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A Review of Research on the Economic Consequences of Managers' Bounded Rationality Behaviour

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Abstract

Enterprise investment is an important content of macroeconomic policy formulation, and investment decision-making is also a very important content of business management for enterprises themselves. Managers are the main body of corporate decision-making, and their irrational behavior often has an important impact on corporate business decisions. Recognizing the importance of managers' irrational behavior, scholars have carried out a lot of theoretical research and empirical analysis from the perspectives of risk preference, overconfidence, cognitive bias, overoptimism, and conservatism, but a systematic research framework is still lacking. Based on this, this paper focuses on the short-sighted behavior of managers in irrational behavior, systematically reviews the current literature on the influence of irrational behavior of managers on business decision-making, summarizes the achievements and shortcomings of existing research, and looks forward to future research.

Keywords: bounded rational behavior of managers, short-sightedness of managers, risk appetite of managers, overconfidence of managers

1. Introduction

In real investment practice, due to the cognitive deviation of enterprise managers on future investment expectations, there is often a large gap between the actual future investment level of the enterprise and the optimal theoretical level, and the phenomenon of over-investment or under-investment often occurs, which has a negative impact on the investment efficiency of enterprises and the entire society. There are many factors that cause the cognitive bias of corporate managers, including objective socio-economic factors and subjective behavior of corporate managers. To explore the impact of relevant factors on corporate managers' cognitive bias and investment expectations is of great significance for correcting corporate over-investment or under-investment and improving the efficiency of social resource utilization. However, the current research on the influencing factors of enterprise managers' investment behavior mainly focuses on objective economic factors, and less consideration is given to human subjective factors.

In reality, the subjectivity of enterprise managers' investment behavior is mainly manifested as not satisfying the assumption of "rational economic man ". Bounded rationality factors are more obvious in enterprise managers' investment decisions.

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Research on this will help to further enrich the theoretical research on enterprise managers' investment behavior. Traditional financial theory assumes that decision-making subjects are rational economic people , but with the continuous development of financial markets, more and more economic phenomena that are difficult to explain by traditional financial theory have emerged. Since the 1980s, the rise of behavioral finance theory has provided effective means and tools for explaining "financial anomalies". Because decision-making subjects are often affected by psychology, preferences, beliefs and other characteristics, they show irrational behavior characteristics when making decisions. The "bounded rationality " hypothesis of Simon (1956) believes that individual decision-making is often not the "optimal choice" based on rationality, but the "first satisfactory choice" based on personal emotion. Later, scholars carried out a lot of research following this idea, and gradually formed a theory of behavioral finance.

Based on this, this paper systematically reviews the current literature on the impact of managers' irrational behavior on business decision-making, summarizes the achievements and shortcomings of existing research, and looks forward to future research. This paper expands the analytical framework of modern financial theory, which is of great significance for in-depth understanding of the role of behavioral financial theory in corporate decision-making, and also provides theoretical support for regulatory authorities and corporate decision-makers to formulate relevant policy guidelines.

2. Behavioural Finance Theory

The traditional financial theory proposes that when an actor makes an investment decision, he mainly takes the assumptions of rational expectations, risk avoidance, and utility maximization as the basis of action, and the actor is considered to be in a rational state. However, in actual situations, the decision-making subject will make mistakes in decision-making due to his own emotional factors. Therefore, when investors make investment decisions, they can only be judged as being in a state of bounded rationality, and thus behavioral finance theory appears in people's field of vision. In the capital market, there are often inconsistencies between individual behavior and investment decisions. The academic circles divide behavioral finance theory into cognitive bias theory and expectation theory. From a psychological perspective, Tversky (1979) proved that the above two theories have differences in overconfidence , psychological expectations, and risk attitudes, namely "cognitive bias". Cognitive bias mainly refers to the overestimation of one's own ability, which leads to overconfidence and overoptimism. This kind of mentality leads them to attribute the unsatisfactory results of the decision-making to the external environment in the decision-making process , and to attribute the ideal results of the decision-making to the personal ability. Cognitive bias theory believes that because different actors have different understandings and judgments about things, actors only have bounded rationality. Subsequently, Kahneman and Tversky (1979) further analyzed and explained the famous "Expectation Theory" . Expectation theory proposes that due to the influence of the external macro environment, personal risk preference and the incomplete information symmetry of the capital market, different decision makers have great differences when facing the utility function.

3. Literature Research on the Economic Consequences of Managers' Short-sightedness Behavior

In the field of financial management research, managers' shortsightedness refers to time shortsightedness, that is, managers pursue short-term interests at the expense of long-term interests of the company. However, in the theoretical research in the field of strategic management, Levinthal and March (1993) studied the learning process of organizations, and they first proposed that in addition to time short-sightedness, managers also generally have spatial short-sightedness. Although the research on spatial shortsightedness still occupies a weak position in later studies, it can be seen from practical cases that spatial shortsightedness is also common and has an important impact. Therefore , this study divides managers' shortsightedness into time shortsightedness and space shortsightedness .

(1) Managers' shortsightedness behavior.

There have been rich research results in the field of finance and accounting on the time shortsightedness of managers. According to the actual operating conditions of the company, making a reasonable trade-off between short-term interests and long-term interests is one of the most important tasks for professional managers (Edmans et al., 2017). When the behavior subject comprehensively considers the impact of various factors on the outcome of a certain behavior in the future, he will prefer short-term results, and at this time the behavior subject will have a short-sighted bias. When business managers judge the various results of future investment decisions, they have different preferences for the results at different times, and they are more willing to accept investment decisions that are closer to the current time, that is, they are more willing to accept short-term investments. All kinds of subjective and objective factors may lead to short-sighted deviation of enterprise managers. Among them, subjective reasons, such as enterprise managers' preference for investment risks, psychological pressure brought by shareholders and market regulators to supervise enterprise managers, etc., may bring short-sighted deviation to enterprise managers. According to the theory of behavioral finance, subjective reasons are relatively more likely to cause short-sightedness in business managers. They are eager to show their achievements to corporate shareholders, eager to pursue salary and job promotion, etc., which are often the most common subjective reasons for managers to have short-sightedness. If the enterprise managers have short-sightedness bias, the expected level of investment in the short term in the future will increase, while the long-term investment will decrease. The longer the time span in the future, the lower the expected level of enterprise investment.. Therefore, this paper also focuses on managerial time in investment decisions .

(2) Managers' spatial shortsightedness behavior.

Different from temporal shortsightedness, existing studies discuss managers' spatial shortsightedness very rarely, but in the business environment, this kind of investment agency behavior is ubiquitous. As early as 1960, Levitt put forward the concept of marketing shortsightedness for the first time, which is the earliest source tracing of managers' spatial shortsightedness. This article explores why the vast majority of product launches fail, culminating in the author blaming the marketing shortsightedness of company leaders. Specifically, companies focus too much on the products and services themselves, and not enough time, energy, and money on understanding what consumers really want. Therefore, managers only focus on the narrow

point of selling products and services, instead of focusing on the "big picture" that consumers really want. This is short-sighted marketing. In this article, the author believes that the gradual decline of American rail transportation is the most typical case of marketing short-sightedness, because they only focus on the narrow rail business rather than the larger transportation business territory, and then ignore what consumers really want. Rapid geographical movement, which also leads to the loss of business opportunities for other modes of transportation such as cars, trucks, and planes. Thus, the lack of focus on the larger picture implied by Levitt 's marketing shortsightedness was the theoretical starting point for later spatial shortsightedness. From the above analysis, we can see that the existing research on spatial shortsightedness can be divided into the following two categories: one is spatial shortsightedness based on the business scope of the investment industry; the other is spatial shortsightedness based on the geographical scope of investment regions.

(3) Discrimination and analysis of the difference between time shortsightedness and space shortsightedness.

There are significant conceptual differences between temporal shortsightedness and spatial shortsightedness. The former focuses on the pursuit of short-term investment and belongs to the attribute of time dimension; while the latter focuses on the pursuit of existing investment fields and belongs to the attribute of space dimension. Managers can show spatial short-sighted behavior in a specific field, but it does not affect their in-depth research and development and exploration in this specific field, making long-term investment, showing non-time short-sightedness. A few real-life cases can more clearly illustrate the difference between time shortsightedness and space shortsightedness. Burgelman (2012) studied how Intel paid too much attention to its existing main business model and neglected investment in emerging business areas. They found that the strategy of persistent rejection of emerging opportunities has been deeply rooted in the investment logic of Intel CEO, so he continues to invest a lot of money in existing technologies that occupy a dominant position . But corporate investment in a single, existing dominant sector leaves no room for other significant business opportunities to develop. Eventually the company exhausted growth and profitability opportunities in its primary business, and underinvestment in new business concepts and technologies severely limited the business's continued growth. In an in-depth study of Polaroid, Tripsas and Gavetti (2010) provide another case of managers who are spatially myopic but not temporally myopic. As a well-known Polaroid brand, Polaroid has always regarded itself as instant imaging technology through film, so Polaroid's firm commitment to the historical business model made it resist the very fashionable digital imaging technology at the time.

Although his competitors had successfully entered this emerging market, Polaroid's management tended to invest heavily in their initial successful products and promised to upgrade existing products to state-of-the-art technologies that were very complex, uncertain, and high-investment, because they believed that this investment strategy was consistent with the company's previous capabilities. So Polaroid's management exhibited spatial shortsightedness, but not temporal shortsightedness. Both cases show that temporal shortsightedness and spatial shortsightedness are not only different in theory, but also have significant differences in practice.

Table 1 Summary of Measurement Method of Manager's Shortsightedness

Managers' Shortsightedness	Temporary's Shortsight	Spatial's Shortsight
Definition	Managers purchase short term investment projects with rapid returns and give up long term investment projects with slow returns for personal interests such as salary rewards and career development	Managers over invest in current specific industries, while ignoring investment in other potential industries
Source	Management defense hypothesis Impulse remuneration Compensation impairment hypothesis	Cause a peaceful life Measurement of intrinsic Salary incentive period
Metrics	Stock turnover rate, R&D to sales revenue ratio (lundstrum , 2002), R&D reduction dummy variable (Chen et al., 2015; Lai et al., 2020), capital expenditure and fixed assets change to total assets ratio (Kraft et al., 2018), advertising expenditure to total assets ratio (Brochet et al., 2015), patient city number (Agarwal et al., 2018)	

(4) The economic consequences of managers' short-sighted behavior.

Previous literature mainly focused on the influencing factors of managers' short-sighted behavior, and the discussion on the economic consequences of managers' short-sighted behavior is still very scarce. Existing studies mainly analyze how managers' shortsightedness affects corporate performance, corporate competitive advantage, and corporate behavioral decisions.

1) The impact of managers' short-sightedness on corporate performance. For spatial shortsightedness, on the one hand, some scholars believe that managers' spatial shortsightedness will damage business performance. For example, Zhu et al. (2017) argue that when firms actively invest in establishing connections with out-of-region knowledge bases with different practices or institutional models, it can boost the economic development of the firm’s region. This is because when local enterprises that are connected to the outside can continuously introduce fresh knowledge and advanced technologies, the problems of regional rigidity and path dependence can be effectively alleviated. Cao Chunfang et al. (2018) showed that CEOs have a short-sighted agency problem in investing in their hometown, but this behavior did not create excess returns, but instead reduced the company's operating performance and caused investment losses. On the other hand, some scholars believe that managers' spatial short-sighted behavior is beneficial to the company's performance level. Berger and Ofek (1995) pointed out that managers’ non-spatial shortsightedness diversification investment seriously damages corporate value, because diversification investment may represent the self-interested behavior of managers to build a business empire, while spatial shortsightedness concentration investment can improve business performance.

Regarding time short-sightedness, academic circles have reached a relatively consistent conclusion, that is, although time short-sightedness of managers can quickly obtain investment income, it is not conducive to maximizing the company's overall value after considering the long-term and short-term. The empirical research results of Antia et al. (2010) show that the longer

the CEO's investment horizon, the higher the company's value, and the shorter the CEO's investment horizon, the lower the company's value. Kraft et al. (2018) found that frequent financial reports stimulate managers' short-sighted agency behavior, and this behavior ultimately damages the company's operating efficiency and performance growth. Based on the perspective of pressure from investors' pursuit of short-term performance, Wang Haiming and Zeng Deming (2013) used the data of A-share listed companies in China's Shanghai and Shenzhen stock markets from 2003 to 2009, and also found that short-term investment caused by managers' short-sightedness significantly reduced the future profitability and performance of enterprises . In addition, Cadman and Sunder (2014) selected the unique scenario of IPO, and found that the pressure of venture capitalists on short-term performance led to short- sightedness of managers after the IPO, and short-sightedness of managers ultimately reduced long-term excess stock price returns. Flammer et al. (2017) cleverly used shareholders' voting events on managers' long-term compensation incentive proposals to construct breakpoint regression to solve the endogenous impact, and finally found that managers' time shortsightedness reduced the company's performance level.

2) The influence of managers' short-sightedness on corporate behavior decision-making. Jia's (2018) research shows that the time shortsightedness of managers' exploitative innovation investment reduces the agency behavior of management to hide negative news, while the non-time shortsightedness of managers' developmental innovation investment increases the negative hidden agency behavior of management in the investment process because of the high risk and high failure rate of investment projects . However, the space short-sightedness of managers' centralized management intensifies the behavior of managers to conduct earnings manipulation and hide negative news (Aivazian et al., 2015). In addition, Klueter et al. (2017) found that despite the trend in business practice that mature companies increasingly cross organizational boundaries to collaborate with startups for emerging and novel technological solutions, there are still many mature companies that are reluctant to cooperate with startups . They answered this question from a short-sighted perspective. The study found that time-short-sighted managers pursue technologies that are highly compatible with their own existing technologies to achieve quick benefits, so they are unwilling to cooperate with start-ups with emerging technologies; space-short-sighted managers tend to work in the company's current inherent technology field, and also show resistance to cooperation with start-ups. Saeidi (2021) took 150 listed companies on the Tehran Stock Exchange from 2013 to 2019 as a research sample, and found that myopic management significantly intensified money laundering because of the pursuit of short-term performance. Garcia-Ortega et al. (2021) took a sample of 159 companies in 5 EU stock indexes and found that managers' spatial shortsightedness seriously hinders companies' investment in Industry 4.0 and business digitalization. Among them, managers who support companies' investment in Industry 4.0 and business digitalization barely reach 50%.

4. Literature Research on the Economic Consequences of Managers' Risk Preference Behavior

(1) The concept of managers' risk preference behavior.

"Risk" is a risk in a broad sense, referring to a kind of uncertainty. "Preference" is a state in which decision makers make choices based on personal psychological states, value judgments, and

external environments in different environments. Sitkin and Pablo pointed out that risk preference refers to the different attitudes and preferences of different investors for the uncertainty of returns in the process of making investment decisions. That is to say, due to individual differences, even in the face of investments with the same returns, different investors are willing to take risks in different degrees. With the development of behavioral economics, the concept of risk preference has also been enriched. It is generally believed that the level of individual risk preference will remain in a relatively stable state in the short term. However, some studies have pointed out that the level of managers ' risk preference will change with the personal physiological state, emotion and other factors, which will affect the manager's risk decision-making attitude. In some cases, the manager's risk preference will change .

Different actors have different attitudes towards risk. Some people may like the stimulus of big gains and losses, while others may be more willing to "seek stability". According to their preference for risk, investors can be divided into risk avoiders, risk seekers and risk neutrals. Risk aversion The attitude of risk avoiders to choose assets is: when the expected rate of return is the same, they prefer assets with low risk; for assets with the same risk, they prefer assets with high expected rate of return. Risk seekers are just the opposite of risk avoiders. Risk seekers usually actively pursue risks and prefer turbulent returns to stable returns. The principle of their choice of assets is: when the expected return is the same, choose the risky one, because it will bring them greater utility. Risk Neutral Risk-neutral people are generally neither risk-avoiding nor actively pursuing risk. They choose assets based on the size of their expected returns, regardless of their risk profile.

(2) The economic consequences of managers' risk preference behavior.
Factors affecting risk preference mainly include individual characteristics and decision-making environment. In view of the uncertainty and complexity of decision-making subjects in making decisions , the value of studying managers' risk preferences cannot be ignored.

Ryan and Wiggins (2002), Graham et al. (2013) proposed that risk-averse managers would prefer short-term investment projects over long-term projects. Bai Yuntao et al. (2007) showed that when the heterogeneity of the risk appetite of the management team is high, the team is likely to form a consistent investment decision. Gong Guangming and Zeng Zhaocun (2013) believe that risk-loving managers are often adventurous , and will adopt aggressive strategies in corporate decision-making, which will easily lead to excessive investment in enterprises. Further, Jin Hao and Xia Qingquan's (2017) research results confirmed that managers who prefer risk will reduce the problem of underinvestment in enterprises.

Romano and Tanewski et al. (2001) pointed out that there is a relationship between managers ' risk preference and the financing methods chosen by enterprises. Cain and McKeon et al. (2013) proposed based on the prospect theory that if the managers of the enterprise are risk-loving, they will tend to choose the form of debt financing when the company's funds are insufficient; if the managers are risk-averse, they will tend to choose the form of equity financing. Ma Yajun and Liu Liqin (2004) concluded through research that managers prefer equity financing to obtain funds in order to avoid risks. Luo Zhengying and Zhou Zhongsheng (2010) found that the risk preference of managers will affect the scale of debt financing of enterprises, but there is no obvious correlation between the two. Zhu Guangyin et al. (2014) pointed out that risk-loving

managers will increase the corporate debt ratio, and also prefer short-term debt in the form of debt financing. Lai et al. (2016) found that managers with military experience prefer high risks, and their companies have higher debt levels and shorter debt maturity structures.

Zhang Tiezhu (2010) found through empirical research that risk-loving managers prefer to choose radical strategies, which have a greater impact on the quality of accounting earnings gradually strengthened. Zheng Chunyan (2011) pointed out that the higher the degree of risk preference of enterprise managers , the higher the degree of earnings management of enterprises. In contrast, Sun et al. (2016) found that the more risk-loving managers are, the lower the quality of earnings management is.

5. Literature Research on the Economic Consequences of Managers' Overconfident Behavior

(1) The concept of managerial overconfidence behavior.

Overconfidence is a professional term in psychology , which refers to the psychological bias that people tend to overestimate their probability of success and underestimate the probability of failure (Wolosin et al1, 1973; Langer, 1975). A large number of psychological research results show that people generally have the psychological characteristics of overconfidence (Weinstein, 1980; Alicke , 1985). And this phenomenon also exists in the field of management. Many studies have found that the level of overconfidence of business managers is generally higher than that of the general public (Cooper et al., 1988; Landier et al., 2004). However, judging from the literature , behavioral assumptions are often neglected in managers' decision-making models (Barberis and Thaler , 2003). Based on financial theory and firm theory, this paper uses behavioral finance theory to study the impact of managers' overconfidence on firm expansion and then on firms' financial distress.

Jiang Fuxiu (2009) took the Chinese listed companies from 2002 to 2005 as the research object, empirically tested the influence of managers' overconfidence on the expansion speed, choice of expansion methods and economic consequences of expansion. The research results show that : managerial overconfidence has a significant impact on the expansion speed of the enterprise, specifically, there is a significant positive correlation between managerial overconfidence and the expansion scale of the enterprise; at the same time, managerial overconfidence also has a certain impact on the expansion mode of the enterprise, as shown in the significant positive correlation between it and internal expansion , and the degree of positive correlation is greater when the enterprise has sufficient cash flow; but the relationship between managerial overconfidence and mergers and acquisitions is not significant. Lu Zhengfei and Chen Caidong (2009) studied the relationship between manager overconfidence, enterprise expansion and enterprise risk through the simultaneous equation model . The empirical test results show that the expansion strategy implemented by overconfident managers will increase the possibility of enterprises falling into financial distress.

Malinendier and Tate (2005) pointed out that the degree of CEO overconfidence is positively related to the frequency of corporate investment, and it is easy for companies to cause over-investment problems in order to expand their own scale. Weinberg (2006) found that the degree

of overconfidence of managers has a significant positive correlation with the size of project risk, which can easily damage the value of the enterprise. Glase et al. (2007) found that overconfident corporate managers will enhance the sensitivity of companies to investment cash flow and stimulate companies to expand their investment scale. Schrand et al. (2011) believed that the company's managers were overconfident and tended to overestimate the investment returns of projects. Lara et al. (2016) came to the same conclusion . Galasso and Simcoe (2011), Hirshleifer (2012) found that overconfident managers tend to prefer technology innovation investment. Ye Bei and Yuan Jianguo (2008) proposed that managers' overconfidence will positively promote the cash sensitivity of corporate investment. He Hongqu and Zhao Tianzhe (2017) found that overconfident managers have strong cash flow sensitivity, which increases the level of corporate over-investment and reduces investment efficiency.

Hackbarth (2008) found that the degree of managerial overconfidence is positively correlated with the company's asset-liability ratio, which was supported by Nofsinger (2005) and Oliver (2005). Landier and Thesmar (2005), Xu et al. (2015) believe that compared with rational managers, overconfident managers are more inclined to short-term debt financing, and the research conclusions of Zhang et al. (2016) are similar. Yu Minggui et al. (2006) found that when the overconfidence of managers increases, the asset-liability ratio of the enterprise also increases, and the debt maturity structure increases. Xiao Fenglei et al. (2011) pointed out that the chairman 's overconfidence will affect the company's financing decisions. Chen Su and Wu Junjie (2014) believed that the degree of overconfidence of managers will increase the financing risk of enterprises.

Roll's (1986) "Conceit Hypothesis" believes that one of the reasons why enterprises have mergers and acquisitions is the overconfidence of enterprise managers. As a result, the concept of managerial overconfidence has gradually been applied in academia . Scholars have studied its impact on corporate behavior from the perspective of managerial overconfidence. Brown and Sarma (2007) found that overconfidence leads managers to adopt diversified M&A behaviors, which can damage firm value. Zhai Aimei (2012) found that managers' overconfidence will have a significant impact on corporate M&A decisions. Fan et al. (2014) pointed out that the overconfident behavior of corporate managers will increase the frequency of foreign mergers and acquisitions, and Opie et al. (2018) also came to the same conclusion.

Zhu and Tang (2010) found that overconfident managers tend to choose diversification. Andreou et al. (2011) further pointed out that diversification caused by managers' overconfidence will damage the company's value. Ahmed et al. (2013) believe that overconfident managers are more likely to choose some aggressive financial strategies. Jiang Fuxiu et al. (2009) found that overconfident managers will accelerate business expansion and easily lead to financial distress. Wang Delu and Song Xuefeng (2015) pointed out that managers' overconfidence is conducive to the transformation of corporate business strategies, thereby promoting the growth of corporate value. The research results of Xu Chaohui and Zhou Zongfang (2016) prove that overconfident managers tend to diversify their operations , which will lead to a significant increase in the credit risk of the enterprise

(2) the economic consequences of managers' overconfident behavior.

Reasonable investment is of great significance to the enterprise, which is related to the stable and sustainable development and growth of the enterprise. It is also an important way to bring value to the shareholders of the enterprise. The evaluation of whether the investment of the enterprise is reasonable or not is mainly based on whether the net present value of the income of the investment project is greater than zero. According to behavioral finance theory, even if corporate managers can regard maximization of shareholders' interests as their own responsibility, they may not be able to satisfy the assumption of "rational economic man " in the specific investment decision-making process, resulting in suboptimal decisions in the final decision.

Overconfidence of managers is the main reason for this phenomenon. When business managers are overconfident, they will over-believe and over-evaluate their own decision-making ability and investment management ability, firmly believe that they can effectively and scientifically manage future investment projects, and the operating results of future investment projects will develop in a more optimistic state as they expect, resulting in relatively considerable returns. Investment risks will also be controlled at a low level, which will exaggerate the overall value of investment projects, and even investment projects with negative net present value will be highly evaluated and favored. Therefore , overconfident managers will think that the company's future investment projects have a higher probability of success, and are more inclined to expand the scale of future investment, and the level of corporate investment expectations will increase accordingly.

6. Literature Research on the Economic Consequences of Managers' Cognitive Bias Behavior

(1) the concept of managers' cognitive deviation behavior.

Cognitive bias refers to various cognitive biases that occur when decision makers with normal physiological and psychological states lack clear expectations and grasp of decision-making problems due to lack of knowledge, such as "representative" bias, easy-to-acquire bias, overconfidence, etc. This cognitive bias has been confirmed in the research of behavioral economics and behavioral finance, and has also achieved good results in the formulation of macroeconomic policies for marketing, human resource management, etc. This paper studies the influencing factors of cognitive biases in management decision-making behavior and their interaction with respect to unstructured and semi-structured decision-making problems that have no fixed rules to follow in the decision-making process and decision-making methods.

1) Classical Decision Theory (Classical Decision Theory, CDT) assumes that people are rational, and their decision-making process and decision-making methods have fixed rules to follow, can be described with clear language and models, and can realize basic automation of decision-making processes based on certain general models and decision-making rules. The decision-maker can consider all actions and their impact before making a decision ; then choose the optimal action as the countermeasure according to the decision-maker's own value standard. CDT considers decisions to be identical in nature and is able to set standards for comparison. In fact, behavioral evidence suggests that people have cognitive biases in the decision-making process, and they do not always choose the optimal decision-making strategy according to the decision-

maker's own value standards (such as the principle of maximizing expected utility) and cannot completely follow a standard model to make decisions. Due to the limitation of CDT setting conditions, it cannot fully explain the behavior and decision-making in the real world, such as St Petersburg paradox and AIlais Theory is a typical decision that violates expected utility theory .

2) Bounded rational decision-making. Decision makers are bounded rationality. When facing uncertain decision-making problems, there are no fixed rules for the decision-making process and decision-making methods to follow. There are also no fixed decision-making rules and general models to follow. Decision-makers are easily affected by perceptual bias. The use of intuition often focuses on the psychological explanation behind decision-making behavior rather than the right and wrong decisions . Behavioral decision-making not only studies the intuitive judgment or decision-making thinking process of decision-makers, but also studies the decision-making model containing behavioral variables. By studying the decision-maker's information processing mechanism in judgment and choice and the influence of the internal and external environment on the decision-maker, the behavioral variables are extracted to correct and improve the traditional decision-making model. Through empirical research methods such as psychological experiments, observation and interviews, it reveals people's judgment and choice behavior in the decision-making process, including four links of information acquisition, processing, output and feedback, and studies the role of psychological factors in each section of "judgment" and "choice".

Kahneman and Tversky (1979) used cognitive psychology to revise the basic assumptions of classic decision-making theory and proposed a "Prospect Theory" that fully demonstrated the complexity and uncertainty of human decision-making behavior. They found many decision-making deviations that deviate from traditional optimal behavior, such as the uncertainty effect (Certainty Effect), reflection effect (Reflection Effect), misjudgment effect (Anchoring Effect) and regret theory. When "losing", it is inclined to risk appetite . In addition, Thaler's psychological account Shefrin 's behavioral life cycle hypothesis and Theories such as Hsee 's measurement ability have enhanced the explanatory power and predictive power of decision-making behavior (Heath, 1998).

(2) The economic consequences of managers' cognitive bias behavior.

Zhang Xinhai and Wang Nan (2009) believe that managers' cognitive bias will lead to impulsive investment in enterprises when the economy is overheated, which in turn leads to overcapacity of enterprises. In addition, Cao Yushan (2018) found that managers' cognitive bias will improve corporate derivatives investment behavior. Zhang Botao et al. (2008) pointed out that the cognitive bias of decision makers is an important reason for the financial conservative behavior of enterprises. Li Yanxi et al . (2012) found that when managers' cognitive bias is serious, listed companies will adopt more extreme debt decisions. Chen Kejing et al. (2013) found that managers' cognitive preferences will have an impact on the tax shield effect of corporate liabilities. Busenitz and Barney (1997) pointed out that it is the existence of cognitive bias that promotes entrepreneurial behavior. Baron (1998) further pointed out that cognitive bias is the reason why entrepreneurs make quick decisions. Zhao Wenhong and Sun Wei (2012) Entrepreneurs' cognitive bias will promote continuous entrepreneurship. Kannadhasan et al. (2014) believe that cognitive bias is an important factor affecting entrepreneurial decision-making . Shan Biao’an (2018) pointed out that entrepreneurs’ cognitive bias is the core factor

leading to differences in corporate innovation decision-making, which will affect the speed of technology commercialization.

7. Conclusion

With the continuous development of behavioral finance theory, domestic and foreign researches on managers' irrational behavior are also increasing , which has greatly promoted the improvement of the research framework of behavioral finance. From the existing literature, it can be found that the current irrational behavior of managers can be subdivided into risk preference, overconfidence, cognitive bias, excessive optimism, short-sightedness and conservatism. A large number of theoretical analysis and empirical research have been carried out around these irrational characteristics. There are many research results in the academic circles on the aspects of managers' risk preference and overconfidence. Fewer results were found in managerial shortsightedness and conservatism. The main reason for this phenomenon is that the academic community has not yet found a feasible method to quantify management short-sightedness or conservatism. The lack of econometrics seriously restricts the academic development in the field of behavioral finance . In the future research , scholars can conduct research from the following three aspects: First, find a scientific measurement method of managers' shortsightedness and conservatism. On the basis of screening the influencing factors of managers' short -sightedness and conservatism, an evaluation index system is established, and the weight of each index is determined by the method of subjective and objective comprehensive weighting, and finally an evaluation model of managers ' short-sightedness or conservatism is constructed .

Follow-up research can start from management's short-sighted conservatism, examine the mechanism by which managers' decision-making influences corporate investment, financing, mergers and acquisitions, and enrich the literature system on the economic consequences of managers' behavioral characteristics; thirdly, explore the capital market's response to managers' irrational behavior. Using the case study method , this paper analyzes the market response to the irrational behavior of different managers, finds the conduction path through which the behavior characteristics of managers affect the capital market response, and provides practical evidence for the application of the high echelon theory in the field of financial accounting.

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