Analysis of Driving Factors and Action Path of Green Investment Behavior of Individual Investors

Chenyu Li *, Yunwang Zhang, Guoyuchao Hou, Mingpu Ma

College of Management and Economics of Tianjin University, Tianjin, 300072, China

* Corresponding author email: chenyutju@outlook.com

Abstract. Green finance plays a key role in the process of achieving the dual carbon goals in China. China's capital market is dominated by individual investors, so studying their green investment behavior has a relatively complete theoretical value for effectively playing the incentive mechanism of green finance, and also has important practical significance. First, based on literature research and a questionnaire survey, this paper obtains and screens the driving factors of individual investors' green investment behavior. Secondly, using Logistic regression and other methods, we identified the impact of the herding effect, local preference, environmental awareness, media information, residential environmental pollution level, policy factors, corporate image, and green investment willingness on investment behavior. Thirdly, the structural equation model is used to test the action path of the driving factors, and six significant influence paths exist among the eight factors. Finally, according to the research conclusions, we propose corresponding policy recommendations at the individual, company, and national levels to improve the green investment behavior of individual investors.

Keywords: Individual Investor; Green Investment; Behavioral Financial Factors.

1. Introduction

Since the reform and opening up, China's economy has maintained a high-speed growth. At the same time, environmental pollution and climate problems have become increasingly prominent. Under the current situation, the state attaches great importance to the protection of the ecological environment. For example, in September 2020, General Secretary Xi Jinping proposed the targets of "peak carbon dioxide emissions" in 2030 and "carbon neutral" in 2060. The state has also promulgated a series of laws, regulations, and policies to control the environment, for example, in January 2021, the State Council issued the Regulation on the Administration of Pollution Discharge Permits. However, there will be a huge gap between relying only on traditional end-of-life governance measures, such as administrative measures, taxes and fees, and technical measures, and China's ultimate goal of achieving excellent environmental governance. To substantially improve the ecological environment, financial means must be adopted to change the incentive mechanism of resource allocation. Among them, green finance is an important driving force to realizing green development.(Wang Xin and Wang Ying, 2021).

Although China is one of the countries with the relatively complete green financial system in the world, green finance in China is still dominated by green credit as an indirect financing method at present, and direct financing methods such as green securities are developing slowly compared with green credit, which cannot effectively play the function of resource allocation in the green financial market. Compared with developed countries, China's capital market is dominated by individual investors. Under this background, the research on individual investors' green investment behavior, identifying the driving factors of individual investors' green investment behavior, and clarifying the action path of the driving factors are undoubted of great practical significance to take corresponding measures to guide individual investors' green investment behavior and improve the green financial system.

At present, however, behavioral finance plays an extremely important role in the green investment decision-making of individual investors. In addition, there is little literature on the interaction between individual characteristics, psychological factors, behavioral and financial factors and external

environmental factors. Therefore, starting from individual investors, this paper innovatively constructs the scale and model of influencing factors of green investment behavior. When studying the psychological factors of individual investors, the questionnaire is designed with the help of psychological effects to explain the impact of driving factors on individual investors' green investment behavior from the perspective of behavioral finance. Finally, the structural equation model (SEM) is used to analyze the path of driving factors and explore the impact of their interactions on individual investors' green investment behavior.

The contribution of this paper is not only to enrich the existing theories of individual investors in academic field to promote the model updating in the research field of green investment at home and abroad, but also to put forward the policy recommendations in practical sense, which points out the specific direction to promote the green investment of individual investors in our country in the future. First of all, this paper innovatively combines the herd effect and local preference in behavioral finance, effectively expands the previous literature limited by demographic characteristics and puts forward new factors to explore the driving factors of green investment behavior. Secondly, on the basis of screening and identifying the driving factors, the driving factor action path analysis is carried out, which improves the green investment market and helps to further understand the action mechanism of the driving factors on the green investment behavior. Finally, the main influencing factors such as corporate image, policy factors, residential pollution level and other factors are extracted for path analysis, and relevant conclusions are drawn, which provide reference for the government to formulate relevant policies and listed companies to adopt corresponding strategies.

The second chapter is the literature review and hypothesis presentation, mainly introducing the development trend of green investment related research. The third chapter is the research and design. The fourth chapter. The fifth chapter is the summary and guidance.

2. Relevant Literature and Assumptions

This chapter mainly summarizes relevant literature, refines the factors that affect green investment behavior, and puts forward assumptions according to relevant theories.

2.1 Factors Influencing Green Investment Behavior of Individual Investors

This section mainly extracts possible influencing factors from demographic characteristics and other external factors. Demographic characteristics mainly include gender, age, education level, income level and other factors that will affect their attitude and behavior towards green investment. Behavioral finance mainly studies herding effect and local preference. Other factors mainly include environmental regulations, media publicity and promotion of green investment, individual investors' own awareness of environmental protection, the level of environmental pollution in investors' residences and the green governance image of listed companies.

2.1.1 Behavioral Financial Factors

On the one hand, based on the traditional financial theory, demographic characteristics will have an impact on investment behavior, for example, scholars believe that age, income, education, occupation, etc. will have an impact on individual investors' investment decisions (Lu Zhi et al., 2002; Jain and Kushboo, 2012; Geetha and Vimala, 2014); On the other hand, based on behavioral finance theory, when making investment decisions, individual investors have herd mentality and prefer to invest in companies with high familiarity located in their residence, i.e. they have herding behavior and local preference.

(1) Herd Effect Factors and Green Investment Behavior.Herding is used to describe people's herd mentality in the securities market, and it is a special phenomenon in the financial market, especially in the investment process. Shanghai and Shenzhen A shares have obvious cross-herding effect on US and Hong Kong shares in the low volatility zone system. The study found that the more funds involved in stock trading, the more likely herding behavior will occur. And the larger the size of the stock, the less likely it is to herd behavior (Tang Changbi and Peng Geng, 2014). Chinese scholars have tested

the herding effect in the stock market by static CCK model and found that herding effect is common in Shanghai and Shenzhen stock markets and Taiwan Province stock markets, especially in the falling stage. However, no herding effect has been found in Hong Kong stock market (Zheng Ting Guo and Ge Houyi, 2021).Although the personal information obtained by each investor in the investment process is different from each other, the herding effect can have a strong psychological impact on the investors, which may cause the investors to follow the public to make investments and lose certain personal judgment, which has a certain impact on the stability and efficiency of the market and has a greater impact on the decision-making of the investors. Therefore, the assumption is made:

H1: Herd effect factors have a positive impact on green investment behavior

(2) Local Preference Factors and Green Investment Behavior. Local preference is a common and important financial phenomenon in modern financial markets. Poterba(1991) first studied the five largest stock markets in the world at that time from a geographical perspective as early as last century, and found that they all showed strong local preference. Investors will have more optimistic market expectations for their own local markets and show certain geographical convergence in their investment behavior. Research shows that the impact of local preferences on stock returns depends on investor sentiment (Yang Xiaolan et al., 2016). When investors hold positive emotions, local preference has a significant positive impact on the securities yield, while the negative impact is significant. Although local preferences should be overcome as much as possible most of the time, this is still one of the important factors affecting investors' investment behavior and the following assumptions are made:

H2a: Local preference factors have a positive impact on green investment behavior

H2b: Local preference factors have a negative impact on green investment behavior

2.1.2 Other Factors

At present, China is paying more and more attention to the important role that enterprises may play in environmental protection, energy conservation and emission reduction as social actors. Through empirical testing, it is found that there are deviations related to their own psychological factors in the investment decision-making process of public investors, and these deviations have a major impact on the investment behavior of public investors (Hoffmann, 2014). Market environment, policies and corporate environmental behavior will also affect the investment behavior of public investors. At present, there are a group of such investors, who value their values more when investing than the return on investment, for example, whether the company has done anything in social responsibility, environmental protection and other aspects (Bauer, 2015). A considerable number of investors do not have a correct and objective understanding of themselves, and often overestimate their abilities when making actual investments.

(1) Corporate Image Factors and Green Investment Behavior. Corporate image, as an overall impression of the investing public in the process of contact with the enterprise, is an important basis for investors, especially green investors, to decide their investment behavior. Enterprises with poor environmental performance are more likely to arouse public investors' antipathy and public concerns about investing in the enterprise. Considering the profitability and safety of investment funds, investors pay more attention to whether the environmental performance of the target company determines the profitability and safety of the company (Gao Honggui, 2010). On the other hand, the harm or benefit caused by an enterprise's environmental behavior has a direct impact on the public, so both investors and the public need to disclose the environmental information of the enterprise. For public investors, the Company's bad environmental behavior will not only bring investment risks to investors but also may harm society. In the past, there has been a precedent of large-scale selling of shareholders due to the Company's environmental pollution behavior (Lv Jun 2013). Therefore, we believe that the Company's image has a certain correlation with the investors' green investment behavior, and put forward the following assumptions:

H3: Corporate image factors have a positive impact on green investment behavior.

(2) Policy Factors and Green Investment Behavior

In this paper, the policy factors mainly refer to the government's relevant policies on environmental protection and regulatory measures. The green securities market with government policy participation will have a certain risk aversion effect on the investment behavior of individual investors. At the same time, the perfect financial market system and rich investment channels also affect the investment behavior of individual investors. Scholars study the linkage among energy policy, technological innovation, trade openness, economic development, and sustainable development, and conclude that politicians' focus on formulating an appropriate energy policy mix is the key to achieving a green and clean environment without damaging the economy (Wang, 2023). To sum up, policy factors may have a certain degree of impact on green investment behavior. Therefore, we make the following assumptions:

H4: Policy factors have a positive impact on green investment behavior.

(3) Environmental awareness factors and green investment behavior

With the environmental pollution problem becoming more and more serious and people's awareness of environmental protection increasing, people from all walks of life pay more and more attention to the environmental protection problem. At the same time, there are many precedents of stock market turbulence caused by environmental problems. The Bauer(2015) study points out that investors' different environmental awareness will lead to different green investment behaviors. At the same time, he found that some investors would pay more attention to their social responsibilities and values than their investment income. Therefore, we believe that investors' environmental awareness and responsibility for environmental protection behavior will have a certain degree of impact on individual investors' investment behavior. Therefore, we make assumptions:

H5: Environmental awareness factors have a positive impact on green investment behavior.

(4) Media Information Factors and Green Investment Behavior

Media information is the most important information source for investors to make investment decisions. At the same time, in addition to reporting, media information will also play a role in publicity and guidance. Information disclosed by media will not only affect investors' investment decisions but also may cause certain fluctuations in stock prices, especially in some famous media (Morris, 2003). Through structural equation model research, scholars have shown that external factors such as media and financial institutions' reports and comments will have a certain impact on public investors' investment decisions. Therefore, media information has a high correlation with investors' investment behavior (Liang Yunyun, 2009), so we put forward the following assumptions:

H6: Media information factors have a positive impact on green investment behavior.

Pollution factors in a residential area and green investment behavior

With the continuous improvement of people's quality, public investors have not only considered the economic benefits as a factor when investing. The long-term or serious pollution problems in the areas where they live make people with increasing awareness of environmental protection have a higher awareness of environmental protection and make personal decisions based on fully understanding personal needs and environmental information. Investors no longer only take a one-sided view of the economic benefits of the enterprise but have a certain social responsibility to comprehensively consider their investment behavior. We, therefore, make the following assumptions:

H7: The factors of residential pollution have a positive impact on green investment behavior.

3. Research Design

3.1 Questionnaire Design and Data Collection

The eight factors mentioned in the previous hypothesis are obtained through literature reading, which are individual characteristics, conformity effect, local preference, environmental awareness, media information, the environmental pollution level of the residence, policy factors, and company image. In addition to the qualitative analysis of the problem design of individual characteristics, the other seven factors were analyzed quantitatively with the Likert scale. There are five types of options: completely disagree, disagree, uncertain, agree, and fully agree, with scores of 1-5 respectively. The

questionnaire was released through the questionnaire star, and the audience was individual investors of all ages.

Individual characteristics describe individual investors from gender, age, monthly income, and education level. The following table shows the categories of individual characteristics and their assignments:

Table 1. Individual characteristics

variable	category	assignment
Gender	male	1
	female	2
age group	18-30	1
	31-50	2
	Over 50	3
monthly income	2000-5000	1
	5000-10000	2
	Over 10000	3
Education	high school	1
	undergraduate	2
	master	3
	doctor	4

Table 2. Factor Variables

Variable name	Variable code	Variable category
Green investment intention	factor8	Interpreted variable
Herd Effect	factor1	Explanatory variable
Local preference	factor2	
environmental awareness	factor3	
Media information	factor4	
Environmental pollution level of the residence	factor5	
Policy factors	factor6	
corporate image	factor7	
Gender	gender	control variable
age group	age	
monthly income	income	
Education	education	

The herd effect, also known as the herding effect, refers to the tendency of people to invest blindly. This paper sets five questions to quantitatively study the degree of herd effect in green investors. Local preference means that investors are more inclined to invest in local, domestic, or familiar stocks. This questionnaire sets 7 questions to study green investors' preference for local stocks from this dimension. Environmental awareness studies whether green investors make green investments because of their macro sense of responsibility. This questionnaire is set up from two aspects, which are conducive to social development and sustainable development. Media information studies the impact of public information and hot news on green investors' investment decision-making behavior. This questionnaire is set up from the perspective of whether to conduct information consultation, whether to follow fund managers' investment, and whether to exaggerate the information related to stocks that support them. The level of residential environmental pollution studies whether the local environmental level of investors affects the tendency of investors to green investment, and sets the problem from three perspectives of residential PM2.5, noise pollution, and sewage discharge. Policy factors study whether the government's introduction of relevant environmental protection policies will, to some extent, increase green investment behavior, promote the development of a green

economy and facilitate the development of a green securities market. Even though the return is not high, investors are still willing to make green investments. Corporate image studies the impact of listed companies' public disclosure of environmental-related information and taking environmental protection measures on investors' green stock investment, and whether investors are willing to invest in listed companies with less short-term returns of green behavior and environmentally friendly projects. The green investment intention construction method is a new variable generated by averaging the scores of the first seven factors. The following table shows the categories and variable codes of each factor.

3.2 Ordered Logistic Regression Analysis

This paper uses multiple-ordered logistic regression analysis to explore the impact of various factors on green investment behavior. It is a regression model based on cumulative probability, which is split into multiple binary dependent variables according to ordered multi-classification variables, fitted with multiple binary logistic regression, and constructed. The ordered logistic model is:

$$\text{logit}\left[P\left(Y \le j\right)\right] = \beta_0 + \sum_{k=1}^{7} \beta_k x_k + \boldsymbol{\gamma}\mathbf{controls} + \varepsilon \tag{1}$$

Where P is the probability of the predicted event. The model includes a classified dependent variable and several independent variables, reflecting the linear influence of m independent variables on the dependent variable. The parallelism test is conducted for each factor. The original hypothesis of the test is that the model meets the parallelism test. After passing the test, the model likelihood ratio test is conducted to analyze the effectiveness of the whole model. The original hypothesis is that the regression coefficient of the model is 0. The sample likelihood function is:

$$\text{L} = \prod_{i=1}^{n} P_i^{y_i} (1 - p_i)^{1-y_i} \qquad \text{(i=1,2,...,n)} \tag{2}$$

Finally, the prediction results and accuracy of the whole model are evaluated. If the regression coefficient of each factor in the model is significantly non-zero, it means that each factor has a significant impact on green investment willingness, thus driving green investment behavior. In addition, this paper uses LASSO regression analysis to eliminate the potential collinear relationship between various factors.LASSO regression obtains a refined model by constructing a penalty function to compress the regression. It is a biased estimation for processing data with complex collinearity. It can be used to exclude the variables with collinearity and nonsignificance, to preliminarily screen the driving factors affecting investors' green investment, and to rank the variable coefficients to identify the factors with strong influence.

3.3 Relationship Model of Green Investment Drivers

The structural equation model consists of a measurement model and a structural model, which are represented by three matrix equations:

$$\eta = \text{B}_\eta + \Gamma\xi + \zeta \tag{3}$$

$$\gamma = \Lambda\nu + \varepsilon \tag{4}$$

$$\chi = \Lambda_\chi + \delta \tag{5}$$

Equation (3) is the structural model part, which specifies the causal relationship between the implicit exogenous variable and the implicit endogenous variable assumed in the model.BIt represents the matrix of effect coefficient of recessive endogenous variable versus recessive endogenous variable, ΓIt represents the effect coefficient matrix of the recessive exogenous variable to recessive endogenous variable,ζRepresents a vector composed of residual terms. Equations (4) and (5) are part of the measurement model, which specify the relationship between implicit endogenous variables and explicit endogenous variables, as well as the relationship between implicit exogenous variables and explicit exogenous variables.$\Lambda_\gamma$andΛ_χRepresent the implicit variableηandξ regression coefficient of,εandδ explicit variableγandχ measurement error of.

4. Empirical Results

4.1 Descriptive Statistics

This questionnaire was released through the questionnaire star applet. In the face of social groups with rich investment experience, 354 questionnaires were collected in total, and 348 valid questionnaires were left after the invalid questionnaires were removed. The distribution of individual characteristics is shown in the following figure:

The gender proportion of the sample is balanced, 31.90% of the sample age is 18-30 years old, 39.08% is 31-50 years old, and 29.02% is over 50 years old, with a relatively balanced distribution; In the sample monthly income, 33.91% is 2000-5000, 38.51% is 5000-10000, and 27.59% is more than 10000. Most of the samples have bachelor's degrees, accounting for 44.25%, high school 32.18%, master's degrees 19.25%, and doctor's degrees 4.31%.

Table 3. Statistical Table of Personal Characteristics

factor	Maximum	minimum value	median	average value
Age	77	20	42	40.7
monthly income	32500	3000	6200	7612.7

Factor1	average value	standard deviation		average value	standard deviation
	3.563	1.138	Factor2	3.511	1.120
	3.871	1.138		3.629	1.096
	3.744	1.162		3.741	1.061
	3.563	1.146		3.563	1.110
	3.586	1.139		3.690	1.154
Factor3	3.638	1.152		3.807	1.068
	3.644	1.103		3.759	1.079
	3.790	1.110	Factor4	3.520	1.177
	3.652	1.160		3.704	1.142
Factor5	3.649	1.107		3.483	1.112
	3.598	1.081		3.503	1.145
	3.560	1.154		3.635	1.165
Factor7	3.624	1.128	Factor6	3.629	1.163
	3.540	1.085		3.560	1.128
	3.707	1.126		3.721	1.181
	3.787	1.111		3.612	1.093
	3.842	1.061			

From this, it can be seen that the decision values were significant, meaning that a total of 33 items had good distinctiveness, which should be retained.

4.2 Reliability Analysis Results

This paper makes a summary analysis of 37 questionnaire questions, further analyze the seven main driving factors, and conducts a reliability analysis respectively to explore the impact of the seven driving factors on individual green investment behavior.

It can be seen from the seven analysis result tables that the clonal Bach reliability coefficients of the seven factors are all around 0.8, which shows that the reliability of the questionnaire is very good, and it can be further analyzed and used.

Table 4. Kolumbach Reliability Coefficient Chart

influence factor	Cronbachαcoefficient
Factor1	0.866
Factor2	0.896
Factor3	0.844
Factor4	0.862
Factor5	0.795
Factor6	0.822
Factor7	0.839

4.3 Validity Analysis and Factor Analysis Results

The standard load coefficients of all factors meet this condition, and the degree of commonness is more than 0.6, indicating that the information on the research items can be effectively extracted. In addition, the KMO value is 0.950, greater than 0.6, and the data can be effectively extracted. The following table shows that the cumulative square interpretation rate after rotation is 65.527%>50%. It means that the amount of information on the research item can be effectively extracted.

Table 5. Table of Validity Indicators

influence factor	Interpretation rate of variance before rotation			Variance interpretation rate after rotation		
	Characteristic root	Variance explanation rate%	Cumulative%	Characteristic root	Variance explanation rate%	Cumulative%
factor1	12.517	37.929	37.929	4.467	13.537	13.537
factor2	1.854	5.618	43.547	3.321	10.065	23.601
factor3	1.757	5.325	48.872	3.284	9.951	33.553
factor4	1.620	4.909	53.781	3.071	9.307	42.860
factor5	1.458	4.419	58.200	2.718	8.236	51.096
factor6	1.326	4.019	62.219	2.615	7.923	59.019
factor7	1.092	3.308	65.527	2.148	6.508	65.527

The above table analyzes the factor extraction and the amount of information extracted from the factor. It can be seen from the above table that seven factors are extracted from the factor analysis, and the eigenvalue values are all greater than 1. The cumulative variance interpretation rate after rotation is 65.527%. It means that there is a strong correlation between research items and factors, and factors can effectively extract information.

4.4 Identification of Influencing Factors

Considering the interaction between various factors, these factors may have a relatively high correlation, so stepwise logistic regression and LASSO methods are used to identify the factors. Lasso regression is used to eliminate the impact of multicollinearity among variables. Among them, the green investment behavior index is the average value of all significant variables.

From the LASSO analysis table, it can be seen that all independent variables and control variables can explain 99.4% of the change in green investment willingness, so the seven selected independent variables can be used for data analysis and processing in the next step. The company image takes second place, and the media information, the environmental pollution level of the residents, and the policy factors are the least important.

Table 6. Lasso Analysis result

variable	coefficient	Standard error	T value	P value
constant	0.225	0.013	17.510	0.000**
Factor1	0.140	0.003	52.883	0.000**
Factor2	0.206	0.003	66.870	0.000**
Factor3	0.110	0.002	46.077	0.000**
Factor4	0.139	0.003	51.104	0.000**
Factor5	0.077	0.002	35.876	0.000**
Factor6	0.107	0.002	44.595	0.000**
Factor7	0.145	0.003	48.866	0.000**
Number of observations				
R^2	0.994			
Adjustment R^2	0.994			
F value	3071.619***			

Table 7. Ordered logistic regression table

factor	regression coefficient	P value	factor	regression coefficient	P value
Factor1	0.663	0.003	Factor4	0.582	0.006
	0.457	0.052		0.710	0.002
	0.677	0.002		0.709	0.001
	0.678	0.001		0.465	0.028
	0.656	0.001		0.348	0.099
Factor2	0.744	0.000	Factor5	0.673	0.002
	0.387	0.078		0.551	0.010
	0.634	0.014		0.456	0.024
	0.844	0.000	Factor6	0.608	0.002
	0.361	0.099		0.729	0.001
	0.637	0.011		0.530	0.009
	0.432	0.086		0.651	0.003
Factor3	0.307	0.155	Factor7	0.364	0.079
	0.584	0.008		0.694	0.001
	0.855	0.000		0.840	0.000
	0.378	0.073		0.738	0.002
				0.346	0.134

From the above table, it can be seen that most of the questionnaire questions have a certain contribution to green investment willingness. To sum up, through LASSO regression analysis and ordered logistic regression analysis of the questionnaire data, the team solved the identification and collinearity problems of the seven main factors driving personal green investment, verified the correctness of the seven main drivers, and was conducive to the continuation of the study.

4.5 Action Path Analysis

Through reading the literature, the author puts forward reasonable research assumptions and establishes a structural equation. The eighth-factor green investment willingness is a new variable generated by the average score of the first seven factors, which comprehensively describes the intensity of green investment willingness of individual investors. Put forward the hypothesis of causality between potential variables and build a structural model. Test the path coefficient, get the effect value between the potential variables, and analyze the structural equation model to verify

whether the hypothesis is tenable. The path analysis is carried out for all existing paths of the eight factors, and the following action path diagram is obtained.

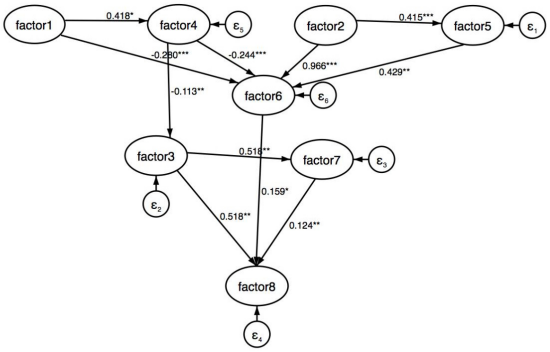

Figure 1. Structural equation path diagram

The two types of paths are analyzed in depth as follows:

(1) Herd effect ->media information ->policy factors ->green investment willingness: Herd effect has a significant positive impact on media information. Since the sign of the path coefficient is consistent with that of the standardization coefficient, the path effect is negative, but the herding effect on green investment willingness is positive. Herd effect will promote the spread of media information, but the news released by the media distracts the attention attracted by the policy release, which ultimately leads to the negative impact of the whole path on green investment willingness.

(2) Herd effect ->media information ->environmental awareness ->green investment willingness: The dissemination of media information has reduced the public's awareness of environmental protection, which may be because media-oriented information tends to deviate from the nature of short-term benefits and long-term green investment, thus leading to the contradiction between the two.

(3) Herd effect ->policy factors ->green investment willingness: The overall impact of this path is still negative, and the same reason is that people's desire for short-term profits leads to the herding effect, which is different from the goal of green governance of the securities market in the policy.

(4) Herd effect ->media information ->environmental awareness ->company image ->green investment intention: the total impact effect of this path is negative, because the release of media information harms environmental awareness, leading to a negative standardization coefficient.

(5) Local preference ->policy factors ->green investment willingness: The impact of the overall path is positive, which is the same direction as the impact of local preference on green investment willingness.

(6) Local preference ->environmental pollution level of residence ->policy factors ->green investment willingness: The environmental pollution level of residence also has a positive impact on policy factors. The total effect is positive, which is the same direction as the effect of local preference on green investment willingness.

5. Conclusion and Suggestions

It can be seen from the road map that environmental awareness, policy factors, and corporate image have a significant positive impact on green investment willingness, and the path of action is positive. All the influence paths led by herding effect showed negative effects, and all the influence paths led by local preference showed significant positive effects.Finally, policy factors connect the largest number of influence paths and are important factors that affect the green investment behavior of individual investors.

According to the road map, the following suggestions are proposed from the macro and micro levels:

(1) From the perspective of individual psychological factors, herding effect and local preference are both behavioral financial factors, but their influence mechanisms are different.Individuals should try their best to avoid being affected by the herd effect and have their own independent judgment on investment strategies, but it is recommended that they choose familiar and local listed companies to invest.

(2) From the perspective of listed companies, the better the company's green governance image is, the stronger the public's willingness to invest in the company and the more green investment behaviors are.Therefore, listed companies can increase the number of good green behaviors disclosed and environmental protection projects.

(3) From the national policy level, the release of green policies has a significant and direct positive impact on green investment willingness and green investment behavior.The green policy related designs released by the state, such as green finance and carbon trading, play a significant role in driving the green investment behavior of individual investors, so the policy factor is the hub driver of green investment behavior.

References

[1] Gao Honggui. Research on Environmental Information Disclosure of Modern Corporate Social Responsibility Performance-Based on the Perspective of "Ecological Social Economic Man" Hypothesis [J]. Accounting Research, 2010 (12): 29-33.

[2] Kong Danfeng, Feng Tao, Qin Dazhong. Analysis of individual investment behavior [J]. Financial Accounting, 1996 (04): 29-32.

[3] Ethan, Li Jie. Analysis of individual investment behavior in the stock market and strategic recommendations-based on behavioral finance perspective [J]. Financial Economics, 2013 (24): 91-92.

[4] Li Helong, Feng Chune. Research on the Relationship between Investor Sentiment and Stock Index Fluctuation Based on EEMD [J]. Systems Engineering Theory and Practice, 2014 (10): 2495-2503.

[5] Tang Chang 'an, Peng Geng. Upper and lower bound estimation of herding behavior level of China fund and research on its influencing factors [J]. China Soft Science, 2014 (09): 136-146.

[6] Ma Yanbo. Research on the Driving Factors of Green Investment Behavior of Enterprises [J]. Environmental Economics Research, 2021, 6 (02): 57-79.

[7] Qin Li, Meng Yao. Green Investment and Its Development Direction [J]. Contemporary Economic Research, 2006 (06): 18-22+73.

[8] Yang Xiaolan, Shen Hanbin, Zhu Yu. Local Preference, Investor Sentiment and Stock Returns: Empirical Evidence from Online Forums [J]. Financial Research, 2016 (12): 143-158.

[9] Yao Lushi, Wu Ningning. Research on institutional and individual herding behavior based on LSV model [J]. China Management Science, 2018, 26 (07): 55-62.

[10] Zheng Ting-guo, Ge Hou-yi. The time-varying study on the regional transfer of herding effect in China stock market [J]. Financial research, 2021.

[11] Antonietti R, Marzucchi A. Green tangible investment strategies and export performance: A firm-level investigation [J]. Ecological economics, 2014, 108:120-161.

[12] Bauer R, Smeets P. Social identification and investment decisions[J]. Journal of Economic Behavior & Organization, 2015, 117:121-134.

[13] Coval J D, Moskowitz T J. Home bias at home: Local equity preference in domestic portfolios[J]. The Journal of Finance, 1999, 54(6): 2045-2073.

[14] Hoffmann A O I, Post T. Self-attribution bias in consumer financial decision-making: How investment returns affect individuals' belief in skill[J]. Journal of Behavioral and Experimental Economics, 2014 (52): 23-28.

[15] Wang Chenrong. China's energy policy and sustainable energy transition for sustainable development: green investment in renewable technological paradigm.[J]. Environmental science and pollution research international, 2023.