

Chapter II

Theoretical Background and Previous Research

2.1 Theoretical Background

In this research, the author would like to prove the impact of family relationship, gender, and financial knowledge on financial risk tolerance. With that variable, the author could prove whether the family relationship, gender, and financial knowledge could impact the financial risk tolerance. In the family relationship, author would like to analyze whether the relationship between parents and children could influence the children's risk tolerance. Gender variable is to analyze whether men and women could impact the financial risk tolerance. The financial knowledge is to analyze whether the children's knowledge could influence their financial risk tolerance. So, the knowledge that they already got could influence whether less or more risk tolerance. For the further information, will be explained as follow:

2.1.1 Family Relationship

Family is a basic social unit consisting of parents and their children, considered as a group, whether dwelling together or not (<http://dictionary.reference.com/browse/family>). In the other worlds, family is the smallest unit or group in society. From the family, all of basic lessons and basic knowledge begins. The family had big impact in forming someone's personality.

Parents have a big influence to their children. As a mention previously, family is the smallest unit or group in society, and from family all of basic lessons and basic knowledge begins. The propinquity between parents and children could be seen from how often parents interact with their children. To build the propinquity between parents and their children, could be conducted with chat along with their children while being relax at home, or conducted while being dinner together. Why at dinner time? During dinner is the right moment or right time to chat with family. Because usually in the morning was busy time. For example father went to the office and children go to school. In the afternoon, usually they still had activities outside, so dinner is the right time to chat with family. Usually at dinner time, the parents and their children will tell about their activities in that day. With chatting, the parents will more understand about their children and their children also trust and comfortable with their parents, so they are closer with their parents. When children and parents have a good relationship, then children are willing to accept the values and norms that socialized the parents. According to Kenneth Ryack (2011), there is literature that suggests the consumer and financial attitudes and behaviors of parents may have an influence on their children. For example, if the parents doing the management practice such as write a shopping list before shop, compare the price before purchase, record the spending, save the money, and so forth, the children usually also doing the same thing, because parents might have a significant influence. According to American Education Saving Council & Employee Benefit Research Institute (2001) in Kenneth Ryack (2011), of the 1,000 parents and children surveyed, 94% of the students indicate they turn to their parents for financial information, 95% of the

parents say they encourage their child to save money, 86% teach their child to compare prices, and 61% teach their child to set financial goals and involve their child in discussions of family financial matters. According that surveyed the financial attitude and behavior of the children influenced by their parents. Usually, mothers are more likely than fathers to report having discussions about job prospects, paying for education, family financial matters, setting goals, and monitoring expenses (Kenneth Ryack, 2011). Fathers are more likely than mothers to teach about different kinds of investments (Kenneth Ryack, 2011). According that information could conclude that the relationship between parents and their children could impact on financial risk tolerance. So, parents' education could influence the children's decision. Parents' education is the education that the parents already got or graduate. For example the parents graduate from elementary school, senior high school, diploma, bachelor, master, or even not school. With the education that parents have, they could impact their children's decision. For example influence their children when making a decision. If the level of education of parents high, they could influence or affect their children's decisions more than parents who have low level of education. Because if parents have high level of education, they have more knowledge, so they could give an advice or suggestion to their children, moreover if related with what their parents learned.

But not always the relationship between parents and children could impact on financial risk tolerance. Because more mature the individuals, which means that they would be more interact with other peoples. The interaction with other peoples is one of the factors that could influence the individuals from outside. The

outside influence such as friends, education, and so on could change the behaviors and mindset of someone. If the beginning the relationship between parents and their children are closed, after their children have friends, got more knowledge, usually their mindset and behavior would change. So, the relationship between parents and their children also could not impact on the financial risk tolerance.

2.1.2 Financial Knowledge

Financial knowledge is the knowledge possessed and understanding about financial matters or financial concepts, for example financial planning, saving methods, insurance, investing, tax, and so forth. The financial knowledge could influence the financial decisions that could impact on the financial health of an individual.

Many researches have found the relationship between risk tolerance and formal levels of education. Individuals who have education, assumed that they have more knowledge and better understanding than individuals who have not knowledge. The individuals who are school at least until senior high school, already could manage their own financial. For individuals who are in college, especially in economic department, they are got more knowledge than individuals who are in non university level, so they more understand about their financial condition and could make a better decision, for example the decision in investing, because they already learn the theories. The individuals who already got enough theories, they could predict what would happen. So, individuals who had enough knowledge and understanding about finance usually more risk tolerance. Individuals who had knowledge and understand about finance, usually have a

better decision and healthy financial condition. According to Walsh and Hershey (1993) in Joy M. Jacobs-Lawson and Douglas A, Hershey (2005), the expert financial planners and older individuals are more accurate than younger individuals at determining how much should be invested. Expert financial planners make better investment decisions than younger individuals and trained (Hershey and Walsh, 2000/2001 in Joy M. Jacobs-Lawson and Douglas A, Hershey, 2005). According to that research, the individuals or older individuals who have better education and knowledge about finance could make a better decision than individuals who are still beginners. Individuals who have better education about finance, generally more risk tolerance because know what had be done.

2.1.3 Gender

Gender refers to socially-constructed differences between men and women (<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTGENDER>).

Gender is used to describe the characteristics, roles and responsibilities of women and men, boys and girls, which are socially constructed. Gender related to how perceived and expected to think and act as women and men because the way society is organized, not because of biological (<http://www.genderandhealth.ca>).

According to Alexandra Bernasek and Stephanie Shwiff (2001), women are more vulnerable than men to poverty in the older age, so has to save their income. These savings typically have to be spread over a longer period of time since women live longer on average the men, and they must meet higher expenditures since women also experience more chronic health problems as they

age (Alexandra Bernasek and Stephanie Shwiff, 2001). So, based on that research, women are more careful in treats their money. Women usually are more risk averse than men, because women are more concern about the money.

As mention before, women generally more risk aversion than men because they considered themselves to be less knowledgeable about finance. So, women have less confident than men about the financial knowledge. Even thought women have knowledge and ability equal with men, but most of women are still not confident with their ability. According to Meerrill Lynch (1996) in Adhikari and O'Leary (2011), men are greater or more than women in financial markets. That previous research shown that men are risk taking than women and men are more confident with their decision than women. Because women are more conservative in make a decision in investing, usually broker offered less risky investments (Wang, 1994 in Adhikari and O'Leary, 2011). Women who are more conservative, usually they have less risk tolerance. Because, women who are conservative in their investment, means that they did not want to loss, so usually they also less risk tolerance.

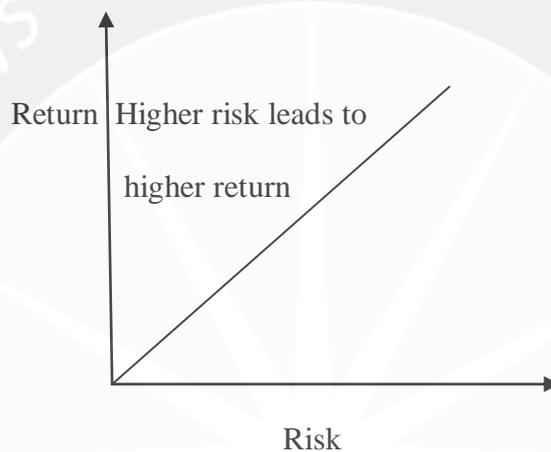
2.1.4 Financial Risk Tolerance

Risk is used to describe any situation where there is uncertainty about what outcome will occur (Harrington and Niehaus, 2003). In other words, risk is a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected.

As mention before, risk related with investment and return. Each investment has a risk. And if take a high risk, will be earn high return. According

to Charles P. Jones (2010), investment is the commitment of funds to one or more assets that will be held over some future time period. Peoples invest to earn a return on their money and improve their welfare. The relationship between risk and return according to James Lam (2003), the concept of risk is higher risk, higher return. Risk and return illustrated in Figure 1:

Figure 1. Risk and Return



Sources: James Lam (2003)

If peoples take a greater risk of losing some of their money by buying stocks, they expect to earn a greater return.

Risk tolerance is an investor's ability or willingness to accept more risk in exchange for the possibility of a higher return (<http://financial-dictionary.thefreedictionary.com/Risk+Tolerance>). According to Dalton and Dalton (2008) in Binay K Adhikari and Virginia O'Leary (2011), risk tolerance is the level of risk exposure with which an individual is comfortable; an estimate of the level of risk an investor is willing to accept in his or her investment portfolio.

2.2 Previous Research

Kenneth Ryack (2011), made research about The Impact of Family Relationships and Financial Education on Financial Risk Tolerance. Kenneth Ryack analyzed how family relationship and financial education impact financial risk tolerance using sample of college students and their parents. According this analysis, family relationships divided into two. First is spousal relationship, that examined the impact of marital status on financial risk tolerance. So, which one is more risk tolerance between married individuals and non married individuals. The second is the relationship between parents and children. Parents and children relationship maybe could impact on financial risk tolerance. The relationship between children and parents could influence on the attitude and behavior in financial management their children. In children and parents relationship, mothers are more likely than fathers to having discussions about job prospects, paying for education, family financial matters, setting goals, and so forth. Fathers are more likely teach their children about the investments. There is also a correlation between financial risk tolerance of spouses and gender, income and education. There is the impact of financial risk tolerance and gender. For instance, husbands are significantly more risk tolerant than their wives. This research also explained that college students who already had financial education, they are more risk tolerant.

Chan, S. F., Chau, A. Wai-Lap., Chan, K. Yin-Kwan (2012), made research about Financial Knowledge and Aptitude: Impacts on College Students' Financial Well-Being. This research analyzed about financial well-being influenced or related with the financial management practices. And healthy

financial management practices are related to attitude toward debt, perceived behavioral control, financial knowledge, and so forth. Students who always practice the financial management, tend to incur less debt and show better financial well-being.

Nancy Ammon Jianakoplos and Alexandra Bernasek (1998), made research about *Are Women More Risk Averse?* This research analyzed about women more risk aversion than men. This journal also explained that average women made safer choice than men when they making risky consumer decision. Gender differences in financial taking risk are also could influenced by age, race, number of children, income, and so forth. Women usually more risk aversion than men, because who manage the family money is wife, so women more careful in spending money.

Binay K Adhikari and Virginia O'Leary (2011), made research about *Gender Differences in Risk Aversion: A Developing Nation's Case*. This research analyzed about women indeed takes less risk and invested less of their wealth in risky assets than men. Women demonstrated more risk aversion than men because they considered themselves to be less knowledgeable about financial markets. To increase the abilities in the world of finance, women need to educate to be more confidence with their knowledge and decision. So, the result of this journal stated that gender and knowledge were significantly associated with the level of risk tolerance. Means that women are more risk aversion and less risk tolerance than men, and peoples who are have higher level of education assumed that have more knowledge and more risk tolerance.

Kenichiro Chinen and Hideki Endo (2012), made research about Effect of Attitude and Background on Personal Financial Ability: A Student Survey in the United States. This research analyzed about how abilities to make educated judgments about handling personal finance are affected by ages, gender and education of parents among college students across different academic disciplines. Individuals who have financial capabilities to make right choices about money, will be avoid from financial trouble such as not making payment on time, maxing out the credit card, and so forth. Individual who have financial knowledge usually have healthy financial condition and financial behavior such as saving for future, being able to prioritize spending according to needs, comparing the price before purchase, and so forth. Students who have enough knowledge and able to do financial practices, will show better financial condition.

Patti J. Fisher (2010), made research about Gender Differences in Personal Saving Behaviors. According Fisher analysis, women were less likely to save in short term if they were in poor health, while poor health did not significantly affect the short term saving of men. Factors influencing the act of saving may have important implications for differences in well-being between men and women. Women have lower incomes and wealth, on average, and are much more likely to be living in poverty during retirement, so it is important to better understand the factors related to saving among women and how these may differ from those of men.

Joy M. Jacobs-Lawson and Douglas A. Hershey (2005), made research about Influence of Future Time Perspective, Financial Knowledge, and Financial Risk Tolerance on Retirement Saving Behaviors. The individuals or older

individuals who have better education about finance can make a better decision than individuals who are still beginners. And individuals who have better education about finance generally more risk tolerance because know what has be done.

Gilliam, Goetz, and Hampton (2008), made research about Spousal Differences in Financial Risk Tolerance. In order to take a risk, wives more risk aversion than husbands. Husbands also more risk tolerance than wives. A positive relationship between wives' risk tolerance and their level of education was indicated the individuals with higher level of formal education tend to posses higher levels of risk tolerance. Wives' higher level of education was associated with a lower tolerance for risk among husbands. Wives generally more risk aversion than husbands because they considered themselves to be less knowledgeable about finance and because wives who generally manage the family financial, usually wives more careful to use the money.

Table 1. The Summary of Previous Research

Author and Title	Variables	Result
Kenneth Ryack (2011). The Impact of Family Relationships and Financial Education on Financial Risk Tolerance. Published by Financial Services Review, page 181-193, Vol. 20	Dependent variable: Financial risk tolerance Independent variables: Gender, income, family relationships and education level	The financial education affect on financial risk tolerance. The family relationship maybe could impact on financial risk tolerance because of many influences from outside. Men display higher risk tolerance level in both the college student and parent samples.

		<p>No significant relationship is found between the financial risk tolerance of college freshmen and their parents.</p> <p>There is strong correlation between financial risk tolerance of spouses, despite that their financial risk tolerance scores are significantly different. Husbands tend to be more risk tolerant than their wives.</p>
<p>Chan, S. F., Chau, A. Wai-Lap., Chan, K. Yin-Kwan (2012).</p> <p>Financial Knowledge and Aptitude: Impacts on College Students' Financial Well-Being.</p> <p>Published by College Student Journal</p>	<p>Dependent variable: Students' financial well-being</p> <p>Independent variables: Financial knowledge and financial aptitudes</p>	<p>There is did not any serious financial problem that reveal in this research. Around 30% of the respondents had financial difficulties in covering expenses related to each of extra-curricular activities, tuition, or study related activities. 20.5% of respondents reported that financial concerns had already affected their academic work. 45.3% respondents in the sample got financial support from family.</p> <p>The social and subjective norms, attitudes, and perceived control are significantly correlated with financial management practices, credit card use and loan. The debt and credit card use are related to the financial well-being.</p>
<p>Nancy Ammon Jianakoplos and Alexandra Bernasek (1998).</p> <p>Are Women More Risk Averse?</p> <p>Published by Economic</p>	<p>Dependent variable: Gender (single women, single men, married couples)</p> <p>Independent variables: wealth, age, work, education, race, number of children, human, and</p>	<p>Single women are relatively more risk aversion than single men.</p> <p>Over most age ranges single woman hold smaller proportion of risky assets than either single men or</p>

<p>Inquiry, page 620-630, Vol.36</p>	<p>homeowner</p>	<p>married couples.</p> <p>Single women reduce the proportion of risky assets they hold as the number of children.</p> <p>The single black women are willing to hold a larger proportion of risky assets on average than single white women, single men and married couples.</p> <p>Based on survey responses, women are significantly more risk averse than men.</p>
<p>Binay K Adhikari and Virginia O’Leary (2011). Gender Differences in Risk Aversion: A Developing Nation’s Case. Published by Journal of Personal Finance, Vol. 10</p>	<p>Dependent variables: Risk Independent variables: Gender</p>	<p>Women are exhibit less financial risk tolerance than men is apparently occasioned by a disparity in perceived knowledge about investments.</p> <p>Men tend to be more overconfident than women in areas like finance.</p> <p>Gender and knowledge were significantly associated with the level of risk tolerance. Women more risk averse than men, and men more risk tolerance than women.</p>
<p>Kenichiro Chinen and Hideki Endo (2012). Effect of Attitude and Background on Personal Financial Ability: A Student Survey in the United States. Published by International Journal of Management, Vol. 29</p>	<p>Dependent variable: Financial literacy on general knowledge Independent variables: Age, gender, attitude, and education</p>	<p>This study examined the effects of age, gender, numeric vs. less-numeric nature of academic disciplines, formal investment education in college, investment experience, and attitudes toward financial education on financial literacy.</p> <p>Did not provide clear evidence that investment education and personal investment experience would predict high scores</p>

		on financial literacy test.
<p>Patti J. Fisher (2010).</p> <p>Gender Differences in Personal Saving Behaviors.</p> <p>Published by Journal of Financial Counseling and Planning, Vol. 21</p>	<p>Dependent variable: Personal saving behaviors</p> <p>Independent variables: Gender</p>	<p>Women in the sample were older, had lower risk tolerance, were more likely to be retired and less likely to be unemployed or self-employed, were more likely to be in fair health, had fewer years of education, were more likely to own a home, and had less wealth on average.</p> <p>Women reporting low risk tolerance were significantly less likely to save over the short term as well as to be regular savers.</p> <p>Income was not significant in explaining the likelihood of short-term saving or the likelihood of saving regularly.</p> <p>Women with low risk tolerance may be less likely to save, are less likely to choose assets that have greater growth over time, leaving them financially unprepared retirement.</p>
<p>Joy M. Jacobs-Lawson and Douglas A. Hershey (2005).</p> <p>Influence of Future Time Perspective, Financial Knowledge, and Financial Risk Tolerance on Retirement Saving Behaviors.</p> <p>Publish by Financial Services Review, page 331-344, Vol. 14</p>	<p>Dependent variable: Retirement saving behaviors</p> <p>Independent variable: Future time perspective, financial knowledge, and financial risk tolerance</p>	<p>Future time perspective, financial knowledge, and financial risk tolerance are all important variables when it comes to understanding individuals' retirement saving practices (p values exceed 0.05 significance).</p>
<p>Gilliam, Goetz, and Hampton (2008).</p> <p>Spousal Differences in Financial Risk Tolerance.</p> <p>Published by Financial Counseling and Planning, Vol. 19</p>	<p>Dependent variable: Financial risk tolerance</p> <p>Independent variables: Gender, age, education, relative income, assets ownership, number of dependents</p>	<p>Wives who were university graduates had a higher tolerance for risk.</p> <p>There was a significant interaction on risk tolerance between gender and the wives' education, but there was not significant</p>

		<p>difference in risk tolerance when controlling for the wives' education, couples' age, assets ownership, husbands' income contribution, and number of dependents.</p>
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2.3 Operational Definition

According to Uma Sekaran and Roger Bougie (2009), operational definition is the definition of a construct in measurable terms by reducing it from its level of abstraction through the delineation of its dimensions and element. This questionnaire is modification from previous research entitled "The impact of family relationships and financial education on financial risk tolerance" by Kenneth Ryack which published by Financial Services Review.

The author using questionnaire method to collect the data. The questionnaires divided into two sections. The first section is for the students and second section is for the parents. In the first section is the questionnaires for the students, there are several parts. Part A is demographic of respondent. In the demographic respondents, there is information about gender, faculty, major and financial subjects that already took. In the demographic information, one of the information is gender and financial subject that already took. Gender is to measure which one is more risk tolerance between women and men and whether gender could impact the risk tolerance, and the financial subject that already took is several courses that already took by students is one of the questions to measure the understanding of students about financial matters. Part B is to measure the family relationship between parents and children. Part C is to measure financial

risk tolerance of students. Part D is to measure student's knowledge about financial matters, to analyze the extent of respondents understand about finance. The second section is the questionnaires for the parents. The questionnaire for the parents is only about demographic information (part E), which is about the information or background of the parents. One of demographic information is about parents' education where could explain the higher education level of parents, could influence their children. For the second section, the questionnaires for the parents, the author purposely only give the basic information about their parents. This is to anticipate if the parents could not fill the questionnaires, their children could fill it. Another reason is if the author did not know the respondents and the respondents need to bring the questionnaires at their home to ask their parents to fill it, so the author would be have difficulties to contact or get the questionnaires back.

Table 2. Operational Definition

No	Variable	Description	Measuring Instrument	Measurement Scale	Source
1	The demographic information	The information about the respondents	<p>The demographic information of students:</p> <p>a. Faculty</p> <p>b. Major</p> <p>c. How many financial subject that already took?</p> <p>The demographic information of parents:</p> <p>a. Occupation</p> <p>b. The last formal</p>	<p>Nominal scale</p> <p>Nominal scale</p> <p>Nominal scale</p> <p>Nominal scale</p>	Kenneth Ryack (2011)

			education		
2	Family relationship	The relationship that occur because of blood relation, marriage or adoption, such as parents-children relationship	<ol style="list-style-type: none"> 1. How much time their parents had spent teaching them about personal finance and money matters? 2. In one week, how often parents ask you to chattering together? 	Ordinal scale Ordinal scale	Kenneth Ryack (2011)
3	Financial risk tolerance	The willingness of peoples to take a risk	<ol style="list-style-type: none"> 1. In general, how would your best friend describe you as a risk taker? 2. You are on a TV game show and can choose one of the following. Which would you take? 3. You have just finished saving for a “once in a lifetime” vacation. Three weeks before you plan to leave, you lose your job. You would: 4. If you have Rp 100,000,000, what did you do with that money? 5. When you think of the word “risk” which of the following words comes to mind first? 6. Suppose a relative left you an inheritance of Rp 1 billion, stipulating in the will that you invest all the money in one of the following choices, which one would you select? 7. If you had to invest Rp 200,000,000, which of the following investment choices would you find most appealing? 8. Your trusted friend and neighbor, an experienced geologist, is putting 	Ordinal scale Ordinal scale Ordinal scale Ordinal scale Ordinal scale Ordinal scale	Grable, J. E., & Lytton, R. H. (1999b) in Grable, J. E., & Lytton, R. H. (2001) Grable, J. E., & Lytton, R. H. (1999b) in Grable, J. E., & Lytton, R. H. (2001) Grable, J. E., & Lytton, R. H. (1999b) in Grable, J. E., & Lytton, R. H. (2001)

			<p>together a group of investors to fund an exploratory gold mining venture. The venture could pay back 50-100 times the investment if successful. If the mine is a bust, the entire investment is worthless. Your friend estimates the change of success is only 20%. If you had the money, how much would you invest?</p>		
4	Financial knowledge	<p>The knowledge about finance that already got and understanding about financial concept, for example financial planning, investment, saving methods, insurance, investing, tax, and so forth.</p>	<p>Student's education:</p> <ol style="list-style-type: none"> 1. I am well informed when it comes to my knowledge about managing my money and financial matters 2. I regularly seek out financial information and advice 3. I understand information I receive concerning financial products 4. I am confident in making financial and investment decisions 	<p>Interval scale</p> <p>Interval scale</p> <p>Interval scale</p> <p>Interval scale</p>	<p>http://www2.uwstout.edu/content/lib/thesis/2009/2009klattm.pdf</p> <p>http://www2.uwstout.edu/content/lib/thesis/2009/2009klattm.pdf</p>
5	Gender	<p>Gender is used to describe the characteristic between boys, girls, men, women, which are socially constructed.</p>	<ol style="list-style-type: none"> a. Men b. Women 	Nominal scale	Kenneth Ryack (2011)

2.4 Hypotheses

Based on the explanation above, the author developed hypotheses to be tested in this study as follow:

H_{a1}: The parents' education impact the financial risk tolerance of their children

H_{a2}: There is the impact of gender on the financial risk tolerance

H_{a3}: There is the impact of children's knowledge on the financial risk tolerance

H_{a4}: There is the impact of parents and children relationship on the financial risk tolerance