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A STUDY OF SPORTS LOTTERY BETTING BEHAVIOR BASED ON EMPIRICAL EFFECT ANALYSIS

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Abstract

In order to curb the prevalence of unhealthy atmosphere, the government issued sport lottery, which not only gives people proper leisure and entertainment, but also applies the surplus to social public welfare expenditure. But all the investors are rational when they take the paper in the injection movement, and are they not affected by the experience effect? The purpose of this study is to study whether there is an empirical effect on the consumers of sports lottery and whether it is rational when they invest in sports lottery. The results show that monthly income is significantly correlated with herd behavior. Age was significantly correlated with conformity and probabilistic behavior. There was no significant correlation between occupation and experience effect and betting behavior. Education is significantly correlated with probabilistic behavior in snake bite effect. Empirical effect has no significant correlation with betting behavior. It shows that the majority of people will make bets according to the past trend, choose the way to make bets in their own favor, and will not be affected by past experience, can make rational judgments.

Keywords: Experience Effect, Sports Lottery, Betting Behavior, Judgment

INTRODUCTION

There are two main purposes of issuing sports lottery tickets. One is to raise sports funds, revitalize domestic sports and make it flourish. The second is to guide the underground gambling atmosphere for a long time and make the sports game legitimate, fair and open. The attraction of sports lottery lies not only in luck, but also in the fact that the players have enough information about the game. Only when they have a certain understanding of the game, accurate judgment and unique vision and insights about the game, can they have a better chance of winning, rather than guessing and betting randomly. Playing lottery can not only enjoy the pleasure of the game, but also greatly enhance the tension of the game, so that a game can attract more fans and achieve the effect of integration into the game. Secondly, people are more and more enthusiastic about sports. With the release of sports lottery, the trend is more prosperous, and people are more interested in sports events. So we can satisfy our financial desire by purchasing lottery besides enjoying the game. So that they can be more involved in the bet of the game and make themselves more exciting when watching the game. In addition to their own past experience of betting to judge the betting behavior. Therefore, the purpose of this study is to understand the thinking and decision-making behavior of the participants in the betting process.

LITERATURE REVIEW

Since the prospect theory proposed by Kahneman and Tversky (1979), behavioral finance has incorporated many psychological concepts based on a wide range of theoretical foundations to replace the rational basic assumptions of classical financial theory. Kahneman et al. (1982) pointed out that heuristics is that people tend to intuitively make judgments and decisions based on past experience when facing uncertainty, so people cannot reasonably solve all problems as assumed by classical financial theory. On the contrary, they use empirical rules to deal with a large amount of information, that is, people's past experience when making judgments. It will affect this decision-making. In human society, many people often use their own or other people's rules of experience as a reference for their decision-making. However, what is empirical law? As the name implies, the so-called empirical method refers to a method of making use of the past experience of others' success or failure as the basis of their own actions and decision-making reference. It can also be defined as a decision-making method formed gradually by the "rule of experience" based on the experience of daily life. Academically, the so-called "rule of thumb" refers to "a strategy or procedure used to save effort in problem solving, that is, the rule of thumb used to solve specific problems.

Grether (1980) believes that people tend to categorize events according to past experience or similar situations, and then over trust the possibility of historical repetition when evaluating the probability, that is, when evaluating the possibility of something, they often rely on their past feelings or experiences and forget the condition of the whole parent. The obvious example is the gambler's Fallacy, De Bondt (1991) found that there is a phenomenon in the stock market consistent with the gambler's fallacy. After three years of bull market, the forecast will be excessively pessimistic, and after three years of bull market, the forecast will be excessively optimistic. When people's behavior or decision-making is influenced by past experience, rather than by a complete and comprehensive rational evaluation, it is a kind of irrational error, called empirical effect. Because experience is good or bad, success or failure, experience effect can be divided into sweet-end effect and snake bite effect according to different experience. It shows that when a person's decision-making or behavior is influenced by good experience in the past, it is called the sweet end effect. Secondly, when people's decision-making or behavior is affected by past negative experience, it is called snake bite effect. Empirical judgment forecasting is one of the commonly used forecasting methods in economic society, whether it is based on human, time, cost and other factors, or on the accuracy of forecasting results.

RESEARCH METHOD

This study will adopt questionnaire survey to analyze whether there is experience effect when consumers buy lottery tickets according to the demographic variables (monthly income, age, occupation, education), experience effect (Sweetness effect, snakebite effect), betting behavior (herd behavior, probability behavior, speculative behavior). There is a significant correlation between betting behavior and demographic variables and empirical effects. In this study, based on the condition that the number of samples must be greater than 30 according to the law of statistical large numbers, 150 questionnaires were distributed to the people who purchased the lottery, and 141 questionnaires were collected, with a recovery rate of 94%. Seven invalid samples were excluded and 134 valid samples were excluded. The main problem with invalid samples is that they have missing data.

ANALYSIS AND RESULTS

Difference analysis

By using the differences of different monthly income, age, occupation and educational background, the following factors were analyzed: sweetness effect, snakebite effect, herd behavior, probabilistic behavior and speculative behavior.

Table 1 ANOVA variances of different categories in different dimensions

	monthly income	age	occupation	educational
sweetness effect	0.6865	1.3682	1.2817	0.4895
snakebite effect	0.9275	0.8023	0.5406	3.5981**
herd behavior	3.1781**	3.1117**	1.4240	1.4067
probabilistic behavior	0.6338	6.0167**	0.6948	5.6283**
speculative behavior	0.2449	1.8918	1.5713	2.1151

*p<.05 **p<.01

According to the data, monthly income is significantly correlated with less than 0.05 in herd behavior. Because of its good economic situation, it is easier to invest according to the trend of the market rather than to think about other investments. Secondly, age is significantly correlated with herd conformity and probabilistic sexual behavior less than 0.05. Studies show that most teenagers are 20 to 30 years old, so they will bet on their peers' opinions. Because they are more concerned about sports events, they will bet on them with their own favorable chances. Furthermore, there was no significant correlation between career and experience effect and betting behavior. Because betting behavior and experiential effect are related to individual psychological factors and personality traits, they are not very related to their profession. Finally, education level is significantly correlated with less than 0.05 in snake bite effect and probabilistic sexual behavior. Educational level will judge expectations according to its own knowledge, so once the betting fails, its expectations do not meet its own expectations, and so it will choose the most advantageous and the most probable way to bet on itself.

Verification of hypothesis on betting behavior model based on sweetness effect and snakebite Effect

Regression analysis was used to explore the predictive power of the behavioral patterns of the outcome variables due to the sweetness effect and snakebite effect, and to observe whether the predictive power of the behavioral patterns of the outcome variables reached a significant level. The constructions of sweetness effect and snakebite effect were used as predictive variables, and the behavioral patterns of betting were used as criterion variables. Enter was used to test the existence of the variables through the establishment and test of regression equations. Causality is used to verify the overall explanatory power of the predicted variables to the benchmark variables by the judgment coefficient R^2.

Table 2 Regression Analysis of sweetness effect on betting Behavior

Model	Unstandardized coefficient		t	Standardization coefficient	Sig
	Beta Estimates	Standard error		Beta distribution	
Constant	2.929	0.492	5.946		0.000**
herd behavior	0.022	0.090	0.244	0.022	0.807
probabilistic behavior	0.074	0.118	0.625	0.061	0.532
speculative behavior	0.082	0.094	0.875	0.083	0.383
F Value			0.734		
R^2			0.064		

*p<.05 **p<.01

Table 3 Regression Analysis of snake bite effect on betting Behavior

Model	Unstandardized coefficient		t	Standardization coefficient	Sig
	Beta Estimates	Standard error		Beta distribution	
constant	3.287	0.547	6.009		0.000**
herd behavior	-0.034	0.100	-0.342	-0.031	0.732
probabilistic behavior	0.082	0.131	0.626	0.062	0.531
speculative behavior	-0.057	0.104	-0.544	-0.052	0.586
F Value			0.178		
R^2			0.075		

*p<.05 **p<.01

The research shows that there is no significant relationship between sweetness effect and snakebite effect on betting behavior. It shows that most of the betters are rational and not affected by past experience. Because sports lottery is not like lottery, consumers can bet with a more rational attitude.

CONCLUSION

After long-term estimation and comparison, it is found that although empirical judgment method has no strong theoretical basis and numerous mathematical logic deductions are the backing for the use or selection of forecasting methods, it is still widely valued by forecasters in practical applications and properly quoted. For example, in the forecasting of econometric models, forecasters want to achieve higher accuracy. In practice, empirical judgment is often used in

conjunction with other prediction methods. In traditional economic theory, lottery fanaticism is an unreasonable phenomenon. Modern financial theory makes two important assumptions about investors' attitude towards risk: pursuing maximum return and avoiding risk. The risk aversion assumption refers to that investors always choose portfolios with smaller standard deviation when they choose between two portfolios under the same other conditions. That is to say, the utility brought by risk to investors is negative, and the risks undertaken by investors must be compensated by corresponding returns. This study finds that there are some correlations between empirical effects and sports lottery betting behavior. Among them, the abnormal changes in consumer behavior and psychology caused by lottery issuance have become a new subject for the development of the lottery industry. Future research should take into account that investment decisions of cost sometimes conform to the law of probability rather than the law of small probability advocated by the weight function of decision-making of prospect theory. This discovery involves the regression of some rational decision-making theories to traditional theories, and therefore has theoretical value worth exploring.

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