

Theory and Method of Investors' Investment Behavior Deviation

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Abstract This paper mainly wants to solve the problem of cognitive deviation for many investors. How to change such a reality? this paper asserts that there is a need to strengthen the training and correction of investors with relevant learning theory and methods for addressing the deviant investing behaviors, such as training in self-confidence, reducing the interference of harmful factors like anxiety, and calculating the scientific investing steering behaviors.

Key words Investment behavior deviation; Correction; Optimization mechanism

1 Introduction

Deviation shown by investors can basically be divided into cognitive deviation, which is the result of non-rational behavior. The last is operational deviation in investment transactions. Reasons for these deviations are partly due to the cognitive deficits of human beings, and some are due to individual imperfections in knowledge, psychology and methods of operation. It involves the correction of investment deviation and the optimization investment behavior.

At present, the result of behavior deviation correction is not satisfactory, mainly due to the following reasons. The first is the cognitive deviation. People are often opinionated, so they tend to interpret new evidence in the way for the benefit of the original ideas or judgments, which will aggravate psychological deviation. Second, studies show that although people know the true facts, when they meet practical problems, they often relapse. That is when true knowledge is applied in practice, deviations will occur. There is another situation. Although people with excessive self-confidence know their own flaws or limited capacity, in the face of use in the case, they still speculate by mistake. Third, there is a psychological phenomenon, known as irrelevant to history, which weakens the role of learning. The psychological state of irrelevant to history make people do not want to spend too much energy to the research of past experiences. The fourth is the lack of self control. In investment it can not separate various investment activities well. At the same time it is lack of self-strengthening training mechanism about rational investment behavior.

Therefore, for different types of investment behavior deviation, this article will discuss deviation correction and optimization mechanism of behavior.

“Knowledge, belief and behavior” mode is the effective model about the correction of behavior deviation. Knowledge (knowledge and learning) is the foundation. It is also the main way to correct cognitive deviation, namely learning and cultivating relevant knowledge. Belief is the driving force; Behavior (including the promotion of rational behavior, processes to eliminate harmful behavior) is the goal.

Learning is a behavior. In particular it is the important promoting conditions of the development of social behavior. Basic assumptions of behavior correction are: Like the adaptive behavior of people, the non-adaptive behavior of people is also obtained through study.

2 Theoretical Basis of Behavior Correction

The main way to correct behavior is to enrich the investment knowledge by learning, create the right investment philosophy and investment concept, design scientific investment strategy, and adopt efficient investment method and correct the cognitive deviation according to the reasonable investment processes to, eliminate or reduce behavior deviation ensuring efficient and scientific investment process. The vast majority of human learning generation is through four channels: the learning of classic conditions, learning of operating conditions, learning of imitation and cognitive learning.

3 Premise of Investment Deviation Correction

According to “Knowledge, belief and behavior” mode, the second stage of investment behavior correction is the stage of setting up belief and attitude. In this process, the investor needs to form the

evolving investment philosophy, insist the scientific investment idea, explore the reasonable investment strategy, utilizes the effective investment method, finally achieve the investment goal to makes a profit stably in the market.

4. Barrier Types of Investment Behavior

According to the principle of learning theory, the major variables for the classification of behavior deviation are stimulation, actors' capacity and the role of strengthening in the maintenance of behavior.

4.1 The skill lacks

This type of behavior deviation includes the behavior caused by the lack of skills needed to deal with the context efficiently. For example, some investors may never learn how to adopt appropriate investment behavior in the special market environment (such as the collapse). Although we define this kind of deviation as the lacks of the investment skill, but how to rectify is possibly a very complex matter. Because, investors who are lack of investment skill possibly is due to they have not obtained the appropriate social strengthening from the past's investment study. The strengthening they received may be negative or punitive results, which shows that the investor who lack of investment skills often have negative subjective experience and attitudes, such as anxiety, depression and the lack of self-confidence.

4.2 Incentive barriers

This type of behavior deviation include those abnormal behavior caused by the problem of strengthening system. The problem appearing in strengthening system possibly includes: The incentive failure, the irrelevancy of incentive, lack of incentive and incentive conflict.

Incentives failure: In the incentives failure, social stimulation useful for most people can not impact some people's behavior. For these particular investors, attention, support and recognition may not have positive role, and criticism or opposition has not the negative role of strengthening.

Incentive irrelevancy: If the strengthening stimulation attractive to investors is not allowed by the society or harmful, we believe that the behavior deviation of this actor is due to incentive irrelevancy.

Lack of incentives: Above two kinds of incentive barriers aim at individual doer, but the lack of incentive and the following incentive conflict aim at the environment. Lack of incentives means the lack of stimulation to strengthening investment behavior in investor's environment.

Incentive conflict: Many incompatible behaviors is due to environmental paradoxical for strengthening stimulation, which is known as behavioral disorders of incentive conflict.

4.3 Self-strengthening barrier

From a cognitive point of view, the process of human knowledge has to maintain various types of capacity. Therefore, actors themselves have the ability to strengthen their behavior through their cognitive activities. If a person's standard about what is the appropriate action divorced from the reality and can not be achieved, no matter in any situation he could not discover that himself has something which is worth rewarding, no matter how appropriate his performance in fact were. If a person always does not have self-strengthening, he may enter the chronic despondent condition, and subjectively think that he is not useful.

Conducting functional behavior analysis, it is useful to utilize above classification system, although these types of behavior barriers have overlapping areas. In specific investment environment, investors may also show a variety of behavior deviation that would add difficulties to behavioral assessment.

5 Correction Method for Securities Investment Behavior Deviation

5.1 Using systematic desensitization techniques to overcome the anxiety in the investment process

Anxiety mainly means of anxious emotional state or personality caused by some kind of internal conflict. American Psychologist KJ Stallman said: " Once People's feelings are ignored or suppressed, it will produce anxiety, and then continuous manic and depressive." Some philosophers thought: Anxious is the individual's attitude of worry and dread towards its own survival condition. Floyd's psychoanalysis said that anxiety was regarded as one spiritual pathology phenomenon, which was caused by this me with the superego conflict. It causes the patient to have the consequence of the fear, restless, the pain, which must use the corresponding measure to alleviate until anxiety is eliminated. Extreme state of anxiety is usually similar to the eccentric, crazy, depression, neuropathy, and reflected by other "lesions".

Systematic Desensitization is a gradual way to overcome anxiety. Because physical state of relax and psychological state of anxiety are the process of confrontation, physical relaxation achieved through

the relaxations of muscles can inhibit anxiety. If lets investors with the relaxation condition close to stimulation, which could cause the weak anxious mood, as a result of this kind of inhibitory action caused by relaxation to the anxiety, the investor then can endure the anxiety they experiences. After several repeat, the stimulus will lose “effect”, investors will no longer fell anxiety because of it's emergence. Then, give stronger anxiety inducing incentives to investors, such as increasing the amount of each transaction and repeat above process. This method provides the powerful weapon for us to overcome behavior deviation relevant to anxiety in the investment process.

5.2 Self-confidence training

The second method to reduce fear is self-confidence training. In the investment process, we always want to make the most appropriate response to the market, but in fact we are always worried whether the appropriate response is right or not. To consider more, we often fear the response (investment decisions). In fact this is a sign of self-confidence lack. If it is serious, we may carry on the self-confidence training.

Figure 1 explains the relation of self-confidence behavior and other types of behavior. Self-confidence of behavior is showed in many types of behavior, among which the most common behavior type is hostilities (such as the defense of their legitimate right). In the confrontation, some behavior acts beyond the self-confidence. Emotional behavior is another common type of behavior related to self-confidence. In addition, there are still other types of behavior involving self-confidence, such as good faith, gratitude, praise, frank and humorous.

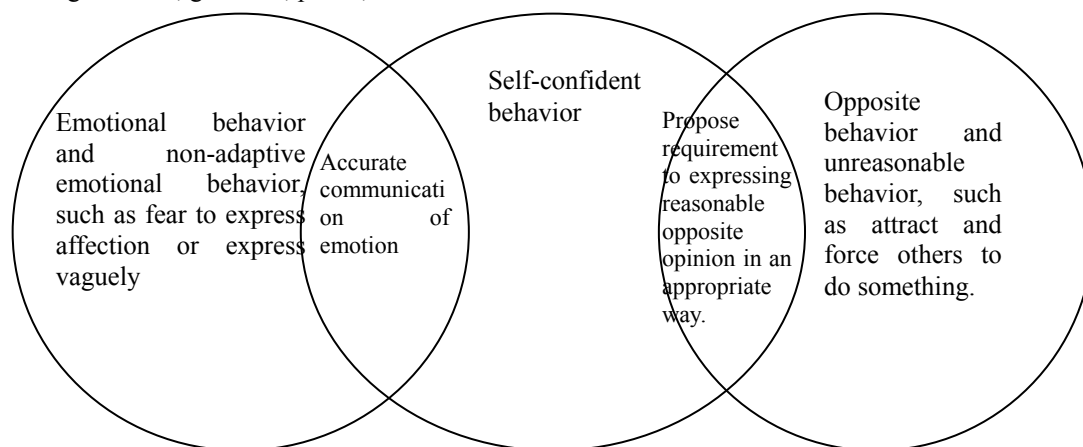


Figure 1 Relationship Between Self-confident Behavior, Opposite Behavior and Emotional Behavior

Before the self-confidence training of investor, the investor must accept the rationality of self-confidence behavior. Self-confidence training generally consists of three basic elements: role-play, imitation, strengthening and instruction.

Role-playing, also known as behavioral practice, is to allow investors to exercise how to make decisions, how to trade in certain specific transactions context.

The imitation technology is used to demonstrate how a more self-confident person will behave in the identical situation. The demonstration usually acts by the successful investor.

The strengthening and the instruction are also undertaken by investor or the teacher with successful investment experience. Strengthening from teacher is very important. The instructor do not only wants to comment investor's investment behavior, moreover he must give suggestion and feedback, and assist investor strengthening the degree of self-confident behavior.

5.3 Using imitation learning to form some excellent habits of investment

Earlier study has described the theory of imitation and the factors to influence the learning outcome of that imitation. Imitative technology is used not only to correct the behavior problems related to anxiety, but also to correct some behavior lacking of sensitivity. Since the study of human beings mainly rely on the study of imitation, in correction process it generally stresses demonstration, tips, and strengthening. So it can quickly establish the right investment behavior and habits being imitated by the investors.

5.4 Use of aversion therapy to reduce the deviation of certain behavior

Aversion technology relate some kind of unpleasant stimuli (such as vinegar) to behavior (such as excessive trading) that the actors think appealing to himself but not meeting the requirements of scientific investment, making investors feel disgust to give up such behavior finally. We can use this method to correct over trading deviation of some investors. That is as long as some investors have cash

in the investment accounts; they can not hold impulse of transactions, until all the money is used up. Actually filled positions operation in the investment process does not apply to all investment periods. Hence we may use one kind of unhappy stimulation to suppress the impulsion of the trade of investor. Once there is transaction impulsion, at first we judge the necessity of this kind of transaction. If it is unnecessary, then we carries on the sanction, such as drinks some vinegar and so on. Practice shows that the effect of this treatment is good. As showed in Figure 2.

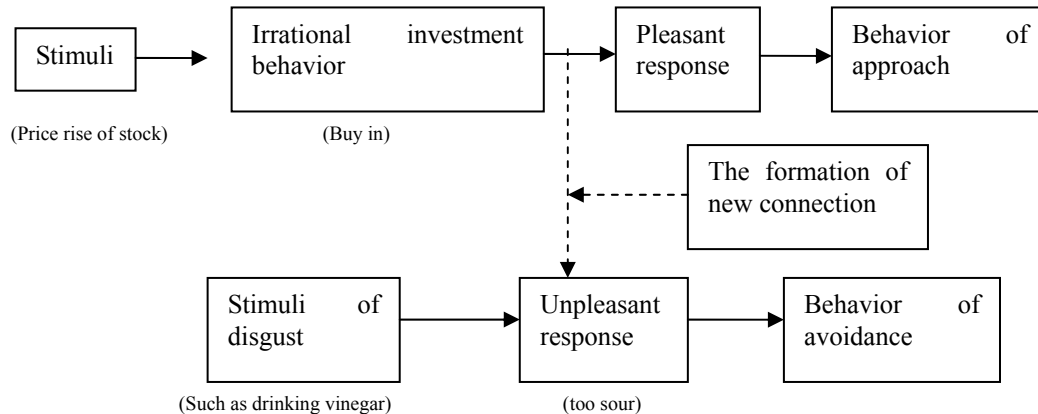


Figure 2 The General Principal of Aversion Therapy

5.5 Increasing adaptive behavior

(1) Behavior shaping. It is to establish a new way of individual behavior based on the existing way. Because each individual action changes in two dimensions: quantity and quality. An action can have changes in direction, way, power or duration. Investors are able to choose a variable in an existing response, and strengthen it towards the direction it hope and establish new behavioral responses. Behavior shaping is organized by this series of selective incentives and regression procedures. Behavior shaping techniques can be used to the learning of investment knowledge.

(2) Positive strengthening techniques. Positive strengthening technology refers to offer a reward to a behavior to increases the possibility which this behavior occurs. Aggrandizement with the effectiveness of reward is named as positive strengthening material. Food, money, sex, status, dominance, praise, feeling in certain situations may become the positive strengthening material. Therefore, we can strengthen the individual's low-frequency behavior with high-frequency behavior, increasing the occurrence of low-frequency behavior. Hull discussed the role of strengthening and formation of behavior in details, and lists a formula.

For the formation of behavior, the effect of positive strengthening technology is remarkable: from the pigeons pecking response of Skinner box to the most complex behavior in human activities. In the correction of investment behavior, we can see that when an investor wants to buy stock they make efforts to find beneficial information for purchase, while turning a blind eye to the bad news. If you want to change the kinds of habits, instructors should remind him to be sensible, comprehensive to check company's information from time to time. He should not make the transaction until he believe that the investment is worthwhile to conduct transactions. And only when the instructor has 80 percent chance to make profits, he exerts purchase behavior. Finally market will give the investor reward that is some investment income. If you give lasting reward to this new investment behavior, new behavior of investors will replace the old behavior.

(3) Implicit positive strengthening. Implicit positive reinforcement is a technology, which let investors to think making a reaction in their minds, and imagine their reaction have been rewarded (a good return on investment).

5.6 Self-regulation and achieving investment objectives

It is believed that the self-regulation is individual intrinsic strengthening process. He pointed out that through the cognitive process people can not only control their own lives, but also to develop future plans and objectives. The reason why people would insistently pursue the aims is people have the capacity to expect future, set goals, satisfy themselves and criticize themselves. The human can adjust their own behavior, reward themselves and punish themselves, depending upon their own internal standard. In Bandura's view, self-system is to provide the cognitive framework of reference mechanisms

and a set of functions of feeling, evaluating and regulating behavior. He thought that not only person's behavior was affected not only by the external factor, but also people may adjust their behavior through the self-production factor.

Investment behavior is grouped by a behavioral response chains. In behavioral responses chain, reactive induction of each link follows the links behind it immediately. Investors carrying out these acts, they need to make decisions from time to time. As long as to make a decision at the beginning, say 10 Yuan to buy 1,000 shares of Shenzhen Development Bank, the rest are all completed along the behavioral response chain. For example, turns on the computer and connect Securities Company's quotation and transaction system, then observes the trend of price for Shenzhen Development Bank, and so on. If these response links of behavioral is interrupted, the individual's self-regulation start to make effect. For example, there is a classmate visiting one's home. He stops to talk with the classmate (chain reaction is interrupted). At this time, he will use the self-regulation to re-decide the next step of action. For example, whether he say goodbye with his classmate, and then continue the original plan, or go to bars to chat with the classmate?

Investor's self-regulation process may be divided into three stages, namely self-observation, self-appraisal and self-strengthening. On the self-observation stage, investor inspect himself what he is doing. The second stage will be the self-appraisal stage, the doer compare the information obtained from the self-observation stage to the operation standard formed by past experience. If you find the comparison of this two is matched, the actors will be satisfied. If this two do not match, actors would be unsatisfactory. The third stage is the self-strengthening. Investors strengthen themselves according to the degree of similarity or difference between their own real operation and the standard which should be achieved. If the self-strengthening is correct, the investment behavior response chain which is interrupted by disturb would continue. If the self-strengthening is wrong, then a series of adjustments will begin to correct the mistake. Of course, investors may abandon the behavioral response chain, starting another response chain.

Self-regulation theory suggests that when the behavior of actors induces unexpected results, or when they need to decide what to do next, they will be vigilant. When alert appears, actors' self-regulation process begins. In the process of self-regulation, the efficiency of any stage will affect the overall behavior operational efficiency.

6 Conclusions

For different types of investment behavior deviation, this paper discussed the correction mechanism of behavior deviation. The premise to change investment behavior deviation is to understand the market correctly. In the process of research, it is needed to form evolving investment philosophy, scientific investment concept, and reasonable investment strategy and use effective investment methods to achieve the investment goal of stable profits in the market in the end. Based on the functional analysis of investment behavior, systematic desensitization is mainly used to overcome anxiety in the process of investment, and carry on self-confidence training to establish and strengthen investor confidence. Imitative study is used to form some good investment habits, and aversion therapy is used to trim some excessive investment behavior. Through behavior shaping and positive strengthening technology, some adaptive behavior is enhanced. With self-regulation technology, which can be used to achieve better behavior control effect, investment deviation can be corrected.

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