Understanding Risk Appetite and Tolerance: The Turkish Case

Full Text / Tam Metin

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Abstract

Introduction: *Most of the traditional economic theories used to explain investor behaviour assume full investor rationality but, experience proves otherwise* ***Aim***: *The aim of the study is to find out whether in Turkey investment decisions vary according to differences in gender.* ***Method:*** *The survey is administered among a random sample of 1,648 respondents from Turkey.* ***Findings:*** *It is found that on average men exhibit a higher level of risk appetite and tolerance than women, thus suggesting a clear gender divide in terms of investment behaviour.*

Key Words: *Behaviour Finance, Turkey, Gender, Risk Appetite, Risk Tolerance, Economic Theory*

INTRODUCTION

Knowing that markets will experience periods of decline for unexpected reasons and periods of sudden boom as a result of unusual activity can prepare us to ride out the uncertainty that volatility brings, without making trades that we will later regret. In order to refrain from purchasing overpriced stock and/or dumping oversold valuable stock, a deeper study into the real forces behind what drives the stock price to reach such extremes is a needed.

In most instances, unlike what traditional economic theories hold, only parts of the stock price actually represents the real company value. A substantial portion of the price is normally a product of herd trading and extreme manic behavior, which is being explained through a relatively new science called Behavioural Finance.

Such knowledge can be applied to our investment portfolio in order to help us act in a more logical manner. By attempting to understand the illogical factors that influence the market, we can fully start to reap all the benefits that both schools of thought have to offer. Learning from our mistakes and developing the ability to apply such theoretical models into everyday practice is essential to reducing the rates of error that cloud our rational judgements.

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It can be held that most of the traditional theories assume that investors act rationally. Nevertheless, real world historical events such as the Wall Street Crash in 1929, the dot-com bubble in 2000 and the financial crisis in 2008 have proven that the more traditional schools of thought left certain irrationalities unexplained.

This is where the concept of Behavioural Finance gained most notoriety. Evidence provided by Tversky and Kahneman (1974), shows that repeated waves of irrationality by individuals are present throughout history. Behavioural finance attempts to do away with the assumption of full rationality in order to uncover the real forces behind financial failures. It is a behavioural science that incorporates psychological, cognitive, emotional and social concepts in order to correctly identify and explain the irrational behaviour normally portrayed by investors.

Investment decisions made by the investor will also ultimately affect the country's economy and its rate of progress. Investment irrationalities can lead to irregularities in an individual's investment portfolio; having a surplus of one investment product such as term deposit accounts held at a bank may be opted for at the detriment of investing in other financial instruments such as fixed interest securities and equity that may contribute greatly to the country's economic growth. Irrational and myopic behaviour can also prove to be particularly problematic due to the excess risk resulting from the overexposure of certain financial instruments. Thus, it is of utmost importance to consider and better understand the psychological, emotional and social factors that shape the average Turkish investor.

This study will attempt to determine whether there are any differences in investment decision-making between men and women in Turkey. The presence of such differences will be tested by measuring and comparing the degrees of risk aversion between men and women. Comparisons based on the risk score levels obtained for men and women will be carried out on both a general level and on the basis of a number of demographic categories such as education, level of experience within the financial markets, age and marital status. Further testing will also be carried out on whether men and women are equally affected by the prospect theory.

The aim of the study is to find out whether in Turkey investment decisions vary according to differences in gender. In order to carry out the research, the primary focus will be on highlighting any differences that may be present in the levels of investment risk aversion between men and women.

This since according to the traditional economic theory there should be no differences present in risk aversion between men and women since it is assumed that all investors act rationally. If, however, on the other hand differences do exist, then the traditional models of economic theory are not sufficient and one must look elsewhere for a more plausible and rational explanation as to why men and women invest differently.

In Turkey, the subject of Behavioural Finance is still relatively new. This study will attempt to help raise greater awareness on the importance of the adverse effects that psychological, emotional and socio-cultural elements may have on the investment decision-making process of individuals.

METHODOLOGY

The population considered in this article consisted of Turkish residents. We administered a survey questionnaire via email using a non-probability convenience and snowballing sampling to participants through relationships we had with Turkish residents, who introduced/referred further participants (Freedman *et al*. 2007) and (Biernacki and Waldorf, 1981).

The structured survey questionnaire was constructed purposely for this study. It consisted in 2 sections. In the first section we asked for data relating to demographics of the participants, specifically asking their 'gender', their 'marital status', their achieve 'education level' and their 'financial knowledge', and in the other section, (2) we focused on 13 multiple choice questions, 8 of them having 4 answer options, 3 having 3 answer options and 2 having 2 answer options, to determine the participants risk appetite and tolerance. (Refer to Appendix 1 – the questionnaire).

After receiving the answers from 1,648 respondents, we used Stata statistic package version, to analyse our data. We analyse the data using the method of Ordinary Least Squares (OLS) in order to derive quantitative relationships between risk appetite and tolerance and a number of key determinants, including demographics, education/knowledge and loss aversion. To control for potential heteroscedasticity across responses we utilise robust standard errors as per Arellano (1987).

ANALYSIS

The sample consists mainly of male (70%) respondents. Also our sample is relatively young, with the largest category being the 18 to 30 cohort, followed by the 31 to 40 group. In fact, the average age of our sample is 34, and this must be kept in mind when considering the applicability of the results derived in this section.

The vast majority of respondents (62%) have either a certificate or diploma, followed by secondary school level of education (18%) and a Master's degree (12%), which suggests that our sample has a relatively low level of formal education overall. Nonetheless, it appears that our sample is well-versed when it comes to financial knowledge, with the majority of respondents (34%) stating that they had formal schooling in financial services or a related area, with another 24% having practical experience through work within the financial services industry.

i) The determinants of risk appetite and tolerance

a) Risk appetite:

The results show that men on average have a higher risk appetite than women, which is consistent with other papers within the literature (e.g. Borghans et al, 2009; Charness & Gneezy, 2012) who find significant gender differences in risk aversion and appetite across genders. In addition, older respondents have a lower level of risk appetite relative to younger people, consistent with earlier findings (e.g. Morin & Suarez, 1983), while married individuals also have a lower level of risk appetite, which may in part reflect changing priorities and personal situations (Arano et al, 2010). We also find that while respondents with a higher level of formal education have lower levels of risk appetite, people with increased levels of financial knowledge have a higher risk appetite. These findings are particularly interesting, because they suggest that while formal education tempers one's appetite for risk (in line with authors like Riley & Chow, 1992), knowledge and training in financial matters actually makes people more open to risk, which may reflect several factors including more informed investment decisions, increased confidence in one's own investment abilities, increased proclivity to undertake trades, etc.

(Van Rooij et al, 2011). Turning now to equation (2), the coefficient on loss aversion suggests that individuals who are loss averse also have a lower risk appetite on average. This result indicates that loss aversion reduces an individual's openness to risk, which may in part reflect the salience of potential losses rather than potential gains for people who are loss averse (e.g. Milkman et al, 2012).

b) Risk Tolerance:

As seen below, most of the findings obtained with regards to risk tolerance are broadly similar to those for risk appetite. More specifically, men are more tolerant of risk, as are younger respondents and those with higher levels of financial knowledge. Conversely, married respondents (in equation 3 only) and loss averse individuals (equation 4) both have lower levels of risk tolerance, which are all consistent with various other findings in the literature as cited earlier. The only key difference is when it comes to education, since in this case the results suggest that higher levels of education are associated with higher risk tolerance, contrary to what was found for risk appetite. Nonetheless, this is in line with various other papers within the literature (e.g. Sung & Hanna, 1996; Grable, 2000), who also find a positive and significant correlation between education and risk tolerance, and who suggest that this may be due to improved understanding of what risk entails as well as higher incomes and economic expectations..

CONCLUSION

The results elicited from this paper have a number of important implications. Firstly, they suggest a clear divide when it comes to risk attitudes across men and women, which may signal the need for greater gender balance within financial institutions and investment committees in order to reflect a greater diversity in risk appetite and tolerance. Secondly, our findings suggest that formal training or knowledge in financial services increase both risk appetite and tolerance. On the one hand, this may reflect greater knowledge of risk and possible mitigation strategies, but on the other hand this may be due to overconfidence and lack of downside awareness, which may have significant detrimental effects on both investment performance and returns (e.g. Barber & Odean, 2001). Thus, it is important to assess the content of formal financial services courses and training programmes to ensure that the material adequately covers potential downsides to investment and the importance of risk mitigation. Finally, our paper also highlights the importance of loss aversion as a deterrent to risk appetite and tolerance. This underscores the need to incorporate behavioural biases such as loss aversion in all aspects of policymaking and client relations, as well as the potential role of framing effects in determining investment decision-making under risk.

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