

The Impact of Demographical Factors on Investment Decision: A Study of Vietnam Stock Market

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Abstract

Apart from the market situation, the investment decisions on stock markets base on the mentality of investors at the decision-making time. Each group of people with common characteristics may have the same or different thinking. This study aims to find out whether there is the discrepancy among classified groups of investors or not (the discrepancy in the risk taking investment decisions between male and female, in same age group, education, investment experience, income and marital status) Using Chi-square test, it is illustrated that male have more willingness to take risks in making investment decision than female; the elderly or retirement investors make the options of not taking risk; the investors with five-year-or-more investment experience often take higher risks than the others; the investors of different income levels have the same ability to take risk; the single investors show a tendency to take higher risks than married investors.

Keywords: stock market, mentality, risk, investment decision and demographical factors

1. Introduction

Vietnam stock market was established in 2000, however, its booming time was in 2007 which pointed the landmark with the VNINDEX reaching 1170.6 points on 12nd March 2007, and then it continuously showed a decreasing trend and the lowest VNINDEX of 236 points on 24th February 2009. The security index has recently fluctuated around 500 points.

The growth of security index is one of indices showing the development of enterprises in particular and the whole economy in general. Each investor participating into the market plays an important role in this development, investment decisions have been made on the market signs, objective specific characteristics which influence the investor's mentality. Investors participate into the market to maximize the return based on the effective market theory (Fama, 1970). Besides maximized return expectation, Kahneman & Tversky took into consideration of psychological factors, emotion and risk which also influence on the investor's decision making (totally having a counter idea to Fama's theory) called the behavioural finance theory (Kahneman & Tversky, 1979).

Apart from the behavioural finance theory, the herd psychology (Barber, Odean, & Zhu, 2009); over confidence (Shiller, 2000; Glaser & Weber, 2007); excessive optimism (Gervais, Heaton, & Odean, 2002); as well as risk-avoiding psychology (Shefrin & Statman, 1985) also impact on the investor's decision. Besides the market information, price expectation, demographical factors influence significantly on the investor's decision. There have been a number of studies on the association of demographical factors and investment decisions, namely the different decisions between male and female (Bajtelsmit & Bernasek, 1996); Gender and over confidence (Barber & Odean, 2001); Gender, marital status, age, living area, income, career and professional qualification (Jain & Mandot, 2012).

Different genders have psychological difference in making investment decisions, female are often more conservative than male (Bajtelsmit & Van Derhei, 1996; Hinz, McCarthy, & Turner, 1996). And female are not keen on making risky investment decisions (Bajtelsmi, Jianakoplos, & Bernasek, 1996). Female often make safe decisions rather than run risks even when they are given reasonable advice or they think that they can get higher return if they take risks. Besides, male often trade much more than female (Barber & Odean, 2001).

There are a number of studies in demographical factors taken up in many countries and their findings are different due to the characteristics of each stock market. For instance, Jain and Mandot concluded that gender had no effect on the investor's decision while Bajtelsmit and Van Derhei; Hinz, McCarthy and Turner discovered that women always make a more cautious decision than men do because of the risk-avoiding psychology.

Another study taken up by Jain & Mandot in Rajasthan stock market in India shows that out of demographical factors, age, marital status, income and educational qualification, professional qualification impact on stock investment decision, gender and living area have no effect on the investor's decision (Jain & Mandot, 2012).

There are some studies in behavioural finance on Vietnam Stock Market. Particularly, (Nguyen, 2012) found out the association of macroeconomic factors and investors' behaviour and (Le, 2009) brought out the behavioural theory on Vietnam stock market. However, these studies only focus on theory and no one has studied the influence of demographical factors on the investors' decision. Therefore, this study finds out the impact of demographical factors on the investors' decision.

2. Methodology

2.1 Study Design

The study has been designed based on the interviews of investors on Vietnam Stock Market in August and September 2013. The questionnaire has been designed in order to evaluate the impact of demographical factors on the investors' decision (the willingness to take risks). The demographical factors include gender, age, stock investment experience, educational qualification, income level, marital status.

2.2 The Object of Study

The objects of study consist of investors on Hanoi and Ho Chi Minh Stock Exchange of Vietnam Stock Market. The studied objects are both male and female at different ages, because the objective diversity makes the study much more significant for each object.

2.3 The Method to Analyse the Data

The study aims to find out the association of demographical factors and investment decisions due to the fact that demographical factors are inner factors impacting on the investors' decision. All studied variables are nominal and ordinal, therefore, Chi-square test will be used to analyze the difference and the influence of variables on investors' decision (Aczel, 2008; Kenney & Keeping, 1951).

Chi-square test is used to test the following hypothesis:

Ho: two variables are independent.

H1: two variables are dependent.

Apart from Chi-square test, some other methods are used to evaluate the association of two studied variables, such as Cramer V, Coefficient of contingency or Lambda. The hypotheses of these three methods are similar to the hypothesis of Chi-square test.

If P-value of the test is larger than 0.05 (the significant level of 5%), the Ho hypothesis will be accepted. In case P-value of the test is equal to or smaller than 0.05, two studied variables are dependent on each other.

3. Results

3.1 Inspecting the Relationship between Gender and Taking Risks in Making Investment Decisions

Table 1. Chi-square test results for gender

	Value	p-value
Pearson Chi-Square	12.492 ^a	.000
Cramer's V	.172	.000
Contingency Coefficient	.170	.000

Note. The results are Drawn by SPSS.

Because P-values of Chi-square test, Cramer's V and Contingency Coefficient are equal to 0.00 less than 0.05, there is some differences in the willingness to take risks of male and female. In order to compare the willingness level to take risks of male and female, the author uses the bidirectional frequency table to conclude that male is prone to take higher risks than female in making investment decisions (Table 2).

Table 2. The bidirectional frequency statistic table for gender

		Gender		Total
		Male	Female	
Risk	unwilling to take risks	80	122	202
	willing to take risks	125	95	220
Total		205	217	422

Note. The results are drawn by SPSS.

3.2 Inspecting the Relationship between Age and Taking Risks in Making Investment Decisions

Table 3. Chi-square test results for age

	Value	p-value
Pearson Chi-Square	66.822a	.000
Cramer's V	.398	.000
Contingency Coefficient	.370	.000

Because P-values of Chi-square test, Cramer's V and Contingency Coefficient are less than 0.05, there is difference in the willingness to take risks of different age groups. In order to investigate the decision making of different age groups, the author divided the investors into different age groups as follows: the group of less than 27 years old; the group of from 27 to 35 years old; the group of from 35 to 50 years old; and the group of 51 years old or over belonging to the elderly or retirement investors. The study shows that there is no willingness to take risks among the 51-year-old-or-over investor group (the rate of investors willing to take risks over investors unwilling to take risks is 13/77). The rates of taking risks among remaining groups are as follows: 47/33 for the group of less than 27 years old; 83/41 for the group of from 27 to 35 years old; 77/51 for the group of from 35 to 50 years old (Table 4).

Table 4. The bidirectional frequency statistic table for age

		age				Total
		under 27 years old	from 27 to 35 years old	from 35 to 50 years old	from 51 years old or more	
Risk	unwilling to take risks	33	41	51	77	202
	willing to take risks	47	83	77	13	220
Total		80	124	128	90	422

3.3 Inspecting the Relationship between the Number of Experience Years in the Stock Market and Taking Risks in Making Investment Decisions

Table 5. Chi-square test results for experience

	Value	p-value
Pearson Chi-Square	59.994a	.000
Cramer's V	.377	.000
Contingency Coefficient	.353	.000

The study indicates that there is the difference between the investors with different experience levels because of all p-values are less than 0.05. The objects are divided into following groups: the group of less than 2 years of experience; the group of from 2 to 5 years of experience and the group of more than 5 years of experience. Evaluating the rate of investors willing to take risks over investors unwilling to take risks proved that the group of more than 5 years of experience takes risks with the rate of 122/43; the rate for the group of less than 2 years of experience is 51/112; and the rate for the group of from 2 to 5 years of experience is 47/47, (Table 6).

Table 6. The bidirectional frequency statistic table for stock investing experience

		Exp			Total
		under 2 years	from 2 to 5 years	more than 5 years	
Risk	unwilling to take risks	112	47	43	202
	willing to take risks	51	47	122	220
Total		163	94	165	422

3.4 Inspecting the Relationship between the Educational Qualification and Taking Risks in Making Investment Decisions

Table 7. Chi-square test results for educational qualification

	Value	p-value
Pearson Chi-Square	2.442a	.295
Cramer's V	.076	.295
Contingency Coefficient	.076	.295

All p-values are larger than 0.05 illustrating that there is no difference in the willingness to take risks of investors with different educational qualification (the investors are divided into 3 groups: the investors with high-school education, the investors with university education and the investors with postgraduate education).

3.5 Inspecting the Relationship between the Income Level and Taking Risks in Making Investment Decisions

Table 8. Chi-square test results for income level

	Value	p-value
Pearson Chi-Square	.334a	.846
Cramer's V	.028	.846
Contingency Coefficient	.028	.846

The testing illustrated that investors with different income levels have the same investing psychology (income level is divided into following groups: the group with the income level of less than 5 million VND; the group with the income level of from 5 to 10 million VND and the group with the income level of higher than 10 million VND).

3.6 Inspecting the Relationship between the Marital Status and Taking Risks in Making Investment Decisions

Table 9. Chi-square test results for marital status

	Value	p-value
Pearson Chi-Square	81.098a	.000
Cramer's V	.438	.000
Contingency Coefficient	.401	.000

All p-values are less than 0.05 illustrating that there is difference in the investing psychology of the investors with different marital status. The investors includes 3 groups as follows: the group of single investors; the group of married investors; and the group of divorced investors. The testing results show that the single and divorced investor groups are prone to be much more willing to run risks (the rates of investors willing to take risks over investors unwilling to take risks of these two groups are 88/33 and 94/49 respectively), while the number for the married investor group is low of 38/120. (table 10).

Table 10. The bidirectional frequency statistic table for marital status

		Status			Total
		single investor	married investors	divorced investors	
risk	unwilling to take risks	33	120	49	202
	willing to take risks	88	38	94	220
	Total	121	158	143	422

The table shows that there is some difference among investors with different gender, age, investing experience and marital status in taking risks in trading stocks. The investors with different education qualification and income level have the same decision in taking risks in trading stocks.

3.7 Inspecting the Relationship between the Individual Investors in Hanoi and Ho Chi Minh Exchange and Taking Risks in Making Investment Decisions

Table 11. The Chi-Square test result for the stock exchange

	Value	p-value
Pearson Chi-Square	4.596	.032
Cramer's V	-.104	.032
Contingency Coefficient	.104	.032

Note. Results from SPSS.

All p-value less than are less than 0.05 illustrating that there is difference in taking risks in making investment decisions between individual investors in Hanoi and Ho Chi Minh exchange. The testing results show that the rate of individual is willing to take risks in Ho Chi Minh City (121/211) is higher than in Hanoi (99/211) (Table 11).

Table 12. The dimensional frequency statistics for the stock exchange

		Bezone		
		Ho Chi Minh city	Hanoi	Total
Risk	unwilling to take risks	90	112	202
	willing to take risks	121	99	220
Total		211	211	422

Note. Result from SPSS.

The statistic results show that individuals in Hanoi exchange tend to be less unwilling to take risks than individuals in Ho Chi Minh City.

4. Conclusion

The study reveals that there is some differences among different groups of investors in Vietnam Stock Market. There is internal difference in 4 out of 6 studied groups of investors in taking risks in trading stocks. The gender, age, investment experience and marital status associate with the decision making of investors. The investors with different education qualification and income level have the same decision in taking risks in trading stocks.

Men are prone to be more willing to take risks than women in trading and this result is also proved by Barrer and Odean (2001); Wood and Zaichkowsky (2004) that men are often overconfident and trade with a larger volume than women. Lunderberg, Fox and Puncoschar (1994) also illustrated that men are often more confident than women in trading stock. Although both men and women have the same understanding, the feeling often influences on men's decision making, (Prince, 1993), (Lunderberg, Fox, & Puncoschar, 1994). Besides, due to the characteristics of Vietnamese, women often play an important role in families' spending, so they have to consider carefully in trading stock to minimize the cost and to avoid risks and be unwilling to take risks.

The study also shows that the investors with different ages have different investing psychology, which is similar to the result of Riley and Chow (1992); Evan (2004); Lutfi (2010); Jain and Mandot (2012). The study proves that the investors with the age of from 27 to 50 are prone to be more willing to take risks than the investors with the age of over 50. It is clear that young investors are often more willing to take risks while the elder or retirement investors

like to be safe in trading stocks. The elder or retirement investors always want to have an ease life with no pressure, therefore, they decide to invest safely.

The establishment of Hanoi exchange defines clearly the differences in taking risks of investment individual in Ho Chi Minh city and Hanoi exchanges. The investment individuals in Ho Chi Minh City are much more willing to take risks than individuals in Hanoi. The reason may be experience factors (to be discussed in the next section) in participating to regional markets which has affected to willingness to take risks in making investment decisions. This trend also explained that investors in Hanoi exchange have small investment and stock to avoid large risks which can affect personal finance.

The study brings out the association between the investment experience and investment decision making. The investors with the investment experience of over 5 years tend to be more willing to take risks while the investors with the investment experience of less than 5 years often make a safe decision in trading stocks. This result is new discovery for Vietnam Stock Market. This result also did not exist in other studies. The reason for this is that the investors with the investment experience of less than 5 years always want to participate to survey the market, and when they accumulate enough experience of from 5 years or more, they are prone to invest aggressively and to be willing to take risks because they can forecast the market movement.

In term of marital status, the study illustrates that married investors are less willing to take risks than the others because they have to consider their family issues. This is also similar to the conclusion of Barber and Odean (2001); Raganathan (2004); Lutfi (2010).

To sum up, demographical factors influence on the decision making of investors on Vietnam Stock Market. Women have to be responsible for their families' spending, so they often make the safe decision in trading stocks. The elderly or retirement investors are prone to be less willing to run risks in trading stocks due to the fact that they want to have an ease life when they are getting old. Moreover, the married investors are often less willing to take risks than the single or divorced investors. The psychological factor independent on family issues is the investment experience, which shows that the investors with the investment experience of over 5 years tend to be more willing to take risks than the others.

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