# Investor's Behavior in Makassar Against Portfolio Investment Risk the Stock

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#### Abstract

The objective of this research is to know investor behavior toward investment risk in a stock portfolio by using demography approach. The type of this research is field research by using questionnaires to stock investors registered at a security company in the Makassar area. The result is investors' behavior in Makassar against investment risk is neutral to the risk of stocks being a portfolio.

Keywords: Investor's Behavior; Investment Risk; Stock; Makassar



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#### **INTRODUCTION**

The standard financial theory is based on the assumption that investors make decisions rationally. The Efficient Market Hypothesis also believes that share prices reflect all information available under efficient market conditions (Fama, 1970). The traditional theory assumes that investor decisions are based on expected utility theory. Where Expected Utility Theory believes in the concept of rationality and states that investors make consistent and independent decisions among the various alternatives available (Goyal, 2016).

However, various studies have documented that investors do not behave rationally when making a decision. With this view, in the 1980s, a new concept of financial behavior appearing in finance and economics. Behavioral finance is based on two buildings block of cognitive psychology and boundaries for arbitration (Thaler & Barberis, 2002). Cognitive psychology refers to how people think, feel and remember while the limit for arbitrage opportunities that arise in the market and arbitration may not be possible of the advantages of market dislocation due to their irrational behavior.

One of the basic approaches used in stock selection is by technical analysis. But also the growing psychological issues affecting financial markets, this is often known as behavioral finance.

Behavioral finance is the study of investment behavior based on the belief that investors can be irrational. This irrational behavior is like overact, overconfidence (Thaller, 1992) regrets of decisions and others. The famous strategy generated from here is the constraint strategy (Shiller, 2000), which essentially buys stocks which at the time of the assessment are performing wells.

Of the end of 2010, there were 415 companies selling their shares on the Indonesia Stock Exchange (IDX) with total transactions during 2010 of Rp. 1,249.27 trillion or Rp. 5.12 trillion per day, while market capitalization was 3,243, (Zubir, 2012) The number of investors currently nationally as many as 344,872 investors are listed in the capital market. But the local investor in Makassar according to data from the Kustodian Sentral Efek Indonesia (KSEI) in November 2012 approximately 2,808 investors in the capital market (okezone.com, 2012).

Assessment of total investment as the average investment in the capital market is Rp. 4.5 billion – Rp. 5 billion per day while in Makassar alone Rp. 500 billion a month. Growth of shares in Makassar in July 2007 about 434 people, in June 2011 was 1944 investors increased to 3300 as of June 2012, or to Rp.

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600 Billion per month compared with last year. In July 2012, the number of securities firms as many as 16 companies Antara News.Com. (2012).

To know Makassar Investor Behavior against stock risk, the writer is interested in measuring their behavior by using a questionnaire.

# LITERATURE REVIEW

Previous demographic factors are proposed and investigated as a possible driver of investor risk tolerance including age, gender, marital status, number of dependents, education (or knowledge of investment), revenue, and wealth. Data required for risk tolerance studies usually have two sources: a survey of investors and the actual portfolio selection. Requested, or voluntarily, to respond to various risks/returns question. The portfolio. Using the actual portfolio choice, investigators will usually check the ownership of the investor in retirement accounts (Moreschi, 2005).

# Age

Intuitively, most financial advisors and research would hypothesize that age and risk tolerance is have made this conclusion (Hallahan, Faff & McKenzie, 2004 a & b; Palsson, 1996; Bakshi & Chen, 1994; Morin & Suarez, 1983; and McInish, 1982). A of age Proxy, Sung & Hanna (1996), found that the higher risk tolerance for people 30 years or more from retirement rather. However, some recent studies found no association at all (Cutler, 1995) or a positive relationship (Grable, 2000; Grable & Lytton, 1998; Grable & Joo, 1997; Wang & Hanna, 1997).

### Gender

It has long been assumed that gender is significant for risk tolerance. In particular, the man is more tolerant of risk than women (Slovic, 1966). Research has supported this view, that men take more risks than women (Hallahan, Faff & McKenzie, 2004 a & b; Grable, 2000; Grable & Lytton, 1998; Powell & Ansic, 1997; Bajtelsmit & Bernasek, 1996; and Sung & Hanna, 1996). On the opposite. Grable & Joo (1999) and Hanna, Gutter & Fan (1998) each found no significant relationship between gender and risk tolerance. Historically men are more tolerant of risks than women; this difference becomes less common.

# Marital Status and Dependence

Financial advisors tend to believe that marital status affects risk tolerance. As explained by Roszkowski, Sn becker & Leimberg (1993), this may be due to the degree of responsibility one person is facing. A married couple. Married couples are more likely, so less risk tolerance. A married couple may also men had fired more social risks, which can be described as a loss of self-esteem due to investment failure. A married couple with two incomes, however, may have a greater risk tolerance driven by a greater level of risk capacity. Marital, The results of the study, were mixed for the importance of marital status at risk tolerance. Research from Roszkowski, Snelbecker & Leimberg (1993), Sung & Hanna (1996); and Faff, Hallahan & McKenzie (2004 a), supports the view that one person is more tolerant of risk than a married couple. Grable is tolerant of risks than single people (2000). Other did not find significant the relationship between marital status and tolerance risk (see Grable & Joo, 1997; Haliassos and intertwined, 1995; Master, 1989; and McInish, 1982).

# Education

Many studies have found a positive relationship between risk tolerance and the level of formal education. That the assumption that the more formal education, an individual is ready to assess the risk/return tradeoff an investment (Hallahan, Faff & McKenzie, 2004 a; Grable, 2000; Grable & Lytton, 1998; Sung & Hanna, 1996; Shaw, 1996; Riley & Chow, 1992; and Baker & Haslem, 1974).

### **Revenue and Wealth**

Regular income and wealth are believed to have a positive relationship with risk tolerance. Many researchers have found this relationship significant to be significant (Hallahan, Faff & McKenzie, 2004 a; Bernheim, Skinner & Weinberg, 2001; Grable, 2000; Grable & Lytton, 1998; Schoolev & Warden, 1996; Shaw, 1996; and Riley & Chow, 1992). Might be measured by Roszkowski (1998) notes that what might be measured by this result is the risk capacity. That is, higher income or wealth levels give individuals greater capacity to run the risk. Also, It is important to distinguish between absolute and relative risk tolerance.

Researchers generally believe that the absolute amount of income or wealth invested in risky assets is a positive function of income or wealth. Ada risk assets) are positively related to income or wealth. Cohn, Lewellen, Lease & Schlarbaum (1975) did find the relative the risk tolerance of also increased with income and wealth.

### **METHODS**

The research used a questionnaire to measure behavior investor to against portfolio investment risk the stock. Data for this research was primarily collected through a survey in the form of a questionnaire. Primary data refers to data, which is collected for a specific purpose and which is required to complement secondary data (Wiedersheim-Paul & Eriksson, 1997). Self-completion questionnaire seems to be one of the most common methods of quantitative researches. With a self-completion questionnaire, respondents answer questions by completing the questionnaire themselves. This method is chosen for some reasons. The first reason is that as the research questions are defined clearly, questionnaire is the best choice to have standardized data, which is easily to process, and analyze. Especially, as no interviewers are present when the questionnaires are completing, the results may not be affected by the interviewers (Bryman & Bell, 2007, p. 241). Moreover, it is cheaper than other methods (Bryman & Bell, 2007, p. 241). Furthermore, this method helps to save time (Bryman & Bell, 2007, p. 241) so hundreds of questionnaires can be sent out in one batch. As the respondents are investors, they may not have much time for interviews. Thus, questionnaires may make them feel more comfortable because they can do it whenever they have free time. Questionnaires also are more convenient for respondents in case they need to provide some sensitive information, in other words; they tend to be more honest than in an interview (Bryman & Bell, 2007, p. 242).

	Table 1. Questionnaire Question To Measure Investor Behavior Against Portfolio Risk
No.	Question
1.	After 60 days you are investing money in stock, the price down 20%, assuming no
	fundamental factors influence (factors influenced by market, industry, and enterprise
	activities) what will you do?
	a. Sell to avoid those worries overload and try something else.
	b. Do nothing and wait for the investment again.
	c. Buying more, this is a cheap investment.

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2.	Now look at the previous ques on, your stock investment down 20%, but it is part of the portfolio used to fulfill investment objectives with different periods. What you decide:
	a. Sell
	b. Not doing anything
	c. Buy a lotmore
3.	What do you do if the investment objective is 15 years away:
	a. Sell
	b. Not doing anything
	c. Buy a lotmore
4.	What do you do if the investment objective is 30 years away:
	a. Sell
	b. Not doing anything
	c. Buy a lotmore
5.	The investment price on your portfolio share is up to 20% per month, where the fundamental
	factor does not change, then what you will do:
	a. Sell it and lock in your profits
	b. Stay afloat and expect more profit
	c. Buy more and hope for more profit
6.	A stock investment opportunity comes every day, but you should borrow money to get those
	benefits what is you will do:
	a. Do not want toborrow
	b. Maybe
	c. Yes
7.	You have worked for three years at a fast-growing company As an Executive; you are o erred
	the op on to buy up to 2% of the total shares of the company (2000 shares for Rp 10,000 per
	share).
	a. Buy as many stocks of the company as possible and say on majority owners.
	b. Buy a smallamount
0	C. Purchased half of the stock
8.	If you get excess income (bonus, salary 13, lottery) of Rp. 5 million. What do you do with the
	money:
	a. Shopping
	c Buying shares
0	You want to invite company to dinner in a new city. How do you determine the place?
9.	a Read the reviews of local newspaper restaurants
	h Ask a co-worker if he knows a good place
	c. Drive around town for a while to check out the restaurant before inviting dinner
10	The best nicture of your attitude toward money is:
10.	a. Saving everything you get
	b. To spend money to earn money
	c, if possible, use other people's money
l	F

Source: Widoatmodjo (2012).

Table 2. Score value of Each Allswei											
Quis		1	2	3	4	5	6	7	8	9	10
Score	а	1	1	1	1	1	1	3	2	1	1
	b	2	2	2	2	2	2	1	1	3	2
	с	3	3	3	3	3	3	2	3	2	3

Tabel 2. Score Value of Each Answer

Source: Widoatmodjo (2012).

Before making a total score criterion, we first create a range of scores, ie (Sekaran, 2005).

CCCCCCC DDDD	=	HIRHSSH SSSSSSS-	LS LLSSS \$\$\$\$\$\$\$
222222 <b>2</b> KKK <b>X</b>		3	

by the way

SSSSSS <b>S</b> RRR <b>R</b>	$=\frac{30-10}{3}=$	6,6667
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So then we then make the total score criteria as follows:

Total Score = 10 - 16 = risk averse

Total Score = 17 - 23 = risk neutral

Total Score = 24 - 30 = risk taker

# **EXPERIMENT RESULT**

### **Characteristics of Respondents**

The number of respondents used to measure investor behavior against portfolio risk in this study as many as 37 respondents in which the sampling method used is the sampling method is purposive sample and Likert scale. Respondents are from investors listed on eight securities firms from 17 securities active inMakassar.

Of the 17 securities in Makassar, the researcher only distributed questionnaires to 8 securities, while 9 securities were not distributed by questionnaires. There were 3 securities with no activity at PT. Sinar Mas Sekuritas, PT.MNC Sekuritas, PT. Batavia Prosperindo Sekuritas, while 6 securities companies do not give a response that is PT. BNI Sekuritas, PT. Mega Capital, Indonesia, Mandiri Sekuritas. The following distribution of samples on 8 securities, of which 82 questionnaires distributed only 37 respondents who fill the portfolio of stocks, this will be analyzed by the researcher, so that only 37 portfolios of respondents who are sampled in stock portfolio study and investor behavior on risk stock portfolio. The distribution of respondents from 8 securities firms as described in Table 1

From Table 1, the average distribution of questionnaires in 7 securities firms is 10 only PT. Trimegah Sekuritas 4 respondents and PT. Reliance Sekuritas 7 respondents. Further characteristics of the respondents will be illustrated in Table 2, the following:

Characteristics	aracteristics Amount Percentage Characteristics		Amount	Percentage		
	Age		Work			
Under 25	8	21.62	Employers	12	32.43	
26 - 35	1	2.70	<b>Goverment Employess</b>	4	10.81	
36 - 45	15	40.54	Private Employess	15	40.54	

Table 3. Demographic Characteristics of Investor Respondents in Makassar

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>45	13	35.14	Professional	3	8.11	
			Separate	0	-	
	Sex		Marital Status			
Man	22	59.46	Married	21	56.76	
Women	15	40.54	Single	16	43.24	
			Separate	0	-	
Education			Income A Year			
Senior High Scholl	9	24.32	<50 Million	10	27	
Under Graduate	24	64.86	50 - 100 Million	13	35	
Post Graduate	4	10.81	100 Million	14	38	
Phd	0	-				

*Source*: Primer data, 2013.

Based on Table 3 above the most distribution in the age range 36 - 45 as many as 15 people (40.54%) while the lowest in the age range 26-35 as much as 1 person (2.70%). Respondent dominated male gender as much as 22 respondents or about 59.46% while women as many as 15 respondents or about 40.54% of total investors. The majority of respondents have an S-1 education background of 24 respondents or 64.86% and followed by high school background of 9 respondents or 24.32%. S-2 as many as 4 respondents or 10.81%. the percentage of dominant respondent's job is private employee counted 15 respondents or equal to 40.54% and the smallest is Professional work as much as 3 respondents or equal to 8.11%.

To measure investors' behavior on portfolio risk, the researcher used questionnaires, where the questionnaire was distributed to registered investors in 17 securities firms in Makassar. Distribution of respondents based on the characteristics of marital status can be seen that respondents who have married about 56.76%, unmarried 43.24% and split about 0%.

Distribution of respondents based on income characteristics per year can be seen by respondents who have income <50 Million as many as 10 respondents or 27%, who earn 50 - 100 Million as many as 13 respondents or 35%, income > 100 million as many as 14 respondents or 38%.

Furthermore, based on the above criteria, then we can tabulation the results of filling questionnaires by 37 respondents can be seen in the appendix. Based on the appendix, it can be made tabulation results of filling questionnaire of 37 respondents (Table 4)

	Amount	Percentage				
Risk Averse	7	18,92%				
Risk Neutral	23	62,16%				
Risk Taker	7	18,92%				
	37	100				

 Table 4. Tabulation of Questionnaire Filling Results

 Amount
 Percentage

### Source: Primer data, 2013.

From Table 4 which is a recapitulation of the attachment of respondents' answers to the questionnaire, question shows that from the results of questionnaires spread on 37 respondents that 7 respondents or 18.92% of respondents are risk-averse, 23 respondents or 62.16 % are risks neutral and the remaining 7 respondents 18.92% is risk taker or risk challenger. In other words, that overall average investor behavior in Makassar is neutral to risk.

As for the indication of investor behavior seen from the total value of the question on the questionnaire is if the total score on investor answers in Makassar about their behavior against risk are:

- a. 10 to 16 means risk averse.
- b. 17 to 23 means risk neutral.
- c. 24 to 30 means a risk taker

Overall, the score of investors' answers in Makassar about their behavior against the risk of questionnaire questions is neutral, meaning that investors in Makassar if they gain profit and loss are not worried because their attitude to risk is normal. This behavior can not be separated from the influence of investor characteristic in Makassar in demography, as shown in Table 3.

Based on Table 1 known characteristics of investors in Makassar, which became the unit of analysis of this study. In terms of age characteristics that invest heavily in stocks and form a portfolio in the age range 36-45 years of 40.54%, age range> 45 years of 35.14 remaining in the 26-35 years age range and <= 25 years, meaning investors the average is at productive age.

Characteristics of respondents Makassar based on sex is male (59.46%) dominates stock investment compared to women (40.54%). In other words, investors in Makassar are still dominated by men, where men are braver to face portfolio risk compared to women, so it is not surprising that investor behavior in Makassar, in general, is risk neutral.

Investor Characteristics in Makassar, which is the sample of this study, is based on educational studies. See Table 3 is dominated by Under Graduate educational background meaning that investors in Makassar have average undergraduate education. Many studies have found a positive relationship between investor behavior on risk and education level formal. Assessment that with more formal education, individuals are better prepared to assess the risk or return (trade-off) of an investment.

Makassar investor characteristic in terms of marital status (See Table 3) is from 37 investors who become unit of analysis of this study, 56.76% are married the rest is not married. In other words, the average investor in Makassar is already married and certainly has a dependent on his family

# CONCLUSION

Investor behavior on portfolio risk to investor in Makassar in this research sample average investor behavior is neutral to risk. This was possibly influenced by investor age, which averages still productive age that has income and owned property, also have the possibility of decreasing absolute risk aversion. However, if they invest in a risky investment, their income and wealth will be increased.

In addition, the investor age factor in Makassar means that investor's behavior toward risk is higher or bolder with higher formal education background and average investor income above 100 million. The average investor of this research sample is private employees and have married. All these demographic factors have influenced the risk neutrality of investor behavior in Makassar.

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# REFERENCES

AntaraNews.com. (2012) Investor Asing Menguasai 70 Persen Perdagangan saham di BEJ, 24 Juli 2012.

- Bajtelsmit, V.L. & Bernasek, A. (1996). "Why do Women Invest Differently than Men?" *Financial Counseling and Planning*, 7, 1-10.
- Bajtelsmit, V.L. & VanDerhai, J.L. (1997). "Risk Aversion and Pension Investment Choices". In O.S. Mitchell, (ed), *Positioning Pensions for the Year 2000*. Philadelphia, PA: University of Pennsylvania Press.
- Baker, H.K., & Haslem, J.A. (1974). "The Impact of Investor Socioeconomic Characteristics on Risk and Return Preferences". *Journal of Business Research*, 2, 469-476.
- Bakshi, G.S. & Chen, Z. (1994). "Baby Boom, Population Aging, and Capital Markets". *Journal of Business*, 67, 165-202.
- Barber and Odean. (2002), Boys Will be Boys: Gender, Overconfidence, and Common Stock Investment. *SRRN Journal*.
- Bernheim, B.D., Skinner, J., & Weinberg, S. (2001). "What Accounts for the Variation in Retirement Wealth among U.S. Households". *American Economic Review*, 91, 832-857.

Bryman, A., & Bell, E. (2007). Business Research Methods (2nd ed.). Oxford University Press.

- Bryman, A., & Bell, E. (2011). Business Research Methods (3rd ed.). Oxford University Press.
- Cohn, R.A., Lewellen, W.G., Lease, R.C., & Schlarbaum, G.G. (1975). "Individual Investor Risk Aversion and Investment Portfolio Composition". *Journal of Finance*, 30, 605-620.
- Cordell, D.M. (2001). "RISKPACK: How to Evaluate Risk Tolerance". *Journal of Financial Planning*, June, 36-40.
- Cutler, N.E. (1995). "Three Myths of Risk Tolerance: What Clients are Not Telling You". *Journal of the American Society of CLU & ChFC*, 49, 33-37.
- Droms, W.G. (1987). "Investment Asset Allocation for PFP Clients". *Journal of Accountancy*, 114-118.
- Fama , (1970) Efficient Capital Markets A Review of Theory and Empirical Work, *The Journal of Finance*,Vol.25.no.2 December 1969.pp.383-417.
- Goyal (2016), Evidence on Rationality and Behavioural Biases in Investment Decision Making
- Grable, J.E. & Joo, S. (1997). "Determinants of Risk Preference: Implications for the Family and Consumer Science Professionals". *Family Economics and Resource Management Biennial*, 2, 19-24.
- Grable, J.E. & Joo, S. (1999). "Factors Related to Risk Tolerance: A Further Examination". *Consumer Interests Annual*, 45, 53-58.
- Grable, J.E. & Lytton, R.H. (1998). "Investor Risk Tolerance: Testing the Efficacy of Demographics as Differentiating and Classifying Factors". *Financial Counseling and Planning*, 9, 61-73.
- Grable, J.E. (2000). "Financial Risk Tolerance and Additional Factors That Affect Risk Taking in Everyday Money Matters". *Journal of Business and Psychology*, 14, 625-630.
- Haliassos, M. & Bertaut, C.C. (1995). "Why do so few hold stocks?" *The Economic Journal*, 105, 1110-1129.
- Hallahan, T.A., Faff, R.W., & McKenzie, M.D. (2004a). "An Empirical Investigation of Personal Financial Risk Tolerance". *Financial Services Review*, 13, 57-78.
- Hallahan, T.A., Faff, R.W., & McKenzie, M.D. (2004b). "The Gender Thing: Women and Risk Tolerance in an Aging World". Working Paper.
- Hanna, S., Gutter, M., & Fan, J. (1998). "A Theory Based Measure of Risk Tolerance". Proceedings of the Academy of Financial Services, 10-11.
- Masters, R. (1989). "Study Examines Investors' Risk-taking Propensities". *Journal of Financial Planning*, 2, 151-155.
- McInish, T.H. (1982). "Individual Investors and Risk-Taking". *Journal of Economic Psychology*, 2, 125-136.
- Moreschi. (2005). An Analysis Of The Ability Of Individuals to Predict Their Own Risk Tolerance, Journal of Business& Economics Research - February 2005, Vol. 3 Number 2

Morin, R.A., & Suarez, F. (1983). "Risk Aversion Revisited". *The Journal of Finance*, 38, 1201-1216. Okezone.com," *Ada 2.808 Investor Di Pasar Modal Makassar, 7 December 2012.* 

- Palsson, A.M. (1996). "Does the Degree of Relative Risk Aversion Vary with Household Characteristics?" *Journal of Economic Psychology*, 17, 771-787.
- Powell, M. & Ansic, D. (1997). "Gender Difference in Risk Behaviour in Financial Decision-Making: An Experimental Analysis". *Journal of Economic Psychology*, 18, 605-628.
- Riley, W.B., & Chow, K.V. (1992). "Asset Allocation and Individual Risk Aversion". *Financial Analysts Journal*, 48, 32-37.
- Roszkowski, M.J. (1998). "Risk Tolerance in Financial Decisions". *Readings in Financial Planning*, 3rd ed., 281-327.
- Roszkowski, M.J., Snelbecker, G.E., & Leimberg, S.R. (1993). "Risk-Tolerance and Risk Aversion. In S.R. Leimberg, M.J. Satinsky, R.T. LeClair, & R.J. Doyle, Jr. (eds), *The Tools and Techniques of Financial Planning* (4th ed., 213-225). Cincinnati, OH: National Underwriter.
- Schooley, D.K. & Worden, D.D. (1996). "Risk Aversion Measures: Comparing Attitudes and Asset Allocation". *Financial Services Review*, 5, 87-99.
- Shaw, K.L. (1996). "An Empirical Analysis of Risk Aversion and Income Growth". *Journal of Labor Economics*, 14, 626-653.
- Shiller. R.J. (1986)." Survey Evidence Regarding the September 11- 12 Stock Market Drop," Yale University.
- Slovic, P. (1966). "Risk taking in Children: Age and Sex Differences". *Child Development*, 37, 169-176.
- Sung, J. & Hanna, S. (1996). "Factors Related to Risk Tolerance". *Financial Counseling and Planning*, 7, 11-20.
- Thaler, R., & Barberis, N. (2002). A Survey of Behavioral Finance, National Bureau of Economic Research, Working Paper 9222.
- Wang, H. & Hanna, S. (1997). "Does Risk Tolerance Decrease with Age?" *Financial Counseling and Planning*, 8, 27-32.
- Widoatmodj, Sawidji, (2007). Cara Benar Mencapai Puncak Kemakmuran Financial Ala Robert T Kiyosaki. Jakarta: PT. Gramedia.
- Zubir, Zalmi. (2011). *Manajemen Portofolio Penerapannya dalam Investasi* Saham, Salemba Empat, Jakarta.