

GENDER, ETHNICITY, AND RELIGION IN INVESTMENT BEHAVIOR WHILE TAKING A RISK

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Abstract

Purpose – This research aims to examine whether gender, ethnicity, and religion influence behavior in risk taking level and confidence level and to prove whether men are more risk taking and confidence than women or not.

Research Design – This study replicated a previous study by Mohamed Albaity and Mahfuzur Rahman (2012) who investigated a research paper of “Gender, Ethnicity, and Religion and Investment Decision: Malaysia Evidence” in two public universities in Malaysia. The questionnaires were distributed to eight Universities’ Pojok Bursa in Yogyakarta. Data analysis was used Chi-Square Test and Independent Sample t-test.

Findings – This research found that gender influence respondents’ risk taking level and confidence level. Meanwhile, ethnicity and religion do not influence respondents’ risk taking level and confidence level. This research also found that men are more risk taking and confidence compared to women.

Research Limitation – The number of the sample is not as many as the researcher expected. Other limitation is the researcher did not put other demographic factors, such as age, education, and the monthly cash of the respondents.

Keywords Gender, Ethnicity, Religion, Risk Taking and Confidence Level, Investment

Introduction

a. Background

People in the world cannot avoid risk. Risk already existed from the human history. The prehistoric human had brutal lives, as they searched food and shelter exposed them to physical danger from the beast and poor weather. In this era, it was already accured the patriarchal culture. A patriarchy comes from the ancient Greek *patriarches*, was a society where power was held by and passed down through the elder males (womenhistory.about.com). According to modern historians and sociologists a "patriarchal society," means that men hold the positions of power: head of the family unit, leaders of social groups, boss in the workplace and heads of government (womenhistory.about.com). It means that women’s God’s will are caring the household and reproductive responsibilities, such as clean the house; cook, and

bear the children. It shows men tend to be more risk taking compared to women, because they have to be outside their house and meet the family's needs.

Generally, investors are selective and have certain preferences in investing their funds. Investors' behavior and preferences are influenced by many factors both internal and external. The dominant factor that influences the investors' investment activity is both demographic and psychographic factors. Demographic characteristics include gender, age, education level, income, marital status and employment, while the psychographic characteristics of an investor are observed through the mental attitude, lifestyle, values embraced life, and personality (www.businessdictionary.com).

As cited from Dr. Nurasyikin Jamaludin's research (2013), religion has been inferred as a potential determinant of savings and investment behaviour (Keister, 2003). The values, habits and attitudes of an individual could affect it. Jamaludin also stated that many studies have examined religion could affect people's values, habits, attitudes, and behaviour.

The other research conducted by Zhong and Xiao (1995), to analyze the factors associated with families holding stocks or bonds, they used the 1989 Survey of Consumer Finances. They found that race also a factor in determining stock ownership.

b. Problem statement

This research concerns in gender differences toward risk preferences in investing their funds. In some research women are tend to be risk averse than men. They are more conservative in making investment decision. The other factors that influence their behaviour are age, ethnicity, and religion. Based on the research background above, so the problems of the study are as follows:

- a. Do gender, ethnicity, and religion influence the investors' risk taking level?
- b. Do gender, ethnicity, and religion influence the individual investment behavior, which is different type of confidence?
- c. Are men more risk taking than women?
- d. Are men more confidence than women?

c. Research Objective

- a. To examine whether gender, ethnicity, and religion influence investors' risk taking level.
- b. To examine whether gender, ethnicity, and religion influence the individual investment behavior, which is different type of confidence.
- c. To examine whether men are more risk taking than women.
- d. To examine whether men are more confidence than women.

Theoretical Background and Hypotheses

Gender and Investment Perspective

Women investors tend to be more conservative than men when they perceive a certain situation as ambiguous (Zinkan and Karande, 1991). They would be more likely to invest in money market mutual funds than male. While male would be more likely to invest in higher-risk investments, such as high-growth stocks and global stocks, compared to women.

Graham et al. (2002) suggested that gender differences in investment strategies may be related to the differing styles of information processing. Men often did not process all the information since they are highly selective. In contrast, women are hypothesized and process information comprehensively than men.

Manish and Vyas (2011) researched for gender differences in preferences for risk and investment decision making. Psychologists suggest that women are less confidence and are more methodical in their processing and accumulation style. The study founds that men engage in more risk taking and more overconfident than women. Women tend to put their funds in low risk – low return investment.

Risk, Race, and Religion

Javanese people has some rules and philosophy that different from other ethnicity. There are two concepts that relate with this topic. First, *Narimo ing pandum*, it is a concept that Javanese people believes God already gives them a destiny and they could not reject it. While the second one is *Urip ora ngoyo*, it represents that Javanese people would do activities without run over his or her power. For instance, he or she only has 1 million Rupiah for one month, so he or she should arrange the money well and spend wisely in order to not exceed the limit. This two principles show that Javanese people seems to be risk averse.

Compared Javanese and Chinese people, Chinese people has one principle that called *Zhi or Chi* (www.sindoweekly-magz.com). *Zhi or Chi* means that Chinese people has to work hard to achieve their dreams. They would be likely to take a risk, because they thought that they would receive more gains after they take pains.

Then, talk about religion, by providing moral and ethical teachings for their adherents to encourage them to behave in a specific way, religions might directly influence individual economic behaviour by its impact on traits and attitudes (Barro and McCleary, 2003). The Bible and Qur'an directly promotes risk averse for individual financial decision.

Ecclesiastes 11:2 recommend the diversification of financial portfolios and risk. Investment capital should be divided into several parts and not be risked all in one place: 'Divide your portion to seven, or even to eight, for you do not know what misfortune may occur on the earth.' Furthermore, the Bible reminds against investing in assets which the investor does not exactly know: 'Desire without knowledge is not good, and whoever makes haste with his feet misses his way' (Proverbs 19:2). The Qur'an tries to limit the riskiness of financial related behaviour by avoiding gambling (*Maisir*) not only in the sense of games of chance, but also in the sense of investment in risky assets (*Gharar*) because it considers as *haram*. Muslims are also prohibited from engaging in *Riba* (addition or increase or growth), interest as practiced by a majority of Islamic scholars to be equivalent to *riba* (<http://www.kantakji.com/fiqh/Files/Economics/c129.pdf>). 'O you who believe, intoxicants, and gambling, and the altars of idols, and the games of chance are abominations of the devil; you shall avoid them, that you may succeed' (Qur'an 5:90). In short, both the Bible and the Qur'an, how much financial risk taking is allowed and in which assets adherents are permitted to invest.

For Balinese people, there is term in Bali Language *Bani Meli Bani Ngadep*, means that there is no ambition to get much money while doing an investment and/or a business activity (<http://sanggrahanusantara.blogspot.com/2009/03/>). They believe that they could be succeed to get high profits by making an investment and/or business plan. For Hindu itself, there is *Sad Ripu* which comes from *sad* that means six and *ripu* that means enemy (<http://katahindu.wordpress.com/2012/06/18/sad-ripu-enam-musuh-dalam-diri-manusia/>).

Thus, *Sad Ripu* means six enemies which are human being in self. The components of *Sad Ripu* are

(<http://katahindu.wordpress.com/2012/06/18/sad-ripu-enam-musuh-dalam-diri-manusia/>):

- a. ***Kama***. *Kama* means negative desire.
- b. ***Lobha***. *Lobha* means greedy. People who are greedy is never satisfied.
- c. ***Krodha***. *Krodha* means angry. People who cannot control his or her temper would harm themselves and others.
- d. ***Moha***. *Moha* means confusion that can lead people's mind into the dark, so people cannot think clearly. This will cause the person does not able to distinguish which one is good and bad.
- e. ***Mada***. *Mada* means drunk. Drnk people's mind does not function properly. Consequently, he or she will be arrogant and say something that hurt other people.
- f. ***Matsarya***. *Matsarya* means jealous. *Matsarya* people feel that he or she is poor and has bad luck.

There are two components that indicates Hindus are more risk averse, *Kama* and *Lobha*. If people could not control his or her desire and people who is greedy, he or she would invest more to meet his or her desire. This action would lead people to take high-risk investment. In short, the Bible, Qur'an and Weda propose how much financial risk taking is allowed and in which assets adgerents are permitted to invest.

In Buddha, there is *Saddhā Bala* means belief power (<http://larosberbagibersama.blogspot.com/2012/02/penerapan-pancabala-sebagai-landasan.html?m=1>). This belief is the basic guidance to do the daily activities. It has important role to do something. People who are Buddha believe that *Saddhā Bala* will make them more confidence to do their activities, even the investment activities. They also believe that *Saddhā Bala* can increase their potential to do their activities. They stated if they want to be succeed, they have to develop *Saddhā Bala* to increase their confidence level and their potential. If they could not manage their confidence, they will be more and more confidence and then become overconfidence. The overconfidence itself represents the characteristic of risk taking behavior. If they cannot control their confidence, they can be a risk taker in their daily activities, even in investment activities.

Overconfidence

According to Cheng (2007) in Irwan Trinugroho's article about "Overconfidence and Excessive Trading Behavior: An Experimental Study", overconfidence behavior is the most common characteristics found in humans that reflect one's tendency to overestimate the ability, the chances for success and the probability that someone will gain positive outcomes and the accuracy of the knowledge possessed.

There are four aspects of overconfidence in finance (Glaser and Weber, 2004), they are:

- a. ***Miscalibration***. It is the tendency to think that the subjective probability is higher than the actual probability.
- b. ***Better than average effect***. It is the tendency to think that people has an above average ability of skill.
- c. ***Illusion of control***. This is people's believe that he or she has more ability to predict or more satisfactory results when they have high involvement in it.

- d. *Unrealistic optimism*. It is a form of defensive attribution wherein people think that good things are more likely to happen to them than to others and that bad things are less likely to happen to them than to others (<http://www.psychology-lexicon.com/cms/glossary/glossary-u/681-unrealistic-optimism.html>).

These four aspects of overconfidence lead the investors who are overconfidence trade more than the investors who do not overconfidence. According to Tversky (1998), if each person has a limited amount of information and is confident that his or her predictions are right, the result is higher trading, much more than would be expected under a rational model. If the investors are overconfidence and they trade more in the markets, it seems that they will take more risk than the investors who do not overconfidence.

Hypotheses

Previous researches shown that both demographic and psychographic factors could affect the investment decision making while taking a risk; which demographic factors are age, earnings, education, gender, ethnicity, religion and employment (Zinkan and Karande, 1991; Graham et al., 2002; Schubert et al., 2000; He et al., 2007; Odean and Barber, 2001; Riley and Chow, 1992; Flynn et al., 1994; Albaity and Rahman, 2012; Hassan and Hussein, 2009; Renneboog and Spaenjers, 2012, Barsky et al., 1997; Albaity and Rahman, 2012). The hypothesis is formulated accordingly as follows:

H.1 Gender, ethnicity, and religion influence investors' risk taking level.

According to the previous researches, overconfidence affect the investment decision making, and the males Malaysian Buddha have highest overconfidence than others (Tversky, 1998; Pan and Statman, 2008; Albaity and Rahman, 2012). It represents that diversity among gender, ethnicity, and religion affect the different type of confidence. The hypothesis is formulated accordingly as follows:

H.2. Gender, ethnicity, and religion influence the individual investment behavior, which is different type of confidence.

Some previous researches have shown that women and men have different investment perspective. This differences can be seen from three aspects that are risk averse, risk tolerance, and confidence level. According to previous researches, men are risk taking, having high risk tolerance, and having high confidence level than women (Terrance Odean and Brad M. Barber, 2011; Hinz et al., 1997, Byrnes et al., 1999, and Bernasek and Shwiff, 2011; Jianakoplos and Bernasek, 1998 and Palsson, 1996; Rita, 2008; Manish and Vyas, 2011; Barber and Odean, 2001; Zinkan and Karande, 1991). The hypothesis is formulated accordingly as follows:

H.3. Men are more risk taking than women.

Based on previous researches, it shown that there is different confidence level between men and women. The result stated that men are having high confidence level than women (Odean and Barber, 2001; Manish and Vyas, 2011; Tversky, 1998; Pan and Statman, 2008; Albaity and Rahman, 2008). The hypothesis is formulated accordingly as follows:

H.4. Men are more confidence than women.

Research Methodology

In this research, the population is the university students who learn investment or do investment activities in Yogyakarta that being used to gather the data needed for this research. The sample is university students from 8 universities in Yogyakarta. The author directly collects the data from the original source first-hand by distributing questionnaires. The author needed to distribute many questionnaires to drive a better validity. The author selected these universities because there is an active Pojok Bursa in these universities where the student could do the transaction or learn about investment. Furthermore, the author selected these universities in order to meet all of the religions and races that included in this research.

The author distributed 200 questionnaires. The student sample collected from eight universities located in Yogyakarta, they are Universitas Atma Jaya Yogyakarta, Universitas Pembangunan Nasional, STIE YKPN, Universitas Kristen Duta Wacana, Universitas Gajah Mada, Universitas Islam Indonesia, Universitas Negeri Yogyakarta, Universitas Teknologi Yogyakarta.

Data Analysis

The data come from 206 respondents in several Pojok Bursa in eight Universities, that are Universitas Atma Jaya Yogyakarta (UAJY), Universitas Pembangunan Nasional (UPN), STIE YKPN, Universitas Kristen Duta Wacana (UKDW), Universitas Gajah Mada (UGM), Universitas Islam Indonesia (UII), Universitas Negeri Yogyakarta (UNY), and Universitas Teknologi Yogyakarta (UTY). Actually, the author distributed 210 questionnaires, but after the author checked the total questionnaires, there are only 206 questionnaires can be used in this research, in order to be analyzed. The respondents' response level is 0.98 (206/210).

Table 1 Respondents' Characteristics Based on Gender

Univ.	Gender	
	Men	Women
UAJY	20	21
UPN	11	9
STIE YKPN	9	23
UKDW	9	10
UGM	15	10
UII	7	8
UTY	18	21
UNY	6	9
Total	95	111
Percentage	46.12	53.88

Source: Primary Data (N: 206)

In total from eight Universities in Yogyakarta, UAJY gave the most respondents, 41 people; then followed by UTY, 39 people, and STIE YKPN 32 people. In contrast, UII and UNY only 15 people. From the table above, also describes that women (53.88%) are the majority of the respondents.

Table 2 Respondents' Characteristics Based on Religion

Religion	Gender	
	Men	Women
Islam	44	61
Chatolic	27	30
Protestant	18	14
Hindu	3	1
Buddha	3	5
Total	95	111
Percentage	46.1	53.9

Source: Primary Data (N: 206)

The table above shows the respondents' characteristics based on respondents' religion. Based on the table, the majority of the respondents is Muslim (51%), 44 persons for men and 61 persons for women. The total respondents who are Chatolics 57 persons, which 27 male and 30 female. Followed by Protestant are 32 people, 18 male and 14 female. In contrast, for Hindu and Buddha are only 4 and 8.

Table 3 Respondents' Characteristics Based on Race

Race	Gender	
	Men	Women
Javanese	50	64
Chinese	20	22
Others	25	25
Total	95	111
Percentage	46.1	53.9

Source: Primary Data (N: 206)

The table above represents the respondents' characteristics based on respondents' race. From the table above, it shows that the majority of the respondents is Javanese (55.3%), 50 male and 64 female. Followed by the others ethnicity (24.3%), 25 persons for men and 25 persons for women. The total of Chinese respondents are only 42 persons (20.4%), 20 male and 22 female.

Table 4 The Result in term of Gender

	Male Mean	Female Mean	Asymp.Sig. (2-sided)	Sig. (2-tailed)
Risk Taking Level	31.21	24.56	.000	.000
Confidence Level	53.98	44.59	.000	.000

The value in column "Asymn. Sig (2-sided)" represents whether gender influence risk taking and confidence level and the value on column "Sig. (2-tailed) represents whether men are more risk taking and confidence than women.

The results show that gender influence both in risk taking level and confidence level. Gender is an unique factor. The differences between men and women may also have a biological bias. According to Zuckerman (1994) and Kimura (1999) in Manish and Vyas (2011) research about "A study of Psychological Reasons for Gender Differences in Preferences for Risk and Investment Decision" notes that women are more risk-averse because they have a high level of the enzyme monoamine oxidase which retards their

sensation-seeking and more sensitive to external stimuli in all modalities, except vision, and appear to be especially gifted at identifying ambiguities and changes in physical and social situations.

The investment strategies of the information processing style between men and women are different, so it will give impact to the confidence level (Graham et al., 2002; Tversky, 1998; and Manish and Vyas, 2011). Men are often to not process all of the information. In this condition, men are confident that his predictions are right, so they are more confidence to trade more and seem that they will take more risk than the investors who do not confidence. In contrast, women are hypothesized and process information comprehensively. Women are also more methodical in their processing and accumulation style. Women need to get more informations to support their decision before they do investment activities. It means that women are less confidence with their predictions and more likely to get more informations before they make investment decision. The result, women tend to trade less and seem that women are more risk averse.

The results in column “Sig. (2-tailed)” show that men are more risk taking and confidence than women. Women tend to avoid high risk investment than men (Zinkan and Karande, 1991). Women would be more likely to invest in money market mutual funds than male. On the other hand, male would be more likely to invest in higher-risk investments, such as high-growth stocks and global stocks, compared to women.

Odean and Barber (2001) in their research of “Boys will be boys: Gender, Overconfidence, and Common Stock Investment”, found that in finance field, men are tend to be more confidence than women. Because of the confidence level is different between men and women, so the investment decision is also different. They also found that women tend to trade less and get higher return than men.

Table 5 The Result in term of Religion

	Islam Mean	Chatolic Mean	Protestant Mean	Hindu Mean	Buddha Mean	Asymp.Sig. (2-sided)
Risk Taking Level	27.54	27.44	27.56	30.75	28.75	.390
Confidence Level	48.21	49.68	49.25	50.75	50.5	.989

The results show that religion do not influence both in risk taking and confidence level. There are other factors that influence the investors’ risk taking level. Palsson (1996), in his research about “Does the degree of relative risk aversion vary with household characteristics?” He found other factor that affect the risk aversion level beside of gender, which is age. In his reserach, he states that age could increase the risk aversion level. Age could increase, the increasing age could affect the investment decision making. By increasing age, people become more mature to take any decision. People will have many responsibilities while the age are getting increase. It means that people will think twice or more to decide their decision and make them become more risk averse.

Every people has different characteristics in investment decision making, whether he or she is confidence or not to make an investment. People can develop the value of the religion to the daily life, including in investment. But, nowadays, the different of each person based on his or her religion is not too significant. There are some succes figures from different religion, such as:

- a. Aburizal Bakrie. He is a Muslim. He works as a politician and entrepreneur. He is continuing his father’s business, Bakrie Grup. He developed the business into mass media, telecommunication, information, steel industry, mining, and contractor.

- b. Hary Tanoesoedibjo. He is a Protestant businessman in Indonesia. He currently holds several strategic positions in various leading companies in Indonesia. In addition, he held various positions in other companies under the banner of Global Mediacom and Bhakti.
- c. Sofjan Wanandi. He is a Catholic businessman. He is also known as Liem Bian Koen. He is the owner of Gemala Group (http://en.wikipedia.org/wiki/Sofjan_Wanandi). His brother, Rudi Wanandi is also an businessman. He is the owner of an insurance company, Asuransi Wahana Tata.
- d. Ni Luh Putu Ary Pertami Djelantik. She is the owner of shoes company which its brand is Nilou. She comes from Bali, but her products are very famous in a global market. Her outlets are in 20 foreign countries, such as America, France, England, Japan, etc.
- e. Franky Oesman Widjaja. He has been a CEO of Golden Agri Resources Ltd since 2000. Since 1982, he has been involved in different businesses, including pulp and paper, property, chemical, financial services and agriculture.

Table 6 The Result in term of Race

	Javanese Mean	Chinese Mean	Others Mean	Asymp.Sig. (2-sided)
Risk Taking Level	27.11	28.29	28.24	.794
Confidence Level	48.37	50.62	48.74	.244

The results show that race do not influence both in risk taking and confidence level. The other factor that affects risk taking level is get rich quick. People who wants to be rich quick, tends to be more risk taking. The longevity of the investment between men and women is different. Jianakoplos and Bernasek (1998) found that women are more likely to invest in long-term investment compare to men. Women's greater longevity leads them to be more risk aversion than men, because they have a longer period to get the returns and to be rich than men.

From table 6, it shows that the mean of Javanese, Chinese, and Others is in moderate level. Every ethnicity has different philosophy in daily life. This difference can be seen from *narimo ing pandum* and *urip ora ngoyo* (for Javanese) and *zhi or chi* (for Chinese). Hence, they perform differently, in this case in investment decision making. But, nowadays, the difference seems not too significant. Today, there are some successful persons who are not Chinese. Some of successful persons who are not Chinese, for instance:

- a. Martha Tilaar. She is a Javanese cosmetic and herbal beverage entrepreneur. The trade name of her products is Sariayu. In addition, she also has a craft business in Sentolo, Yogyakarta, which is named Prama Pratiwi Martha Gallery and *Kampung Jamu Organik* Cikarang, Bekasi.
- b. Mirta Kartohadiprodjo. She is a journalist and a founder of Femina Grup. She cooperated with her brother and friends to build the first female magazine in Indonesia, called Femina in 1972 (http://id.wikipedia.org/wiki/Mirta_Kartohadiprodjo).
- c. Mahmudi Fukumoto. He is a businessman from Tulungagung. In 2007, he built a company called Keihin Co Ltd. in Japan. He is still Indonesia, but he live in Japan.
- d. Surya Paloh. He is a businessman from Aceh who is the owner of television station, Metro TV. In addition, he is also active as a politician and has newspaper products (Media Indonesia and Lampung Post) that incorporated with Media Group.

Conclusion and Suggestion

Every people has spesific characteristics that differentiate he or she from the biological, attitude in social to the risk attitude and investment perspective. When talking about the investment decision making, people is often with gender stereotype. There is a opinion that men are more risk taking than women. Others believed that men are more confidence and trade more than women.

Then, there is new study from the previous research found other factors, religion and ethnicity. Each religion has different value for daily life even in the investment activities. Every religion teaches people to be more risk averse. But, if people could not control his or her confidence, he or she could be a risk taker. In ethnicity, there are also philosophy for daily life. For Javanese, they tend to be more risk averse, because they believe that God already gives a destiny and they could not reject it. It is different with Chinese people. They believe that they should take a risk because they believe they would receive more ganis after they take pains.

In this reserach, there are some evidences that gender influence both risk taking level and confidence level, but religion and ethnicity do not influence both risk taking level and confidence level. The conclusion of this study are derived from the hypotheses testing in answering the problem statement:

- a. First hypothesis (H.1) which states that gender, ethnicity, and religion influence investors' risk taking level is **not fully supported**. In this research, the author proved that gender influence investors' risk taking level. In contrast, ethnicity and religion do not influence investors' risk taking level. Thus, the first hypothesis (H.1) is not fully supported.
- b. Second hypothesis (H.2) which states that gender, ethnicity, and religion influence the individual investment behavior, which is different type of confidence is **not fully supported**. It is the same with the first hypothesis which the author proved that gender influence investors' risk taking level and ethnicity and religion do not influence. Hence, this second hypothesis (H.2) is not fully supported.
- c. Third hypothesis (H.3) which states that men are more risk taking than women is **supported**.
- d. Fourth hypothesis (H.4) which states that men are more confidence than women is **supported**.

The author faced limitations to do this research, they are:

- a. The number of respondents is not as many as the author expected. There is limited respondents in each Pojok Bursa, so the researcher found difficulties while distributing the questionnaire to the respondents.
- b. Researcher did not put other factors in the questionnaire that might be influence the investment decision, because she only focused on gender, ethnicity, and religion. Age, education level, and even the monthly cash of the respondents that might be related to investment decision.

Therefore, the author suggests that the future researcher can add more respondents to have better result. Besides, researcher can put other factors in the questionnaire that might be influence the investment decision. The researcher can add additional factors, such as age, education level, monthly cash, etc. The researcher alco can differentiate the return between men and women, as well as examine the types of investment preferences made by each respondents, both men and women.

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