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A Study on Relationship Between Personality and the Duration of Financial Product Purchases

Xiwen Zheng[1,a,*]

[1]*Guangzhou Tianhe Middle School, Guangzhou, 510665, China*
a. Zheng_XwX@163.com
**corresponding author*

Abstract: The purpose of this study is to analyze the relationship between personality and the duration of financial product purchases. Based on the four dimensions of MBTI model personality, a certain sample is selected for investigation. SPSS is used to analyze the correlation and significance of respondents' willingness to purchase financial products for duration. Survey data shows that the significance of E/I, N/S, J/P dimensions all bigger than 0.05, and the significance is smaller than 0.05 on the T/F dimension. So the E/I, N/S, and J/P dimensions have almost no impact on the purchase duration of financial wealth management products. The T/F dimension has a slight impact on the purchase duration of financial wealth management products.

Keywords: MBTI, personality, investment, financial products

1. Introduction

Traditional finance sets people as completely "rational people" who can use rational thinking to compare investment and returns in any situation, thus making decisions to maximize utility [1]. Rational investors are willing to take on certain risks for the sake of maximizing profits, or abandon high-risk investments for stable returns. But in reality, it is difficult for investors to achieve complete rationality and make decisions that maximize profits. So investors' attitudes towards investing in financial products have differentiated into different types, and their attitudes towards investment may be influenced by various factors, such as personality.

After learning about the relationship between investor personality and investment attitude, financial product organizations and institutions can recommend different financial products for different investors. Investors can find the most suitable financial product by studying their own personality.

Is the purchasing attitude of investors towards financial products related to individual personality types? To answer this question, this study selected the Myers Briggs Type Indicator (MBTI) as a tool for analyzing investor personality types. This article will focus on individual investors and explore the relationship between personality types and attitudes towards purchasing financial products through four dimensions.

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2. Literature review

2.1. Personality

Personality is a psychological characteristic formed by a stable attitude system and corresponding behavioral style of a person. It's a reflection of a person's qualities, behavioral patterns, moral strength, etc. It is a personality style gradually formed in social life practice, which determines the way a person behaves and affects their interpersonal relationships, work efficiency, and work efficiency.[2] So far, there have been many studies on personality, such as Enneagram, Five Factor Personality Test, DISC, Cattell's Sixteen Personality Factor, HEXACO and so on. In addition to the above, there are also the famous MBTI personality theories among the top ten classic personality theories.

2.2. MBTI

The Myers-Briggs Type Indicator (known as MBTI or 16personalities) is a theoretical model of personality type developed by American author Isabel Briggs Myers and her mother, Katherine Cook Briggs.[3]

The index is based on the eight psychological types divided by the Swiss psychologist Carl Jung, thus putting the psychological type theory of personality into practice, after more than 20 years of research, compiled into the Myers-Briggs type indicator. On the basis of the concepts of dominant and inferior functions, dominant and subordinate functions of personality, Miles further proposed the concept of functional hierarchy, effectively determined the order of functional hierarchy for each type, and proposed the lifelong development theory of types, forming four dimensions.

2.3. Four Personality Dimensions in MBTI

MBTI divides personality into four dimensions that, when combined, define the personality type: Energy, Mind, Nature, Tactics.[4] This study will collect four dimensions of information from respondents and investigate the relationship between each dimension and their willingness to purchase financial products.

2.3.1. Energy

Extraverted(E-type) individuals prefer group activities and get energized by social interaction. They enjoy experiencing new things and may be more inclined to interact with the people and environment around them. E-type personalities are usually good at expressing their thoughts and emotions.

Introverted(I-type) individuals prefer solitary activities and get exhausted by social interaction. They tend to be quite sensitive to external stimulation in general. They may prefer to be accompanied by their own thoughts and feelings, enjoying personal reflection time.

2.3.2. Mind

Observant(S-type) individuals are highly practical and down-to-earth. They tend to have strong habits and focus on what is happening or has already happened. When it is necessary to quickly solve specific problems, they often appears more prominent.

Intuitive(N-type) individuals are very imaginative and curious. They prefer novelty over stability and focus on hidden meanings and future possibilities. They are good at aggregating fragmented information into a more complete picture, in order to understand and solve problems.

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2.3.3. Nature

Thinking(T-type) individuals focus on objectivity and rationality. They are skilled at quickly identifying key points from a large amount of facts and data, and accurately evaluating and quantifying value and priorities.

Feeling(F-type) individuals are sensitive and emotionally expressive. They are more empathic and less competitive than Thinking types, and focus on social harmony and cooperation. They will consider people's feelings and relationships more and make decisions based on their own or others' hearts.

2.3.4. Tactics

Judging(J-type) individuals are decisive and highly organized. They tend to focus on planning and control, preferring a structured and stable lifestyle. They tend to make decisions early because they enjoy quickly grasping the situation and taking action.

Prospecting(P-type) individuals are very good at improvising and spotting opportunities. They tend to be flexible and prefer keeping their options open. They often postpone decisions because they want to consider all possible options. P-type personalities love adventure and try to explore different options, seeking creative possibilities.

2.4. Financial Products

Financial Products refer to various carriers of the financial communication process, including currency, gold, foreign exchange, securities, etc. That is to say, these financial products are the buying and selling targets of the financial market. The supply and demand sides form financial product prices, such as interest rates or returns, through market competition principles, and ultimately complete transactions to achieve the purpose of financing. Stocks, futures, options, policies, etc. are called Financial Assets, also known as Financial Instruments, or Securities. Financial products are products of the financial society; The financial society has gradually developed on the basis of agricultural society and industrial society.

2.5. Summarize

In summary, there has been professional research on MBTI and financial products so far, but there is currently no research on the Influence of the Four Dimensions of MBTI Professional Personality Test on the Attitude towards Purchasing Financial Products, which is the research gap. Next, this study will elaborate on the process of studying this issue and draw relevant conclusions.

3. Research objects and methods

3.1. Research objects

In order to complete this experiment, we conducted an online questionnaire survey on random individuals over a period of five days from October 30th to November 3rd. A total of 195 questionnaires were distributed and 195 were collected, with no errors, omissions, or poor responses. Finally, 195 valid questionnaires were obtained. Among random individuals, 80 people are between the ages of 40 and 50, accounting for 41% of the total, which is the largest proportion. Out of 195 people, there are 89 males and 106 females. Among them, 107 people hold university degrees, accounting for 54%.

The largest proportion of respondents have no experience in purchasing financial products or have purchased them for more than 8 years. The maximum preferred investment period is 1-3 years, with

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87 people, followed by less than one year, with a total of 48 people. Most people are willing to invest 10% -25% of their salary, with 73 people in this sector. Among all the respondents, 121 are risk averse, do not want any principal loss, and accept low or no returns; The remaining 74 people seek high returns and are willing to take on certain risks and fluctuations in returns.

From the MBTI dimension, in the E/I dimension, there is 84 people for Type I and 111 people for Type E. In the S/N dimension, there is 143 people for S-type and 52 people for N-type. In the T/F dimension, there is 145 T-type people and 50 F-type people. In the J/P dimension, there is 138 people for Type J and 57 people for Type P.

3.2. Research methods

The questionnaire is produced and distributed through the Questionnaire Star website, which is a professional online questionnaire survey, examination, evaluation, and voting platform. The survey questionnaire was self-made by this study and is divided into three parts. The first part is the basic information of the respondents, with a total of 3 questions to understand their gender, age, and educational background. The second part is a four dimensional MBTI, with explanations for the definitions of each dimension. The interviewees will evaluate it on their own, with one question each for a total of four questions. The third part is to evaluate the willingness and habits of respondents to purchase financial and wealth management products, with four questions. There are a total of 11 questions in the entire survey questionnaire.

3.3. Data collection and processing

After collecting the questionnaire through the Questionnaire Star website, SPSS 27.0 was mainly used for data statistics and analysis. The mean test tool of SPSS analysis was used to compare the four different dimensions of score and MBTI personality, to examine the correlation between personality dimension and financial product purchase intention as well as the significance of the difference in scores between the two aspects of the same dimension.

4. Empirical result

This study used the four dimensions of MBTI as independent variables and financial product investment duration intention as dependent variables. The analysis in SPSS test was used to analyze the correlation and significance (P) of the variables. Meanwhile, dummy variables are added. This study used dummy variables to set I-type personality to 1 and E-type personality to 0; set N-type personality to 1 and S-type personality to 0; set T-type personality to 1 and F-type personality to 0; set J-type personality to 1 and P-type personality to 0.[5]

In addition, the original hypothesis(H0) refers to the absence of significant differences or effects between the compared groups or treatments. H1 refers to significant differences or effects between the groups or treatments being compared. When the significant is in critical region (usually $p<0.05$), the H0 can be rejected. Otherwise, H0 cannot be rejected.[6]

Overall, the E/I, N/S and J/P dimensions have nearly no correlation with scores, while the T/F dimension have a weak positive correlation with scores.

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4.1. E/I dimension

Table 1: Descriptive Statistics of E/I Dimension

Descriptive Statistics			
	Mean	Std. deviation	number of cases
Intended investment duration	2.9295	2.23104	195
E/I	.57	.496	195

Table 2: Correlation Analysis of E/I Dimension

Correlation Analysis			
		Intended investment duration	E/I
Pearson correlation	Intended investment duration	1.000	.074
	E/I	.074	1.000
significance (single tailed)	Intended investment duration	.	.152
	E/I	.152	.
number of cases	Intended investment duration	195	195
	E/I	195	195

The correlation coefficient between the term of intention to invest and E/I is 0.074, which means it has weak (nearly no) positive correlation, with a significance of 0.152(>0.05). So H0 cannot be rejected and there is nearly no correlation between the term of intention to invest and E/I.

Table 3: ANOVA[a] of E/I Dimension

ANOVA[a]						
Model		Sum of Squares	df	mean square	F	P
1	regression	5.305	1	5.305	1.066	.303[b]
	residual	960.338	193	4.976		
	total	965.643	194			
a. Dependent variable:Intended investment duration						
b. independent variable: E/I						

The significance is 0.303(>0.05). So H0 cannot be rejected and there was no significant difference in the treated groups.

4.2. N/S dimension

Table 4: Descriptive Statistics of N/S Dimension

Descriptive Statistics			
	Mean	Std. deviation	number of cases
Intended investment duration	2.9295	2.23104	195
S/N	.27	.443	195

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Table 5: Correlation Analysis of N/S Dimension

Correlation Analysis			
		Intended investment duration	S/N
Pearson correlation	Intended investment duration	1.000	-.027
	S/N	-.027	1.000
significance (single tailed)	Intended investment duration	.	.353
	S/N	.353	.
number of cases	Intended investment duration	195	195
	S/N	195	195

The correlation coefficient between the term of intention to invest and N/S is -0.027, which means it has weak (nearly no) negative correlation, with a significance of 0.353(>0.05). So H0 cannot be rejected and there is nearly no correlation between the term of intention to invest and N/S.

Table 6: ANOVA[a] of N/S Dimension

ANOVA[a]						
Model		Sum of Squares	df	mean square	F	P
1	regression	.718	1	.718	.144	.705[b]
	residual	964.925	193	5.000		
	total	965.643	194			
a. Dependent variable:Intended investment duration						
b. independent variable: S/N						

The significance is 0.705(>0.05). So H0 cannot be rejected and there was no significant difference in the treated groups.

4.3. T/F dimension

Table 7: Descriptive Statistics of T/F Dimension

Descriptive Statistics			
	Mean	Std. deviation	number of cases
Intended investment duration	2.9295	2.23104	195
T/F	.74	.438	195

Table 8: Correlation Analysis of T/F Dimension

Correlation Analysis			
		Intended investment duration	T/F
Pearson correlation	Intended investment duration	1.000	.307
	T/F	.307	1.000
significance (single tailed)	Intended investment duration	.	.000
	T/F	.000	.
number of cases	Intended investment duration	195	195
	T/F	195	195

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The correlation coefficient between the term of intention to invest and T/F is 0.307, which means it has weak positive correlation, with a significance of 0.00(<0.05). So H0 can be rejected and there is a correlation between the term of intention to invest and T/F.

Table 9: ANOVA[a] of T/F Dimension

ANOVA[a]						
Model		Sum of Squares	df	mean square	F	P
1	regression	90.868	1	90.868	20.048	.000[b]
	residual	874.775	193	4.533		
	total	965.643	194			
a. Dependent variable:Intended investment duration						
b. independent variable: T/F						

The significance is 0.00(<0.05). So H0 can be rejected and there was significant difference in the treated groups.

4.4. J/P dimension

Table 10: Descriptive Statistics of J/P Dimension

Descriptive Statistics			
	Mean	Std. deviation	number of cases
Intended investment duration	2.9295	2.23104	195
J/P	.71	.456	195

Table 11: Correlation Analysis of J/P Dimension

Correlation Analysis			
		Intended investment duration	J/P
Pearson correlation	Intended investment duration	1.000	.016
	J/P	.016	1.000
significance (single tailed)	Intended investment duration	.	.410
	J/P	.410	.
number of cases	Intended investment duration	195	195
	J/P	195	195

The correlation coefficient between the term of intention to invest and J/P is 0.016, which means it has weak (nearly no) positive correlation, with a significance of 0.410(>0.05). So H0 cannot be rejected and there is nearly no correlation between the term of intention to invest and J/P.

Table 12: ANOVA[a] of J/P Dimension

ANOVA[a]						
Model		Sum of Squares	df	mean square	F	P
1	regression	.259	1	.259	.052	.820[b]
	residual	965.384	193	5.002		

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Table 12: (continued).

	total	965.643	194			
a. Dependent variable:Intended investment duration						
b. independent variable: J/P						

The significance is 0.820(>0.05). So H0 cannot be rejected and there was no significant difference in the treated groups.

5. Discussion

After multiple sets of data analysis, it can be seen that there is a significant and correlation between the duration of intention investment and the T/F dimension of personality analysis. These findings were obtained through extensive examination of various datasets and statistical indicators, taking into account multiple variables and factors. This indicates that there is a correlation between the duration of investment and whether personality traits emphasize objective logical analysis.

6. Conclusion

These findings indicate that there is an inherent relationship between the T/F dimension in individual personality types and investment behavior. Whether there is an objective logical analysis of the correlation between personality and the duration of intention to invest can be used to design wealth management products in the investment market, providing a certain degree of reference significance for improving the investment market environment.

However, there are still shortcomings in this experiment. Firstly, the sample size is still not large enough. The more samples, the more accurate the experimental results will be. Secondly, the subject's understanding of MBTI is not deep enough, and judgment may be incorrect during self-evaluation. More professional MBTI testing can be used instead of self-assessment. Finally, the number of questionnaire questions set is not large enough, and the information collected is relatively limited. In future research, more questions can be designed in the questionnaire to extract more detailed data.

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