Behavior finance – The impact of financial behavior on economic decision-making of individuals in Albania

Quantitative study of risk resistance and overconfidence based on gender approach

Aurora Molishti, MSc.[1]

Department of Economics & Finance,
European University of Tirana
amolishti2@uet.edu.al

Dr. Sokol Ndoka[2]

Department of Economics & Finance,
European University of Tirana
sokol.ndoka@uet.edu.al

[1] Aurora Molishti, MSc., is a graduate student in Master of Science in Finance, Accounting and Financial Reporting, at Department of Economics, Business and Development at European University of Tirana. During her academic years she has been part of different student`s clubs and programs like Erasmus +, student exchange program in Pavia, Italy. During her five years of studies at European University of Tirana she has been awarded with excellence certificates and was a holder of full scholarship. Currently she is working at Deloitte Albania & Kosovo, in the position of Tax Consultant in the Tax & Legal Department.

[2] Dr. Sokol Ndoka has completed higher studies, Bachelor in the period 2007-2010 and Master of Science in the period 2010-2012, profile Management, Faculty of Economics at the University of Shkodra "Luigj Gurakuqi". During the period 2013-2018, Ndoka completed his Doctoral studies in Finance profile at the Faculty of Economics and IT at the European University of Tirana with the topic "FINANCIAL RISK MANAGEMENT, CONDITION FOR BANKING; PERIOD 2006-2015. During the period 2012-2013, he worked as an Assistant Accountant at the company Edi-Elt Consulting & Account. In February 2015, Ndoka began working as an external lecturer in the department of Finance & Economics, Faculty of Economics, and IT at the European University of Tirana. Since October 2015, Ndoka has been working as a professor at the European University of Tirana.

Abstract

For years the field of behavioral finance tries to explain economic actions and decisions in financial markets based on financial, psychological, and emotional factors, which affect the behavior of investing individuals. Various studies show that males are more tolerant of risk and make more risky decisions than females. The fact that men trade more than women in financial markets is attributed to the overconfidence they have. Men in addition to trading more, also own larger financial portfolios than women, but less diverse than they are.

The purpose of this paper is to investigate whether gender can really influence financial decisions through risk aversion, gender, and overconfidence. The data in this paper were collected through a very close population survey, explicitly students at European University of Tirana and an Albanian individual with financial knowledge. To measure statistical differences between the gender the Chi2 statistical test was used. Through empirical findings and analysis of data obtained from the statistical test was concluded conclusions from this study. It was found that there is a tendency among females to have a higher level of resistance to risk than males. This means that Albanian women will undertake a lower risk when managing an investment portfolio. Albanian men, meanwhile, have more confidence in their financial decisions.

Key words: *Behavioral finance, financial decision making, gender approach, risk aversion, overconfidence, Chi^2 testing.*

1. Introduction

"If you are relying on your gut rather than a rule-based approach to investing, you can be almost certain that your feelings of risk or safety are exactly the opposite of what they ought to be."
- DANIEL CROSBY,
The Law of Wealth: Psychology and the Secret to Investing Success.

If one day you were offered 100 million ALL and you were told that you had to invest these funds, how would you act? What would be the first financial decisions you would make? How would you describe yourself as an individual who likes to "play" with risk or has an opposing attitude towards it? How do you consider your ability to manage personal finances? Behavioral finance is the latest innovation which is being used by many economics analysts to study financial markets and how investors operate in it. Numerous scholars have concluded that most financial phenomena cannot be understood using only older models of traditional finance.

Over the years humanity has faced various economic decisions. All aim for an efficient market where the pricing of securities will provide important information to investors and the latter will follow different strategies to achieve a good performance and high profitability. In most cases it is difficult to have "accurate" meters of these securities, so their price does not always indicate their real value.

1.1 Study Objective and Research Questions

The main objective of this research paper is to understand and evaluate the theoretical aspect of behavioral finance and to analyze how the culture, habits and financial behavior of Albanian individuals will affect their economic decisions and various investments in the financial market by understanding the notion risk, decision-making bias, or overconfidence, analyzing these on a gender basis.

The research questions raised in this paper are as follows:

- What is the approach of Albanian women and men regarding risk during the economic decision-making process before and after the pandemic of Covid-19?
- Are Albanian women less confident and more rational in their economic decisions compared to men?
- Do Albanian men have more confidence in their financial decisions than women?

Based on the literature review, it was concluded that the main factors influencing the decision-making of individuals are their relationship with risk (whether they are riskier or less), belief in their choices, reaction to the information provided and culture. The null hypothesis raised in this research study is as follows:

"In Albanian society, before and after the COVID-19 pandemic, men have a higher risk profile and are more confident in their economic decisions compared to women."

2. Literature Review

Behavioral finance seeks to better understand and explain how risk response, decision-making bias, rational behavior affects individuals, and their decision-making process. Many discoverers believe that the study of psychology and other social sciences can shed considerable light on the efficiency of financial markets, as well as explain many stock market anomalies, market "bubbles" or its "destruction" (Shiller, 2002). Psychologists Daniel Kahneman and Amos Tversky are considered the fathers of behavioral finance. During the 1960s, studies on financial behavior increased, as economists began to find behaviors or anomalies that could not be explained solely based on the traditional economic theories of the time. These anomalies encouraged many academics to turn to psychology for a more accurate explanation of human behavior and its effects on financial decisions. According to Ricciardi & Simon (2000) the key to determining behavioral finance is to first have basic knowledge in the field of psychology, sociology, and finance.

2.1 Cognitive Bias

Cognitive Bias is the way in which female and male individuals perceive reality. According to Charupat and Deaves (2003) cognitive bias are distortions that occur in the human mind, which are impossible to avoid and lead individuals to a judgment not very close to reality. Buchanan and Huczynski (2004) agree that cognitive biases are systematic distortions of financial decisions made by individuals. According to the study of Richard McMahon (2002), biases lead individuals to overestimate the reliability and validity of the information they possess during the decision-making process. They draw incorrect conclusions that affect their financial decisions.

2.2 Overconfidence

Since we are human beings, we have a predisposition to overestimate our abilities and to believe a lot in the prediction we may have made about our success. According to Klayman, Soll, Dance and Barlas (1999) and Dittrich, Buth and Maciejovsky (2001) most people have overconfidence about their judgment and knowledge of financial decisions. Nevis (2004) in his study notes that analysts and investors are incredibly confident in the areas in which they specialize and have knowledge. One of the subsequent effects of confidentiality is overcoming it, which leads individuals to inefficient decisions. During their study Busenitz and Barney (1997) found that male individuals who had overconfidence made more risky financial decisions than female individuals. Barberis and Thaler (2003) claim that excessive belief stems in part from two biases such as self-attribution and the prejudice.

2.3 Cognitive Finance Disputes

According to Morton (1993) individuals who are confronted with different financial ideas and decisions from their own begin to feel inwardly tense and have constant anxiety. We, as human beings, have the predisposition to face our inner emotions based on 2 simple ways (Morton, 1993):

- Justify the decision or choice we have made about a situation or event.
- To achieve those past opinions or past emotions change their value.

Goetzman and Peles (1993) conducted a study on how the theory of cognitive financial arrangements influences the economic decisions of financially invested investors. According to them, the cognitive disputes that these mutual fund investors have, relate to their investments in the process of buying, selling, or holding their assets. The theory of cognitive financial disputes shows that investing individuals find it easier to change their method of investing or their financial confidence and only to protect their financial choice.

2.4 Mental Accounting

Hirshleiper (2001) defines mental accounting as a framework that maintains the gains and losses that are the result of financial decisions that female and male individuals make. Mental accounting is a concept developed by Thaler in 1985. He defines mental accounting as a trend where people divide their income and other assets into different classes or categories with different time periods and each of these accounts is treated in different ways (Thaler, 1985). Mental accounting can lead individuals to make unsuitable financial decisions. According to the study by Charupet & Deaves (2003) mental accounting has major implications for daily life. It has a direct impact on how individuals feel about spending money or how to save it in the future. So, it affects the way people react to losses or profit.

2.5 Loss Aversion

Loss Aversion has a close relationship with the concept of mental accounting (Charupat, & Deaves, 2003). The first researchers to propose the concept of loss aversion were Kahneman and Tversky. They concluded that the consequence of the loss on the happiness of individuals was greater than the gain of the same amount (Kahneman & Tversky, 1979). According to Kahneman and Tversky, resentment towards loss is related to the tendency that individuals have towards loss. They would rather avoid the latter than focus on profit. Thus, these individuals make erroneous decisions.

2.6 Overreaction & Underreaction

Generally, in the financial market investors often over-react or under-react to new information, which has a powerful effect on the stock price. But what do the terms over-reaction and under-reaction mean, and when do investors experience these events?

People, to a large extent, base their decisions on the latest information, but forget the importance of information in the past, and this is what is called over-reaction. Lankonishok, Shleifer & Vinshy (1994) concluded that forms that had high E / P and C / P ratios would have lower profits and conversely forms that had these ratios at low levels would tend to high profits, this for the sole reason that the market over-reacts to increased profit and is surprised when the opposite happens.

Just like the over-reaction, the under-reaction is just as frequent in the stock market. According to Jegadeesh & Titman (1993) stocks that have had high returns a year ago tend to have a higher return for 3 to 6 months in a row. Markets that are in the sub-reaction do not use positive signals about the repurchase of shares in the future (Fama, 1998). Michaely, Thaler & Womack (1995) concluded that investors under-react to the stock price when negative information is initially disseminated, but also when they possess positive information about dividend distribution.

3. Empirical Analysis

3.1 Methodology

The methodological tool used to generate the data is the structured questionnaire, which was borrowed from the works of the authors Jonar Bergger & Romulando Gonzales and Mustapha Chaffai & Imed Medhioub and then processed to suit the target group and make the questionnaire more accessible. Completion of this questionnaire was made possible through the Google Forms platform, the link of which was sent to individuals to participate in this study. The final questionnaire contains 16 multiple-choice questions and is divided into two sections. The first section is composed of 6 questions, which are asked about the age group, educational background, profession, and monthly income of individuals. While the second section consists of questions of psychological and financial nature. This section is based on some supposed cases, where individuals will choose what their economic decision would be in each situation.

To understand gender-based financial decision-making in a more general way, questionnaire evaluation will be made possible using quantitative methods. The data collected for this paper will be measured and analyzed using the Chi2 independence test that will be used to verify whether the hypothesis of this study will be validated or not.

3.2 Questionnaire Results

The results will be presented with the help of tables to provide a clear picture and to understand as accurately as possible the difference between female and male individuals in terms of risk aversion and the level of trust they have in their financial decisions. In this questionnaire 160 individuals were interviewed. At the beginning of the survey focused on general questions about the individuals taken in the study, to obtain an accurate summary of the data. The first question related to the gender of the respondents which is one of the variables on which the paper is based. The questionnaire was attended by 80 male and 80 female individuals. With a percentage respectively 50% male and 50% female. Out of 160 respondents, we notice that we have a diversity of age groups in this paper, but the highest percentage is in the age group 18-25 years, this is because as discussed at the beginning respondents were mainly student at the European University of Tirana. Of the respondents 2 have secondary education with a frequency of 1.3%, 29 individuals have bachelor education and have a frequency of 18.1%, 110 are of master education with a frequency of 68.8% and 19 have executive titles or doctorates with a frequency of survey 11.9%.

In the second section of the questionnaire, it will be possible to differentiate gender in the approach with risk and self-confidence of individuals. The females and males surveyed were placed in the same hypothetical situation. In this part of the analysis, it will be possible for Albanian women and men to access the variables taken in the study, it will be possible to answer the research questions raised at the beginning of this paper and to accept or reject the study hypothesis.

We note that out of 160 respondents 6 individuals have never invested in the financial markets with a frequency of 3.8%. 73 respondents had ever invested and have 45.6% frequency while 81 individuals with 50.6% frequency had invested regularly in financial markets.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.6299[a]	1	<.005
Likelihood Ratio	6.1796	1	<.005
Linear-by-Linear Association	5.3843	1	<.005
N of Valid Cases	160		

Chi2 test shows that responses between the genders are different at a 95% confidence level. There is a significant relationship between gender difference and frequency of investment in financial markets X2 (1, N = 160) = 5.6299, p = 0.005. Albanian men are more likely to invest regularly in the financial markets than women (80.0% to 21.3%).

Individuals who completed the questionnaire of this study 52 of them undertake high risk financial transactions, this represents a frequency of 32.5%. 82 respondents undertake risky financial transactions, but how did they do the necessary research on this step, and this occupies 51.2% in the gender approach to this alternative. 26 individuals avoid risk at a rate of 16.3%. The most preferred alternative among Albanian men with a 55% frequency was that they thought they were taking high risks, while 63.7% of Albanian women reported that they undertook risky financial transactions only after doing sufficient research. Whereas only 38.8% of men took the risk after having done the necessary research. Finally, 26.3% of women viewed themselves as risk averse, while of men only 6.3% saw themselves as risk averse.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.9647[a]	1	<.005
Likelihood Ratio	4.2952	1	<.005
Linear – by – Linear Association	3.6423	1	<.005
N of valid Cases	160		

Chi2 test shows that responses between the genders are different at a 95% confidence level. There is a significant relationship between the gender difference and the risk response X2 (1, N = 160) = 3.954, p = 0.005. Albanian men consider themselves more risk takers than Albanian women (55.0% to 26.0%).

Questions from 3-7 measure respondents' resistance to risk. 67 of the individuals who completed the questionnaire chose the investment alternative with 50% at low risk, 30% at medium risk and 20% at high risk with a frequency of 41.9% and 58 of them chose the investment option with 25% risk low, 20% medium risk and 55% high risk with a frequency of 36.3%. While according to the gender division most of the men (44 of them) with a frequency of 55% chose the investment option with 25% at low risk, 20% at medium risk and 55% at high risk. On the other hand, most Albanian women (38 of them) with a frequency of 47.5% chose the investment option with 50% at low risk, 30% at medium risk and 20% at high risk.

The last question is intended to provide data on how individuals who participated in the questionnaire manage their financial investment portfolio. It will be analyzed if they find satisfaction in managing this portfolio if they have confidence in their knowledge and skills or manage it only because they enjoy discretion. The importance of this question is to understand, through the collected data, how confident and how confident Albanian individuals are with their economic decisions. We note that 69.4% of Albanian individuals are confident in their ability to manage their financial portfolio, while 18.8% of them take satisfaction when making financial decisions. In the gender approach most Albanian men with a frequency of 86.3% have confidence in their abilities regarding the diversification of the financial portfolio while 52.5% of women think the same. 10% of men find satisfaction during their portfolio management process while only 27.5% of women have this approach.

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	2.199[a]	1	<.005
Likelihood Ratio	2.319	1	<.005
Linear – by – Linear Association	0.021	1	<.005
N of Valid Cases	160		

Chi2 test shows that responses between the sexes are different at a 95% confidence level. There is a significant relationship between the gender difference and confidence in the management of personal financial portfolio X2 (1, N = 160) = 2.199, p = 0.005. Albanian men have more confidence in portfolio management than Albanian women (86.3% to 52.5%).

3.2 Data Analysis

In this part will be made a connection of the theoretical framework on risk resistance, overconfidence, and the regime of loss of Albanian respondents in financial markets with empirical findings from data collection from the questionnaire which was completed by 160 individuals. The method of analysis will be the same as the empirical findings of the data to make it as clear and understandable as possible. This section will discuss the results of these findings and address the behavior of Albanians in various economic situations, what is their reaction to the financial information obtained and how different factors influence their financial decisions. One of the aims of this study is to determine if gender difference can have a significant impact on economic decisions. In this study, primary data were collected to answer research questions regarding the impact of the above-mentioned factors and gender differences in the financial decision-making of Albanian individuals. Empirical findings can distinguish gender tendencies in the approach to loss, risk aversion or even excessive self-confidence. In this paper the Chi2 statistical test was used to check the importance of these differences through the data collected from the questionnaire. This test makes it possible to state whether gender differences and factors such as risk avoidance and excessive self-confidence really have an impact on the financial decisions of Albanian individuals. A reliability level of 95% was used during this test. From the above empirical data and from the comparison with the data analysis before COVID-19 in the Bachelor thesis it was possible to obtain some of the following answers:

- Albanian men continue to have access to financial markets more than women even after the COVID-19 pandemic.
- Albanian women continue to make financial decisions with less risk than Albanian men who take higher risks compared to them.
- Real estate continues to be the favorite investment of Albanian individuals even after the pandemic.
- Albanian women make financial decisions based on the past performance of the company in which the investment can be made, while men trust their intuition by making those individuals who have higher self-confidence.
- In the situation when individuals were faced with a loss, it was observed that men again chose to invest in assets that had high returns but at the same time very high risk, while women avoided risk.

3.3 To what extent does gender difference influence the financial decisions of an Albanian individual; are Albanian women more risk averse than men?

During the literature review, in a paper conducted by two researchers Bernasek and Shwiff (2001) concluded that gender approaches are one of the main factors influencing the financial decisions of individuals. They argued that women are more conservative about their financial investments than men. According to Barber and Odean (2001) gender approach plays an essential role in the financial decision making of the individual. Regarding risk avoidance Ganzach (2001) argues that: "Risk is the first element that comes to everyone's mind during the financial decision-making process." According to him, women and men react differently to financial risk. In this dissertation it was noted that Albanian women both before and after the COVID 19 pandemic invest less in financial markets than men. Meanwhile, many researchers conclude that women are more inclined to avoid risk, but the same trend is in this paper.

3.4 Do Albanian men have more trust in their financial decisions than women?

Various studies regarding gender-based excessive trust have shown that men have excessive self-confidence while women are less confident in their financial decisions. According to Graham (2002) women who have a low tendency to make high-risk financial decisions will show less self-confidence during the financial decision-making process. In the questionnaire of this paper there were 5 questions that made it possible to assess the level of self-confidence in Albanian men and women. In general, it is observed that Albanian women consider themselves below the average level in relation to men towards risk acceptance.

4. Results and Recommendations

The introductory chapter of this paper states that the main purpose is to determine whether gender can have an impact on the financial decisions of Albanian individuals. It has also been studied whether there was a relationship between risk aversion, overconfidence, loss response and gender. The paper was made possible by the questionnaire and the data obtained from it, which helped to obtain answers to the research questions. The population used was students and professors at the European University of Tirana and individuals who have financial knowledge. With the help of the analysis of the data obtained from the questionnaire, the following conclusions were reached:

- It was found that Albanian women are more conservative before and after the COVID-19 pandemic about their financial decisions compared to Albanian men surveyed in this paper. Albanian men tend to completely disregard risk-free investment.
- After studying risk aversion, it was concluded that women are more risk averse than Albanian men. This indicates that men make more risky financial decisions.
- Regarding overconfidence, it is concluded that Albanian men have more confidence in themselves when making different financial decisions compared to Albanian women.

After drawing the conclusions of this study, the hypothesis raised in the first chapter of this paper is confirmed, that “In Albanian society, both before and after the COVID-19 pandemic, men have a higher risk profile and are more confident in decisions. their economic situation compared to women.”

The following recommendations were developed based on literature review and empirical data analysis.

- Understand risk and cognitive bias.
  Behavioral finance is a relatively young and almost unknown field in Albania. This paper provides information to Albanian individuals on the role of risk and cognitive bias in their financial decisions.
- You need to know yourself.
  Albanian men and women should be aware of all the risks and financial losses they are prone to before concluding these financial decisions. They need to evaluate the results of their decisions and the elements they considered during the decision-making process to trust their judgment and what to avoid.
- Research opportunities in the future in relation to the field.
  This paper can be a basis for the further development of this field, this creates opportunities for future research.

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