Determinants of the Risk Tolerance of the Vietnamese Individual Investors by Gender

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Abstract: *Coming from an Asian culture with a long Confucian tradition, we always want to verify whether gender in Vietnam affects investor morale in the integration context. This study with 446 samples (including 208 male samples and 238 female samples in Vietnam) and adds 2 new factors (Investment background knowledge and Family Tradition) to consider whether there are gender differences in the factors affecting the risk tolerance of the Vietnamese individual investors. Research results show that, besides previously proven influencing factors, two additional factors also affect risk tolerance. For men, the factors that influence risk tolerance are Wealth, Work, and Investment background knowledge. For women, the factors affecting risk tolerance are Family Tradition, Investment Background knowledge, and Wealth. This difference makes investing in Vietnam more plentiful and attractive, helping the Government to come up with proper and timely policies, suitable to the economic environment; And foreign investors can have more opportunities to choose the investment environment.*

Keywords: Gender, Risk tolerance, Investment background knowledge, Family tradition

1. Introduction

Vietnam has 4 factors as the destination for investment. Firstly, it is political stability, Mr. Kim Huat Ooi also pointed out that the recent Covid-19 pandemic is a typical example. Secondly, HCMC is very creative, extremely opening to new technology, and always welcoming to new solutions city. Thirdly, they are the preferential policies that the Government has issued. Finally, it is the infrastructure in Ho Chi Minh City with many industrial parks and preferential policies for investment[1].

These are evidence drawn from the statistics of the Vietnamese authorities and the assessments of famous economic experts in the world. Vietnam is not only a great place for investing but also a safe place to invest in both domestic and foreign investors.

Risk tolerance is the key to every investor's decision because it reflects the investor's courage. The investors' ability to bear risks also reflects the level of return that investors expect when accepting investment in the project. This study seeks to answer the question of whether gender influences Vietnamese people's ability to take risks? Besides, the study is also interested in how gender is influenced by traditional factors in the family?

The ability of risk tolerance is a major factor for any job related to investment. Risk tolerance of individual investors depends on many factors such as Gender, Age, Education, Work. There have been many types of researches investigating this problem and presented many different results about factors determining the risk tolerance of individual investor. In this study, the author based on the risk tolerance model of Rahmawwati et al (2015) in Pakistan to:

- Learn the Vietnamese about their risk tolerance in the

field of investment, business and start – up. It is a reference for the Vietnamese to adjust and supplement the necessary elements to improve their ability of risk tolerance in order to have optimal profits.
- Provide organizations and the Government of Vietnam with more references to promulgate more appropriate policies to stimulate increased investment activities.
- Provide foreign organizations with information on investment decisions in Vietnam.

The results of a review of studies show that women are less at risk than men; middle-aged people have a lower risk tolerance than young adults (Rahmawwati et al., 2015). As for the education factors affecting risk tolerance, the research results in the past are inconsistent. Research by Rahmawwati et al. (2015) confirmed a positive effect while Shah and Bhatt (2013) found no evidence of the impact of education on risk tolerance. Besides, the tradition in a family (or family line) with businesspeople also helps other family members access the business environment more easily. Growing up in an environment with relatives participating in business helps individuals become more familiar with investment risks. Therefore, family traditions can also affect an individual's ability to take risks from that family. However, the issue of family traditions has not been explored by studies in the past. In this study, two new factors (Investment Background knowledge and the family tradition factor) are added to consider the investor's risk tolerance when differentiating by gender.

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[1]https://cafef.vn/tong-giam-doc-intel-viec-chung-toi-den-viet-nam-dau-tu-va-hoat-dong-da-la-mot-thanh-cong-cuc-ky-lon-20200825161341138.chn

2. Literature Survey

2.1 Background theories
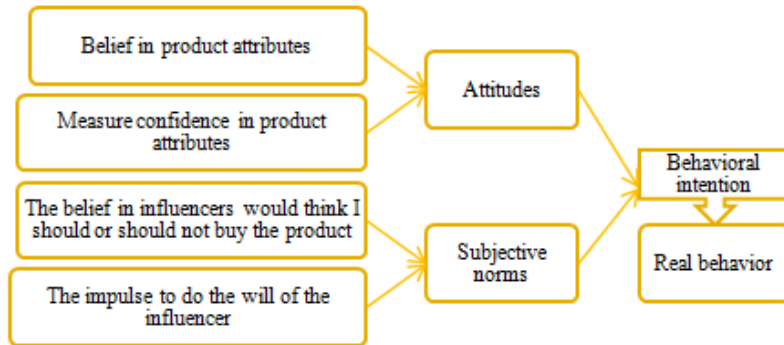
Theory of Reasoned Action

Figure 2.1: Theory of Reasoned Action (TRA), Schiffman và Kanuk, Consumer behavior, Prentice – Hall International Editions, 3rd ed, 1987

Source: Schiffman & Kanuk (1987)

Theory of Reasoned Action was developed by Ajzen and Fishbein in 1967 and modified extensively over time by Schiffman and Kanuk (1987) in the book Consumer behavior. The model shows that consumer trends are the best predictor of consumer behavior. To pay more attention to the factors that contribute to the buying trend, two factors are considered the customer's attitude and subjective norms.

In the TRA model, attitude is measured by perceptions of product attributes. Consumers will pay attention to attributes that provide essential benefits and varying importance. If we know the weights of those attributes, it is possible to approximate the results of the consumer choice.

Subjective norms can be measured through consumers' relationship (such as family, friends, colleagues, ...); These people like or dislike they buy. The extent to which subjective standards influencing the buying trend of consumers are dependent on: (1) the degree of support/opposition to the consumer's purchasing and (2) the consumer's motivation to follow the influencers' desires.

The factors that influence the consumer's real behavior mentioned in the TRA model are similar to the factors that influence the behavior of the Vietnamese individual investors in the first decision-making process.

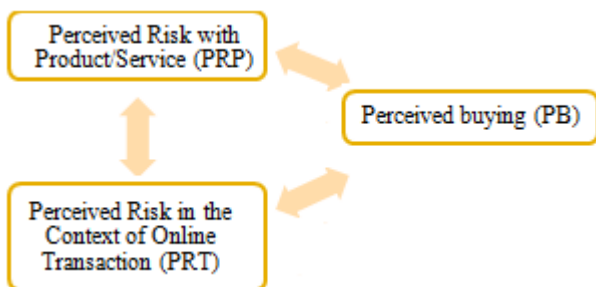**Theory of Perceived Risk**

Figure 2.2: Theory of Perceived Risk (TPR) của Bauer, 1960

Source: Bauer (1960)

In Theory of Perceived Risk, Bauer (1960) argues that the consumer behavior of information technology products has risk awareness, including two factors: (1) Perceived Risk with Product/Service (PRP) and (2) Perceived Risk in the Context of Online Transaction (PRT).

- Perceived Risk with Product/Service (PRP): risk perceptions: loss of functionality, loss of finance, time, loss of opportunity, and total product risk perception/service (the sum of consumers' perceptions of uncertainty or anxiety when purchasing the product).
- Perceived Risk in the Context of Online Transaction (PRT): risks that can occur when consumers conduct e-commerce transactions on electronic media - related devices: privacy, security-authentication, nonrepudiation, and total risk perception of online transactions privacy, security-authentication, nonrepudiation, and total risk perception of online transactions.

The awareness of investment risks will help the Vietnamese individual investors to gain more confidence and find the right strategy to overcome risks in order to bring optimal returns.

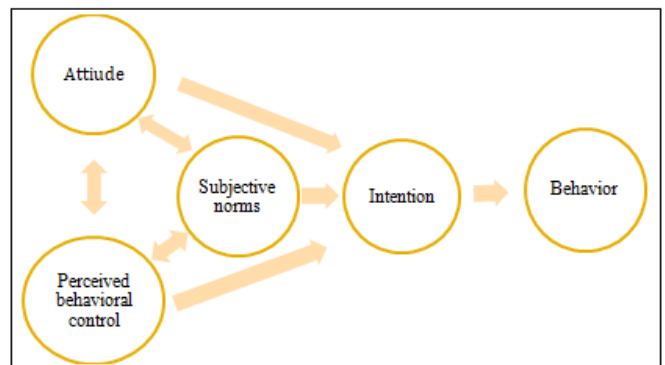**Theory of Planned Behavior**

Figure 2.3: Theory of Planned Behavior (TPB)
Source: Ajzen, 1991

Ajzen's Theory of Planned Behavior (TPB) (1991) is developed from the Theory of Reasoned Action (Ajzen and Fishbein, 1975), created by the limitation of the previous theory which pointed out human behavior is controlled by reason. The TPB model later became the theoretical foundation applied to research into many different fields: green consumption intent, the behavior of buying clean food, the behavior of investment,... The TPB theory also states that the main factors in planned behavioral theory are the individual's intention to perform a certain behavior and that behavioral intent is governed by Attitude, Perceived behavioral control, and Subjective norms.

a) Perceived behavioral control: The cognitive factor of behavior control was added by Ajzen (1985) to adjust the TRA model. Perceived behavioral control is as important as an individual's self-assessment about how difficult or easy it is to perform a behavior. The more resources and opportunities they have, the fewer obstacles they think will be, and the greater the cognitive control of behavior will be. According to Ajzen (1991), this cognitive factor of control stems from the confidence of the individual intending to implement the behavior and the easy and favorable conditions for performing the act. If the person planning to act has enough information for their decision, they will have the awareness to control the customer's behavior.

b) Attitudes towards behavior: According to Ajzen (1975), the attitude leading to the behavior is the degree of expression of that behavior which is evaluated by the individual as positive or negative. In TPB theory, Ajzen affirms that attitudes are formed by two factors: (1) individuals' belief about behavioral outcomes - belief about behavior that results in a product that has certain attributes, and (2) the person's judgment of this outcome - is the value associated with the characteristics of the outcome of the action.

c) Subjective norms: Ajzen and Fishbein (1975) define subjective norms as the cognitive social pressure to perform or not to conduct a certain behavior, which comes from an attitude of support or disapproval of the act from family, friends, and other important people. Ajzen (1991) developed further from his definition of subjective norms, indicating that the individual intends to perform the behavior after considering the support of the influencers towards themselves and the individual finds that many people are behaving the same they intended.

d) Subjective norms: consists of two factors:
   - Beliefs about whether influencers believe this individual should perform a behavior, feelings, or beliefs about whether everyone agrees or disagrees with our behavior.
   - Motivation to comply with these influencers - whether the individual's behavioral intentions are influenced by everyone's thoughts.

The scale of intention leading to behavior was developed by Taylor and Todd (1995) based on the concept raised by Ajzen (1985). The study also adds an element of expectations to perform customer behavior.

2.2 Overview of researches

Self-reported risk tolerance is a measurement of an individual's willingness to accept risk, making it a valuable tool for financial planners and researchers alike. Prior subjective risk tolerance measures have lacked a rigorous connection to economic theory. (Hanna, Gutter and Fan 2001)

Investor confidence and risk tolerance are important concepts that investors are constantly trying to gauge. Yet these concepts are notoriously hard to measure in practice. Most attempts rely on price or return data, but these run into trouble when trying to disentangle whether an observed price change is attributable to a shift in investor confidence or a change in fundamental value. (Froot and Connell 2003)

The assessment of financial risk tolerance, as a tool for managing expectations of portfolio volatility, is essential to goal attainment. This study compares two empirical measures of risk tolerance and separately examines the association between these measures of risk tolerance and asset allocation. (Gilliam, Chatterjee and Grable 2010)

Financial risk tolerance is one of the key elements that should be considered in making investment decisions for both investment managers and investors. According to its importance, understanding and measuring of financial risk tolerance is not a simple topic. Therefore measuring of financial risk tolerance and determining of the factors that affect financial risk perceptions of individual investors have been interest of research and discussion for long yerars. (Anbar and Eker 2010)

Assessing client risk tolerance is one of the most important activities for financial planners. Although risk tolerance evaluation is a key input in the formulation of individualized portfolios, academics and practitioners have not yet paid much attention to this variable. (Injodey and Alex 2011)

The traditional perspective of financial theory suggests an implicit rationality on decision making. Historically, researches have revolved around demographic, social and economic heuristics, thus neglecting the emotional, cognitive and behavioral suppositions, related to financial decision making. In this sense, this study aims to evaluate which are the determining factors for risk tolerance. (Cavalheiro, Vieira and Ceretta 2012)

Decision making is a complex process that involves risk. All decision made by investors should be concerned about the level of risk they are willing to tolerate. The level of risk they are willing to absorb will lead to their investment strategy they should go for, aggressive, moderate or conservative. For that reason, the factors affecting investors' investment strategy should be taken into consideration. (Riffin and Ahmad 2012)

Fang, Hanna and Chatterjee (2013) present factors related to differences in risk aversion were analyzed with a measure of risk aversion inferred from answers to a hypothetical income gamble question in the U.S. Health and Retirement Study. Cumulative logistic regressions, controlling for income, age,

gender, health status, current job status, and home ownership, showed that Blacks were more risk averse than Whites, but Hispanics born in the United States were not different from Whites. U.S. born respondents in an "other" group, largely Asian, were also not different from Whites. Hispanics and those in the other group who were immigrants were more risk averse than Whites. Racial/ethnic differences found in other risk aversion studies may be partly due to differences in immigrant status.

The reforms era of the nineties in India has led to the proliferation of the financial services industry and the introduction of several financial products and services. The myriad products have also given a lot of options to the investors for channelizing their savings. However, the choice of instruments depends on the demographic and psychographic factors of the individuals as well as the characteristic features of the products viz. risk, return, liquidity, tenure, etc (Shah and Bhatt 2013)

Rahmawwati, Kumar, Kambuaya, Jamil and Muneer (2015) present new evidence on determinants of risk tolerance of individual investors of Pakistan. The main objective of the research is to evaluate the factors that determine the individuals' decisions. It is essential to understand the factors of risk tolerance and how to manage these factors to enhance the ability of risk tolerance in making investment decisions and increasing economic growth.

Risk aversion is an important factor in explaining many everyday decisions. Thus, one asks which determinants can explain different attitudes towards risk. Several studies show different risk attitudes with respect to gender, age, income, and wealth (e.g. [19]). While these findings are hardly controversial, there is still some uncertainty about the effect of culture on risk tolerance. (Weber 2014)

Risk tolerance and financial behaviours are two concepts that should be analysed in order to understand portfolio decisions and market behaviour. (Massol and Molines 2015)

Over a decade ago, Grable and Lytton (1999) developed, tested, and published a financial risk-tolerance scale in Financial Services Review that has since been widely used by consumers, financial advisers, and researchers to evaluate a person's willingness to engage in a risky financial behavior. (Kuzniak, Rabbani, Heo, Menjivar and Grable 2015)

Understanding financial risk tolerance and determining an individual's willingness and capacity to take on risk is an essential part of financial and indeed economic planning. Increasingly planners draw on the behavioral economics literature. Determining a client's financial risk tolerance is a crucial part of the investment management process. In assessing the risk profile of a system or individual, it is generally seen that there are four main inputs (1) goals, (2) time horizon (3) financial stability, and (4) risk tolerance (Garman & Forgue, 1997). The final input, risk tolerance, is one of a more subjective than objective nature and thus is much more difficult to measure. Although countless attempts have been made to come up with a more precise quantitative measure for this final input, there is no one size

fits all approach to measuring risk tolerance and such it has attracted a high level of interest among a range of schools of thought worldwide and merits further insight and investigation. (Prasad 2015)

The understanding and application of risk , risk assessment and risk measurement are vital aspects in all financial decisions because individuals are presented with evaluating whether the return from an investment will offer sufficient compensation. (Antony 2017)

The purpose of this research is to explore gender differences in financial risk tolerance using a large, nationally representative dataset, the Survey of Consumer Finances. The impact of the explanatory variables in the model is allowed to differ between men and women to decompose gender differences in financial risk tolerance. The results indicate that gender differences in financial risk tolerance are explained by gender differences in the individual determinants of financial risk tolerance, and that the disparity does not result from gender in and of itself. (Fisher and Yao 2017)

2.3 Factors of Risk Tolerance

2.3.1 Family Tradition
Family is the closest factor to each individual, greatly influencing the psychological and biological development and personality of a person. According to Vietnamese tradition, parents have an important role. Men are usually the head of the family, the father is the pillar, the expression of the most beautiful cultural personality for children to learn and follow. Women are the prop, the main psychological nucleus, the source of fire to warm the love in the family, the endless source of affection for the children. Therefore, a family is the first place to establish a personality for each person. And this also partly affects the risk tolerance of individual investors. (Nguyen Thi Kim Hong 2013)

2.3.2 Work
Work has a great influence on the buying behavior of customers. In addition to goods directly related to professional activities, customers with different occupations also consume differently. Therefore, marketers need to learn about the consumer behavior of customers in different occupations such as workers, farmers, civil servants, intellectuals, artists, business managers, politicians... ". Therefore, work is a factor that greatly influences individual investors' ability to take risks because risks are different in each profession because a person is in medicine or architecture they only know clearly risks may occur in their field. When an investment option is received, their attitudes to the risks of the investment project will differ, resulting in different returns they require from the project and they may not accept the investment. (Nguyen Thuong Thai 2016)

2.3.3 Investment background knowledge
Perception is a process through which people select, organize, and interpret received information to create a picture of the surrounding world. People can perceive differences in the same situation due to the selective, distorted, and selective perception of information received.

Therefore, it is possible that two people with the same motives but act differently in the same situation. The above cognitive feature requires marketers to put in a lot of effort to bring promotional information to customers. Perception or understanding is certain changes that take place in a person's behavior under the influence of the experience they have accumulated. People are experienced and knowledgeable due to their experience and ability to learn. Adults are more experienced, buying is more fluid. Someone with experience in this field has experience in that field. (Nguyen Thuong Thai 2016)

2.3.4   Wealth

Another factor that causes the investor's decisions to change is wealth. Wealth in any form is sacrificed in front of risk in hope of higher gains. More money, more the willingness to face risk. Rich and wealthy individuals have more capacity to risk tolerance because they have enough sources to get wealth and compensate for their losses. (Rahmawwati, Kumar, Kambuaya, Jamil, and Muneer 2015)

2.4 Conceptual framework

The study is based on research paper published in International Journal of Economics and Financial by Rahmawwati, Kumar, Kambuaya, Jamil and Muneerin2015.
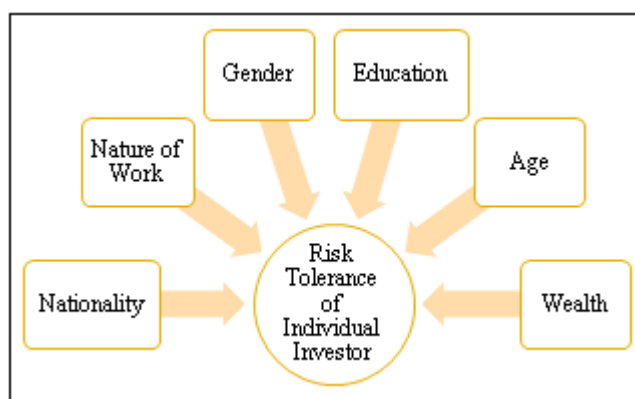

Figure2.4: The model of the risk tolerance (2015)
Source: Rahmawwati et al, International Journal of Economics and Financial ISSN 2146-4138 Issues, 5(Special Issue) (2015)

2.5 Analytic framework

From the research in the past, seven factors (Family tradition, Work, Investment background knowledge, Wealth) are selected to study:

$$f(KN) = f(GD, CV, KT, GC)$$

with KN is a dependent factor; GD, CV, KT and GC are independent factors.

- H01: Family tradition knowledge affects significantly in determining the risk tolerance of the Vietnamese individual investors.

- H02: Work affects significantly in determining the risk tolerance of the Vietnamese individual investors.
- H03: Investment background knowledge affects significantly in determining the risk tolerance of the Vietnamese individual investors.
- H04: Wealth affects significantly in determining the risk tolerance of the Vietnamese individual investors.

3. Method

3.1 Research method

3.1.1 Qualitative research methods

- Research scientific articles on the factors affecting risk tolerance of individual investors of foreign authors.
- Design of risk tolerance questionnaires for individual investors.
- Conduct risk tolerance surveys of individual investors.
- Model of factors affecting risk tolerance of individual investors by Rahmawwati et al (2015)

3.1.2 Quantitative research methods

- Descriptive Statistics
- Processing of data collection
- Evaluate the results achieved

3.2 Research approach

In the study, the observed variables use a Likert scale with 5 levels (with: level 1 = Strongly disagree, level 2 = Disagree, level 3 = Slightly agree, level 4 = Agree and level 5 = Absolutely agree), there are 8 groups of potential scales (with a total of 42 observed variables) determining the risk tolerance of the Vietnamese individual investors.

The data is processed by SPSS tool with techniques such as measuring scales, determining correlation coefficients between independent and dependent variables, constructing and analyzing regression model.

3.3 Sample size

According to Hoang Trong and Chu Nguyen Mong Ngoc (2008), the number of observations (sample size) must be at least 4 to 5 times the number of variables in factor analysis, the sample size is 42 variables (for 8 quantitative factors) x 5 = 210 samples. For multiple regressions, according to Hair et al. (2009), the minimum sample size was calculated by using the formula $50 + 8*m$ (m is the number of independent factors), this study had 8 independent factors, the minimum sample size is $50 + 8 * 8 = 114$ observations. Thus, to achieve the study objective, the minimum sample size for this study is 210 observations. The sample size of the survey is 446 samples (including 208 male samples and 238 female samples in Vietnam) in Ho Chi Minh City, Ha Noi City, and other city.

Table 1: Descriptive Statistics

Characteristics		Men (N = 208)		Women (N = 238)	
		Frequency	Ratio	Frequency	Ratio
Age	Under 25 year old	51	24.5%	92	38.7%
	From 25 – 35 year old	49	23.6%	42	17.6%
	From 36 – 45 year old	39	18.8%	29	12.2%
	From 46 – 55 year old	40	19.2%	39	16.4%
	Over 55 year old	29	13.9%	36	15.1%
Work	Go to school	48	23.1%	77	32.4%
	Work	106	51%	96	40.3%
	Both of them	54	26%	65	27.3%
Major	Major in business/economics	130	62.5%	167	70.2%
	Others	78	37.5%	71	29.8%
Education level	Under college, high school	38	18.3%	33	13.9%
	College	14	6.7%	20	8.4%
	University	121	58.2%	152	63.9%
	After university	35	16.8%	33	13.9%
Approach	Trained in school and experienced in practice	74	35.6%	99	41.6%
	Only experienced in practice	73	35.1%	87	36.6%
	Untrained	61	29.3%	52	21.8%
Region	Ho Chi Minh city	93	44.7%	102	42.9%
	Ha Noi city	62	29.8%	71	29.8%
	Others	53	25.5%	65	27.3%
Objectives	People preparing to invest / start – up	117	56.3%	143	60.1%
	People who have invested / start – up	91	43.8%	95	39.9%

Out of 446 responses, the proportion of males accounted for 46.64%, and females 53.36%. In terms of occupational characteristics, the proportion of people who have worked in men is higher than that of women (51% higher than 40.3%), but the proportion of people still going to school and studying while working is higher for women than for men (32.4% higher than 23.1). %, 27.3% higher than 26%). In terms of professional characteristics, the proportion of people in economic/business sectors is higher for women than for men (70.2% higher than 62.5%), while the proportion of people in other fields is higher for men than for women (37.5% high. 29.8%). In terms of qualifications, the proportion of people at university and secondary and

college levels are higher in women than in men (63.9% higher than 58.2%, 8.4% higher than 6.7%) and the proportion of people below intermediate and high school and higher education in men is higher than in women (18.3% 13.9% higher, 16.8% 13.9% higher). In terms of training quotas, the proportion of people who are well trained and only trained is higher in women than in men (41.6% higher than 35.6% and 36.6% higher than 35.1%), and the proportion of untrained men is high than in women (29.3% higher 21.8%). The demographic information in Table 1 shows that the sample is well representative of the overall study.

3.4 Research result

Table 2: Reliability statistic

No.	Factor	Men		Women	
		Accepted variables	Cronbach's Alpha	Accepted variables	Cronbach's Alpha
1	Tradition family – GD	5	0.834	5	0.857
2	Work – CV	5	0.802	5	0.839
3	Investment background knowledge – KT	5	0.807	5	0.782
4	Wealth– GC	4	0.792	5	0.753
5	Risk tolerance of the Vietnamese individual investor– KN	4	0.824	5	0.792

The scale accepts only variables with Item – total correlation greater than 0.3 and Cronbach's Alpha coefficient greater than 0.6. Therefore, on the men's scale of type 2 variables because these two variables have Cronbach's Alpha coefficient greater than Cronbach's Alpha coefficient of its total variable, and on the women's scale, there is no variable because there are no variables. Cronbach's Alpha coefficient is smaller than the Cronbach's Alpha coefficient of its total variable.

Applicable and variable selection standards for EFA analysis include the Bartlett standard and KMO coefficient used to evaluate the suitability of EFA. Accordingly, the hypothesis

H0 (variables that are not correlated in the population) is rejected, and therefore EFA is considered appropriate when: $0.5 \leq KMO \leq 1$ and sig <0.05. In the case of KMO <0.5, factor analysis is likely to be inconsistent with the data (Kaiser, 1974).

Table 3: KMO and Bartlett's Test

		Men	Women
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.887	.914
Bartlett's Test of Sphericity	Approx. Chi-Square	1915.665	2532.549
	df	171	190
	Sig.	.000	.000

In Table 3, KMO (Men) = 0.887 and KMO (Women) = 0.914, satisfying the condition 0.5 < KMO < 1, showing that EFA (exploratory factor analysis) is suitable for real data. Sig. = 0.000 <0.05 indicates that the variables are related together. Thus, from KMO and Sig, it proves research data is suitable for EFA implementation.

Table 4: Reliability statistic (adjusted)

No.	Factor	Men (M)		Women (W)	
		Accepted variables	Cronbach's Alpha	Accepted variables	Cronbach's Alpha
1	Tradition family – GD	5	0.834	7	0.883
2	Work – CV	4	0.765	0	0.000
3	Investment background knowledge – KT	3	0.761	7	0.863
4	Wealth– GC	3	0.780	2	0.748

The results of testing the reliability of the scale of factors that can affect risk tolerance are shown in table 4. The results show that there are 4 factors that affect the ability of the house to tolerate risks. Investments are based on the male investor sample, while the female model has 3 factors. In which, the factors of (1) Family tradition; (2) Investment background knowledge and (3) Wealth can both affect risk tolerance for both female and male investors. The Work factor only doubt affects the ability of male investors to bear risks.

From the results obtained in Table 4, Cronbach's Alpha's all scales are above 0.7, the total variable correlation coefficients of the observed variables on the scale are greater than 0.4 and there is no case of rejecting any observed variables. Can make Cronbach's Alpha of this scale larger than the variable Cronbach's Alpha coefficients.

Thus, the research model according to practical conditions is proposed:

- According to the study men samples:

$$MKN = \beta_0 + \beta_1.MGC + \beta_2.MCV + \beta_3.MKT + \beta_4.MGD$$

- According to the study women samples:

$$WKN = \omega_0 + \omega_1.WGD + \omega_2.WKT + \omega_3.WGC$$

Research hypotheses:

a) According to the study men samples:
- H01: Family tradition affects significantly in determining the risk tolerance of the Vietnamese men individual investors.
- H02: Work affects significantly in determining the risk tolerance of the Vietnamese men individual investors.
- H03: Investment background knowledge affects significantly in determining the risk tolerance of the Vietnamese men individual investors.
- H04: Wealth affects significantly in determining the risk tolerance of the Vietnamese men individual investors.

b) According to the study women samples:

- H05: Family tradition knowledge affects significantly in determining the risk tolerance of the Vietnamese women individual investors.
- H06: Investment background knowledge affects significantly in determining the risk tolerance of the Vietnamese women individual investors.
- H07: Wealth affects significantly in determining the risk tolerance of the Vietnamese women individual investors.

Table 5: Coefficients[a] (Men)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.521	.228		2.284	.023		
MGD	-.085	.060	-.078	-1.427	.155	.662	1.510
MGC	.431	.046	.508	9.372	.000	.678	1.476
MCV	.381	.069	.334	5.493	.000	.539	1.857
MKT	.134	.057	.129	2.347	.020	.663	1.508

a. Dependent Variable: MKN

Table 6: Coefficients[a] (Women)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.814	.179		4.555	.000		
WGD	.158	.054	.172	2.926	.004	.588	1.702
WKT	.410	.052	.427	7.854	.000	.684	1.462
WGC	.198	.038	.283	5.177	.000	.676	1.479

a. Dependent Variable: WKN

The research results show that the factor of Family Tradition is excluded from the male regression model due to sig> 0.05, the remaining 3 factors in the analysis model are relevant at the significance level. sig <0.05. The factors in the female regression analysis model were appropriate at the significance level sig <0.05, so none of the factors were excluded.

- The multiple regression equation showing the risk tolerance of the men individual investors are:
  $$MKN = 0.521 + 0.431MGC + 0.381MCV + 0.134MKT$$

- The multiple regression equation showing the risk tolerance of the women individual investors are:
  $$WKN = 0.814 + 0.158WGD + 0.410WKT + 0.198WGC$$

The above research results also show that there are similarities in the factors affecting the risk tolerance of the Vietnamese individual investors between men and women, as well as in previous studies. However, the significant point in this study is that there are differences in factors affecting the risk tolerance of the Vietnamese individual investors between men and women. There is no element of Family tradition element as in the female model; there is no Work element as in the male model. This shows that the H05 and H02hypothesis is accepted except H01. Investment background Knowledge and Wealth elements are both in the linear men and women model. Therefore, the H03, H04, H06, and H07 are accepted.

4. Discussion

Research results show that the factors affecting the risk tolerance of individual investors are men different from that of women. Therefore, we have recommendations for increasing the risk tolerance of the Vietnamese individual investors as follows:

- Personal financial background (or investor's wealth): This factor has a positive impact on the risk tolerance of both men and women. This shows that investors with a solid personal financial background will be braver in their investment decisions. Therefore, in major economic centers of Vietnam, such as HCMC; Hanoi, Da Nang, ... will be a gathering place for many individuals with strong financial potential. From a strong financial background, it will help more brave individuals to participate in investments. Therefore, to encourage private investment, the government and local authorities should consider investing in potential areas and economic focus.

- Investor background knowledge: This factor positively affects the risk tolerance of both men and women. This shows that in order to become an investor, an investor must surely have a certain amount of background knowledge about the field in which they invest in order to be able to participate in the investment. So to encourage individual investment, local governments need to organize start-up programs. The locality introduces background knowledge about the fields of the industry to encourage investment. Vocational schools and universities integrate startup programs in their curriculum to provide background knowledge for learners.

- Work factor has a positive impact on the risk tolerance for male investors without affecting women. This shows that the current work factor strongly affects male investors' personality, bravery, and risk tolerance. Therefore, in order to encourage individual investment, first of all, local authorities need to create working conditions in certain occupations to guide potential investors in the future.

- Family tradition is the factor that positively affects a woman's ability to take risks without affecting men. This shows that as a mother and wife in a family, family traditions have a profound influence on the woman's ability to take risks instead of men. In order to encourage individual investors, local authorities should consider families with a tradition of entrepreneurship. Incentive policies in investment for families with many investors are also a powerful source of motivation for individuals to have more motivation to become investors in the future.

5. Findings and Conclusion

In summary, although the research has shown that the factors affecting the risk tolerance of the Vietnamese individual investors in men have some differences from women, there are similarities between men and women. The study's results are also consistent with previous studies in other countries. In particular, the discovery of two factors about Investment Background Knowledge and Family Traditions also affects the risk tolerance of the individual Vietnamese investors. However, due to the objective conditions of time and space, the research results have not fully reflected the factors affecting the ability of the individual Vietnamese investors. In the future, we will study more deeply on the larger sample data as well as discover new factors for better results.

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