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BEHAVIORAL FINANCE or EFFICIENT MARKET HYPOTHESIS?

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ABSTRACT

Behavioral Finance and Efficient Market Hypothesis have different kinds of perceptions of the financial literature. While the efficient market hypothesis supports that people are rational investors who are important part of financial market. Behavioral finance which is alternative model accepts people as normal and irrational. When efficient market hypothesis is considered, the assumption is that the price of stock market will reach equilibrium since prices are informationally efficient. However, behavioral finance claim that investors tend to have some psychological and emotional biases which lead to irrationality. Both new and old concepts try to find solution for ecomomic and financial problems. Therefore, assumptions and research for these two different models play an essential role to understand and prevent financial crises. Otherwise, it will be hard to solve the underlying problem of economic and financial crises. Therefore, Behavioral Finance and Efficient Market Hypothesis which play an essential role in every branch of finance will be compared.

1. INTRODUCTION

In the past, finance specialists and academic environments believed assumptions of efficient market hypothesis. They accepted that financial markets are informationally efficient and reaction of stock prices depend on new information since the news about market spreads quickly. In the meanwhile, it is believed that investors are rational people in all conditions.

According to Efficient Market Hypothesis investors are not rational, prices will not be affected because prices are rondom. However, related assumptions started not to be enough in order to understand why financial market has fluctuation and crises. Therefore, behavioral finance gain popularity. For this reason, Academic environments and others started to emphasized psychological and behavioral elements of stock-price determination. In these days, efficient market hypothesis and behavioral finance are examied in order to understand well. Therefore, this paper will examine both theories because it is believed that this topic will be beneficial for finance literature.

2. LİTERATURE REVİEW

In this part, literature review will be reached about two basic investment theories in terms of efficient market and behavioral finance.

2.1. Efficient Market Hypothesis

In efficient market, prices reflect all available information and news. In other words, if information that is provided does not enable investors much more returns, the market is efficient (Fama,1970, p.383).

There are three factors for efficient capital markets. The first one is operational efficiency. Provided that market makers do not earn economically owing to operational costs, market has operational efficiency Operation efficacies refers to buy and sell securities at lowest costs. Second factor is allocational efficiency which refers to return same level of the available

investment. The last one is informational efficiency. Informational efficiency refers that current prices reacts to all information (Kıyılar, 1997, pp:8-9).

In the efficient market, prices are balanced by depending on negative or positive information. Balance of price has speed and this determines market efficiency. There is price equilibrium under the strong form efficiency. Otherwise, the market does not have efficiency (Özçam, 1996, p.115).

Followings are some requirements about market efficiency (Kıyılar, 1997, pp:9-10);

- ✓ Participants of market should reach whole information without cost.
- ✓ There is no cost to operation in the market.
- ✓ There are a lot of investors in the market, However, non of them can have effect on market.
- ✓ Participants are rational investors.
- ✓ All assets are divisable in the market.

However, investors can not reach information without cost because of cost of data and tax responsibility.

Efficient market hypothesis which is based on rondom walk model denies technical analysis because rondom walk model supports current price is not reliable indicator for future. This perception indicates that historical chart of prices can not help investors with estimating future prices (Dimson ve Mussavian, 1998, p.93).

According to Fama (1965), market efficiency is distinguished in three different forms that is weak form, semi-strong form and strong form of efficient market hypothesis.

Stock price and volume are main information for weak form. Weak form efficient market hypothesis defends that past price movements are integrated in current price of securities. It means that investment decision is determined by depending on past prices (Tezcanlı, 1996, p.22).

According to weak form, technical analysis can not be used for future prediction and it does not enable investors to have higher returns (Ross and others., 1996, p.338). However, weak form may be examined by rondom walk theory.

According to semi-strong form, past prices and publicly available information have effects on price formation. For this reason, investors can not possess competative advantage via using public information and past price. On the other hand, semi-strong form may be examined by price / return rate, effect of firm size(Reilly and Brown, 2002, p.183).

According to the strong form, all information affect the asset value. For this reason, nobody can benefit from private information. It is easy to reach all information easily. Also Strong form contains semi-strong form since strong form publicly available and private information (Karan, 2001, p.269).

To sum up, information contain in past prices under weak form, information refers to all publicly available information under semi-strong form and all information affect the assets value under strong form of efficient form. Theree different forms are shown in figure 1 below.

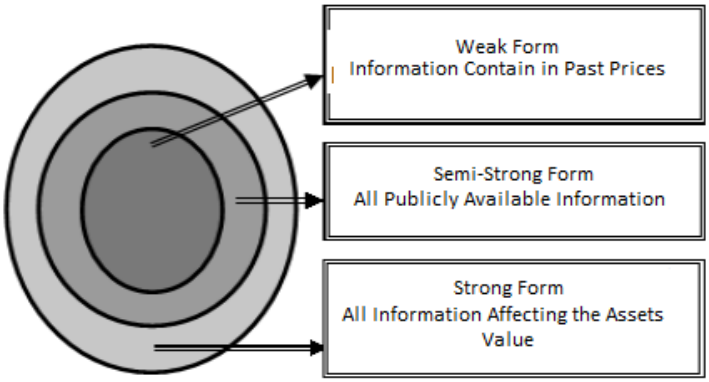

Figure 1. Relationship Among Three Different Forms

Mehmet Baha KARAN, Yatırım Analizi ve Portföy Yönetimi, Gazi Kitabevi, Ankara, 2001, p. 26

Fama (1965) examined thirty stocks which were traded in the Dowe Jones Index. After autocorrealtion tests, the result is that American stock prices supported rondom walk theory.

Poterba and Summers (1987), Cham, Gup and Pan (1992) found that the markets they examined are semi-strong via using unit root test and variance ratio.

Andor, Ormos and Szabo (1999) found Hungarian market is not weak form efficient market according correlation tests and run tests that were applied between 1991-1999 years.

Panagiotidis (2004) tried to test effects of Euro on Greek market efficiency via GARCH model. It is found that Greek market is opposite of rondom walk model.

Samuelson (1965) declared a formal economic argument for "efficient market" and indicate market efficiency by using martingale process instead of random walk model.

Barkoulas and others (2000) concentrate on weekly data at Greek Market between 1981 and 1990 in order to confirm weak form market efficiency. They conclueded Greek market is opposite of weak form.

Balaban (1995) tested Borsa İstanbul by using Daily data between 1988 and 1994. He concluded that Borsa İstanbul was not efficent.

Assaf (2007) investigated four different markets in terms of Morocco, Egyp, Jordan and Turkey between 1997 and 2002. He conclueded that these markets were not efficient market by using semi parametric tests.

2.2. Behavioral Finance

Traditional Finance theories accept that investors are rational people and market is efficient. However, from the past to the present, some of the financial environment have started to believe investors can be irratonal. Economic crises and price fluctuations have led them to have question '' Are Investors Irrational ''

So that , behavioral finance has been well known topic and it has been investigated by financial environment. According to Shefrin (2000), behavioral finance refers the study of psychological effects on financial decision making and market. Also he indicates that behavioral finance is interaction between financial activity and psychology.

Assumption of efficient market hyphotesis supports that whole inverstors reach all available information and news at the same time. This assumption is also accepted by behavioral finance. However, behavioral finance claims that investors make investment decision by commenting on information and news according to themselves. People understand news and information differently due to different experience, culture, judgment, needs and effects of emotion. Hence importance of perception comes into Picture(Tufan, 2008, p.46).

Behavioral finance focused on limited cognitive person instead of cognitive person. Furthermore, it proved when limited cognitive person makes investment decision, they are affected by psychologic bias via huge amount of research. Psychologic bias are divided into cognitive, heuristics and emotional factors(Yalçınkaya, 2004, pp: 12-13).

Well known cognitive heuristics which show why behavioural Finance leads to irrational behaviour are representiveness, anchoring, regret aversion, herding, mental accounting and overconfidence (Micheal, 2006, p.7).

When investors buy some securities, they do not consider long run income for securities because they pay attention to avaraged success of security in that moment. Hence, investors desire to invest in securities that moment instead of investing in securities that have good long term performances (Döm, 2003, p.43). This behavior is good example of representativeness. Therefore, representativeness can be described as people try to avoid uncertainity and they make investment decision by depending on paying attention to situation in recent past. Although this action can be advantage, sometimes it can become disadvantage for investors (Döm, 2003, p.9).

When people need to estimate unknow value, they try to visualize beginning value and then try to adjust this to upward and downward. Beginning point or value can be result of partial calculation or it can be constitute by formulation of problem. However, adjustments are inadequate with both of these actions. In the mean time, different beginning point leads to different trend of beginning value. All of these are accepted as Anchoring heuristic (Kahneman ve Tversky,1974, p.1128). Anchoring heuristic consists of three psychological processes. The first one is reaching and choosing the information. Second one is combining the information. The last one is creating response. Availability of anchoring can affect the reached information (Chapman ve Johnson, 2002, p.126).

Consider the following example. Two groups of high school students were given a multiplication task. The first group was asked to multiply 8x7x6x5x4x3x2 and the second group was given 1x2x3x4x5x6x7x8. While the number of avarage estimation was 2250 for the first group, the second group contained 512 estimations (Kahneman ve Tversky,1974, p.1128).

Regret is the disappointment because of wrong decisions (Kara,2005, p.22). In other words, regret is suffer which is felt when people understood it is too late to change their choice. Regret aversion focus on emotional reaction which is caused by wrong behaviour and decision.

Investors do not close their position (selling stock) when their stocks start to decrease because investors do not want to make loss. On the other side, they are willing to sell their stocks when they start to increse because investors desire to make money quickly. This behaviour is related to avodiance of regret. Furthermore, Investors who do not want to repent of missing the opportunities take more risks and they start to rely on investmen specialists(Yörükoğlu, 2007, p.26).

Traditional finance advocates that when people make investment decision, their behavior are rational and information in the market is efficient. On the other hand, different opinion cites that group psychology weakens relationship between results of information and market (Scharfstein ve Stein, 1990, p.465).

Herding is the behavior of some groups that are imitated by other groups. Herding behavior is coming from information cascade. Information cascade has effect on herding behavior directly or indirectly. Indirect information cascade contains social effects such as common information, structure of choice and common investment strategy. Furthermore, provided that a person believes some peopele's choices are optimal level, he will impliment their

decisions by ignoring his self information. This activity leads to informational cascade which is created by watching some groups behavior (Sushil, Hirshleifer ve Welch, 1992, p.995).

Herding behavior is diveded into two different titles. The first one is rational herding behavior which focuses on external factors that prevents optimal decisions owing to cognitive difficulties. The second one is the irrational herding behavior which focuses on investor psychology (Andrea, 1996, p.604).

The reasons why rational herding behavior occurs are lack of information, fear of reputation and wage levels. The investors accept when their investment decisions are affected by other groups. Rational herding comes up with fluctuations which are caused by initial public offering and merger news (Devenow and Welch, 1996, p. 605).

The reasons why people follow groups are two different points. The first one is cognitive effect which is related to desire of accurate. The second one is and confirmation of group. Furthermore, investors wonder whether group has good information and whether group will confirm investor decision (Güney, 2009, p.54).

The investors have tendcy to put in every investments separate and it provides a basis for thinking every investments separately. In this way, investors start to ignore interaction among the different investments. This mental process can affect the investors's wealth negatively. Firstly, the mantal accounting can lead to disposition bias. Selling the stock that is decreasing close the mental accounting and leads to refret (Nofsinger, 2010, s.60). Furthermore, people have different behaviours on different amount of money because of mental accounting (Pompian, 2006, p.171).

Kahneman and Tversky (1981), two different kind of questions that consisted of two situations were asked to the participants.

Situation A: you reserved ticket at 10$. When you arrived the theater, you understand to lose your ticket. If you have enough money to buy ticket, do you buy the ticket?

Situation B: you decided to go theater and you bought the ticket at 10$. When you arrived the theater, you understood to lose your ticket and you can buy the new one at same price. Do you buy the new one? Economically, two situations are the same. However, the result of experiment is that huge amount of participants prefer to buy the ticket in situation A rather than situation B (Kahneman and Tversky, 1981, p.457)

The reason why participants prefer to buy the ticket in situation A is the mental accounting since participants are classifying '' Theater accounting '' and '' cash accouting ''.

People can tend to overestimate their abilities, knowledge and received information. This tendency can be defined as an overconfidence (Ritter, 2003, p.434).

Psychological findings indicate that investors who have tendancy to be overconfidence estimate their knowledge and underestimate their risks. Thats why, people start to feel that they are more clever than others and they rely on their abilities. To illustrate, findings of research show that 80% of drivers believe that their driving ability are better than avarage of other drivers (Svenson, 1981).

People believe that they have success thanks to their knowledge and abilities or they have failure owing to bad luck and external factors they cant change (Miller and Ross, 1975, p. 213).

Sometimes the investors can be very lucky and they can gain high returns thanks to their good chance. This situation leads to overconfidence and investors start to feel they are experts on stock markets. For this reason, investors are exposed to have dangerous buying and selling possitions and they loose huge amount of money in the stock markets.

Additionally, it is worth indicating that, within the framework of behavioral finance, investment decision is pretty much affected by investors's cognitive biases. Related biases lead investors to have irrational behaviour. As a consequence, behavioral finance which is accepted as a new model of finance literature has helped traditional finance models with developing and it has refuted some opposite consepts via findings.

3. CONCLUSION

Traditional finance theories advocate that all investors are rational and the market is efficient. In case of market efficiency, nobody can get excess profit in the market. Furthermore, available knowledge can be reached by all investors and the knowledge reflected on prices. In 1990s, related approach played essential role on the financial environments.

After the economic abnormality, crisis and depressions, new concept took place and it led to suspicions about traditional concepts. Important studies indicating importance of psychologic factors asserted that investors are not rational and they are normal. Abnormality and economic crisis took place on the stock market since investors behaviors are affected by huge amount of psycholagic factors.

The studies of behavioral finance claim that rationality of human decision making should not be followed blindly instead of rejecting all traditional assumptions. Therefore, it is believed that cognitive and psychologic sides should be investigated while analysing human decision making. There is no doubt that investors are influenced by psychologic and cognitive aspects. Although behavioral finance have popularity in the financial environments, it has no long history. It is obvious that behavioral finance has various models and assumption, however, it can be only accepted as a new suggestion and dimension. In other words, behavioral finance requires numerous studies in order to be accepted as a good theory (Sharma, 2014, p.276).

As a result, the approaches both serve the same purpose in spite of the fact that they possess different assumptions. Therefore, assumptions of behavioral finance and efficient market hyphotesis should be used together in order to understand market and investors. In other words, understanding market and investors will create ground that can help market with being strong against economic crisis.

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