The mental accounting possibly will helpful to elucidate the "January effect" glitch. It is observed in different countries that prices in the stock markets are inclined to rise in January more than the usual. This effect might be linked with the fact that investors in January can see the new coming year as the commencement of a new time and consequently they could be leaning to act differently from that what went before.

3.1.2. Loss aversion

Behavioral finance believes that investors are not risk-averse but lose-averse. Huang and Barberis (2001) have endeavored to incorporate the trend of loss aversion into utility functions. Loss aversion refers to the concept that investors experience larger disutility from a capital loss than the utility from the same capital gain in absolute terms. Therefore, investors will augment their risk that is defined in terms of ambiguity to avoid even the negligible possibility of loss. An example regarding an hypothesis about preferences is that investors are loss averse: a \$2 profit might make them feel better by as much as a \$1 loss make them feel worse.

Tversky (2001), people do not hate uncertainty but rather they hate losing. Therefore, according to modern portfolio theory, the hypothesis that investors are at all times risk-averse is not accurate. Loss aversion implies that risk management should overtly think about the risk of loss. Actions for the risk of loss might confine the possibility that a loss will take place, the severity of loss, or both.

Han and Grinblatt (2005) argue that loss aversion can help in explaining momentum. Particularly, past frontrunners have extra selling pressure and past losers are not ignored as rapidly as they should be, and this causes under reaction to public information. In equilibrium past winners are underestimated and past losers are overestimated. This generates momentum as the misvaluation undo over time.

Shumway and Coval (2005) illustrates that proprietary investors in Chicago Board of Trade exchange take extra risk late in the day to wrap their losses in the commencement of the day. This entails loss averse behavior. Prices are affected by this behavior in a way that they are ready to buy stocks at high prices and vice versa than those that exists earlier.

3.1.3. Self control, Cognitive dissonance and Regret avoidance

3.1.3.1. Self Control

(Sheffrin, and Thaler 1981) explained that Self control consists of special accounts that considered off-limits to

expenditures urges. It is reported that the unwillingness to understand losses constitutes a self-control trouble. For example, investors, particularly retirees who finance their living expenditures from their existing portfolios, are anxious about spending their wealth too rapidly, in that way which outlives their resources. (Glick, 1957)

3.1.3.2. Cognitive dissonance

The theory drawn from psychology that suggest that human beings make use of self- defense method when faced with information that disagree with their viewpoints in order to protect them from the fact of being erroneous. This method involves scientifically evading information that says the opposite to our beliefs dissonant information. When this is not doable, human will attempt to downplay the significance of this news to dishonor the source. At the same time, they will aggressively look for a source of information that is in agreement with their own beliefs and once information is in line with viewpoints in the form of consonant information, the need to look for information lessen.

It is pointed out that human tend to evaluate heavily on most important, unforgettable, or vibrant evidence even if they have improved information (Rabin, 1998). Once strong assumption is formed, human are regularly distracted to new information opposing their hypotheses, and they often misapprehend the fresh evidence as added support for their early hypotheses.

3.1.3.3. Regret avoidance

Regret avoidance is the inclination to keep away from actions that might produce distress over earlier decisions, although those measures might be in the individual's interest. Scholars have argued that one of the causes that investors are disinclined to sell losing positions is because by doing so is to confess a wrong decision. This unwillingness can be associated together with regret avoidance and belief perseverance. To avoid the anxiety coupled with admitting a fault, the investor seized onto the trailing position and hopes for a revival.

3.2. The heuristic decision process

The heuristic decision process is the process in which the investors discover things out for themselves, more often by trial and error that leads to the growth of rules of thumb. It refers to rules of thumb that people use to formulate decisions in difficult and uncertain conditions. The investors have together the pertinent information in which the psychological and emotional factors are mixed up and are complicated to disconnect. It contains overconfidence and self- attribution, belief perseverance, recency bias, representativeness and availability, endowment effect, overreaction and conservatism, and the herd behavior.

3.2.1. Overconfidence and Self attribution

Overconfidence implies that investors overvalue their ability to forecast market actions, and due to this overconfidence they frequently take risks without getting appropriate returns.

Daniel et al. (2001) tries to explain patterns in stock returns using overconfidence and self-attribution. Overconfidence regarding private signals cause over reaction and therefore phenomenon like the market effect and long-run reversals while self-attribution upholds overconfidence and permit prices to carry on overreacting that generates momentum. In case of long-run there is setback as prices revert to basics.

Behavioral scientists Odean and Barber (2000) carry out a study over 78,000 investors in a brokerage firm. They accomplished that investors who has common stocks pay a penalty for active trading. They separated the investors in five groups according to the frequency of trading and demonstrated that the yearly return for the group that traded most regularly was about 6% less, following transaction costs, than the return for the group who traded in smallest quantity. According to them, the bad performance is a consequence of the elevated level of investment that can be elucidated by the behavioral prejudice of over-confidence of individual investors that leads to unnecessary trading.

Montier (2004) also focuses upon confidence and over optimism, the tendency to deliberately look for information that agrees with you, the problem of judging events by how they appear rather than how likely they are, and human limitations in recalling information.

Odean (2001) properly model self-attribution bias in an active setting with knowledge, and illustrate that if this bias is rigorous, it might avert finitely-lived instrument from ever learning regarding his true capability.

Xiong and BScheinkman (2003) examine the relation of overconfidence and short sale constraints. According to them investors with positive information can attracted to purchase overvalued assets because they consider they can trade that asset to investors with even more tremendous beliefs. With short-sale constraints, negative feeling is sluggish to find into prices, and this may lead to asset pricing bubbles.

Welch and Bernardo (2001) explain that overconfidence in a financial system is advantageous because enlarged risk taking by overconfident investors helps the appearance of entrepreneurs who develop new ideas.

It is find that investors are inclined to overvalue their ability, idealistically confident about future actions, too positively on self-evaluations, over-weight attention for receiving information that is constant with their existing viewpoint, and miscalculate the accuracy of their own classified information.

Nutt and Easterwood (1999) explain that even expert under-react to mainly negative information and overreact to most positive information. Karceski, Lakonishok and Chan, (2000) lent support to the behavioral hypothesis and against the rational asset pricing hypothesis stands on their work for the era from 1984 to 1998.

3.2.2. Belief perseverance

Belief perseverance portrays the general human inclination to rely with a great deal, or anchor, on one attribute or part of information when making decisions. When new information is presented, the investors have a propensity to be slow to change. Anchoring point out that investors are unlikely to alter their opinions even when new information becomes accessible (Lepper, Lord and Ross 1979). Barberis and Thaler (2002) argues that at least two effects become visible to be at work. First, investors are unwilling to look for evidence that disagree with their beliefs. Second, if they find evidence, they treat it with unnecessary skepticism.

3.2.3. Recency bias

Recency bias is the inclination of people that provide large importance on more fresh data. An enormous instance of recency bias has mentioned in a study carried out by economics professor Robert Shiller teaching at Yale University. In 1980s Japanese bull market, he found that 14% of Japanese investors predicted a crash. After the crash, 32 % investors said they anticipated a crash. This entirely illustrates the inclination of investors to become optimistic as the market goes up and pessimistic when it goes down. And it's this inclination that makes large numbers of investors to constantly buy high and sell low.

Tversky and Kahneman (1973) find that investors usually predict future unsure events by focusing on current history and pay low consideration to the likelihood that such small history could be produced by chance.

3.2.4. Representativeness and Availability

Kahneman and Tversky (1974) demonstrated that people while shaping subjective judgment are inclined to classify the events as typical or representative of a well-known group. It is defined as dependence on the stereotypes. This heuristic may direct people to judge the stock market alteration as bull or bear market without valuing the probability that sequences same sign price changes occur infrequently. In the similar way it might lead the investors to be more optimists regarding the past winners and more pessimists on the past loser.

Another significant heuristic is the availability. According to Kahneman and Tversky (1974), it influences investors in the circumstances in which investors evaluate the occurrence of class of an event by the easiness with which occurrences can be brought to mind. We may say that it leads investors to offer a higher weight to the actions that are easily remembered.

3.2.5. Endowment effect

The endowment effect implies that investors place a elevated value on something they already possess and they would be ready to pay to obtain it. The consequences of this approach can be devastating, prompting investors to grasp stocks longer period of time after they have exceeds any rational estimation of fair value and placing them at risk for considerable loss when the foreseeable rectification occurs.

3.2.6. Overreaction and conservatism

Overreaction propose that investors are excessively influenced by unsystematic occurrences. Ritter (2003), Conservatism implies that when things transform, investors tend to be slow to choose on the changes. When things alter, investors might under react due to conservatism bias. But if there is a long pattern, they will adjust to it and maybe over react, underweighting the long term average.

Thaler and De Bondt (1985, 1987) find that investors over react to drastic and unanticipated events. They discover that portfolios of previous losers outperform that of previous winners in the long run. As investors calculate on the representative heuristic, they turn out to be optimistic regarding recent winners and pessimistic about recent losers.

Barberis (1998) states that extrapolation from arbitrary sequences, wherein investors expect patterns in little samples to continue, build overreaction whereas conservatism creates momentum through under reaction.

Stein and Hong (1999) suggest that steady dispersal of news cause momentum, and feedback investors who buy based on past returns cause overreaction because they points the actions of precedent momentum traders to news and thus end up purchasing too much stock, which, what time conditions are reversed, creates momentum.

3.2.7. Herd Behavior

Investors are influenced by social atmosphere and they frequently feel pressure to be traditional. A basic observation concerning the human society is that people who converse and communicate frequently with one another reflect similarities. One reason is that people's findings are alike at similar times is that they are responding to the similar information. The societal influence has an enormous power on person judgment. When people are confronted with the judgment of a other large group of people, they are likely to change their erroneous decisions. They just believe that all the other people might not be wrong. In daily living it has learned that when a large group of people is agreed in its judgments they are positively right (Shiller, 2000).

Herd behavior could be the most recognized observation on financial markets in a psychological situation. Even rational investors can contribute in herd behavior when they take into account the judgments of others, and even if they are familiar with that everybody is acting in a herd like manner. An important factor to herding is the word of mouth. People by and large relatives, trust friends and colleagues more than they do the media. It is therefore probable that news about a buying opportunity will quickly spread. Pound and Shiller (1986) show that if people read a lot, their attention and actions emerge to be more inspired by interpersonal communications.

Hong (2005) argue that mutual fund managers are likely to buy stocks that other managers in the same city are buying, signifying that one aspect impacting portfolio decisions is a word-of-mouth outcome of social contacts between money managers. The researchers also propose that stock market contribution is influenced by social interaction. For example, investors that are more social are more likely to invest in the stock market.

4. Conclusion and direction for future research

This study has pointed out that the real financial markets are inclined to diverge from the three fundamental assumptions underlying the conventional efficient market hypothesis. Herbert Simon has played path-breaking role by relating bounded rationality to economic investigation and models. Afterward, Tversky and Daniel Kahneman applied the prospect theory to financial markets, economics and have contributed in the quick development of behavioral finances in the last two decades. The behavioral finance has contributed to the improved understanding of investors' behavior and actual market practices over the past 20 years and is probable to make considerable progress. These theories have contributed to assist investors to make improved investment decisions in the very multifaceted and complicated financial markets.

The appearance of the field of the behavioral finance has also led to a thoughtful extension of knowledge regarding financial markets. The fast development in the field of behavioral finance is expected to perk up the competence and analytical power of investors and the whole financial markets in the future. Since behavioral finance is at initial stage of development, more theoretical investigations and empirical testing are desirable. This would be the direction for future research. Particularly the literature might shed detailed light on factors that are biased and whose biases influence prices. There is also an opportunity to examining and analyzing the rapidly-growing field of market micro structure and behavioral finance. For instance, a middle role played by financial markets is that of price detection. What is the consequence of cognitive biases of market creators on price pattern? The impact of documented biases that is overconfidence and the disposition effect on market agents and the associated implications for business costs would appear to be a good topic for research.

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