

## **The Determination of The Factors Affecting The Perception of University Students Regarding Financial Risks: An Example of Pamukkale University**

**Veli Rıza KALFA**

Pamukkale University  
Honaz Vocational  
School,  
Denizli, Turkey  
[vrkalfa@pau.edu.tr](mailto:vrkalfa@pau.edu.tr)

**Engin ÇAKIR**

Adnan Menderes University  
Faculty of Economics and  
Administrative Sciences,  
Aydın, Turkey  
[engincakir@adu.edu.tr](mailto:engincakir@adu.edu.tr)

**Gülşah Sezen AKAR**

Adnan Menderes University  
Faculty of Economics and  
Administrative Sciences,  
Aydın, Turkey  
[gsezen@adu.edu.tr](mailto:gsezen@adu.edu.tr)

### **Extensive Summary**

#### **Introduction**

Investors have faced with a choice between expected return to state while deciding in which investment instruments they would invest. While the investors who want to earn more revenue have preferred in direction of investment instruments having high risk, those who want to protect their savings from inflation have preferred the investment instruments having low risk. Investors holding investment instruments at low risk level in their hands gain more ground rather than those having investment instruments at high risk level. There are many factors influencing on investors' decisions in taking risk. These factors may be their level of income as well as their demographic characteristics such as gender, marital status and age.

Regarding to studies conducted on this issue, it is concluded that one of the factors affecting the financial decision making process is also demographic factors. In other words, the influence of demographic factors is statistically significant in people's risk preferences. By examining studies conducted in our country, it is concluded that target population of the study was determined as actual investors, university students having the potential of investor had been excluded from the study. It is believed that the relevant deficiency would be resolved by this study.

#### **Purpose and Scope of the Study**

The purpose of this study is to determine if the demographic factors of the students studying in different parts of the Faculty of Economics and Administrative Sciences in Pamukkale University cause any significant difference on their financial risk perception.

The target population of the study is composed of students studying in third and fourth grade of Business, Economics, Finance, and Econometrics Public Administration departments of Faculty of Economics and Administrative Sciences in Pamukkale University. The only reason why limited to students studying in third and fourth grade is the fact that they had participated in Financial Management course and derivatives where the issues such as financial risks, returns, portfolio management are taught. In other words, such limitations were applied in order that results obtained from this study can be more consistent. In order to accomplish the purpose of the study, a survey consisting of two parts was applied on 327 student chosen selected by simple random sample between 1000 students studying in the third and fourth year of above-mentioned departments in 2014-2015 academic year and statistical analysis were made by data obtained from the surveys.

While the questions about demographic characteristics of surveyed students were placed in first part of the survey, 11 questions were placed chosen among "Assessment Elements of Financial Risk Tolerance" developed by Grable and Lytton (1999) and composed of 20 elements and measuring the financial risk tolerance. Cronbach's alpha coefficient was calculated in the presence of 11 issues in the survey, if the item "You began to work in a small but fast growing company. When you completed one year and the company offered you following bonuses, which would you choose?" is removed from the scale, it was concluded that the internal consistency would increase and this item was removed before starting the analysis. After the above item was removed, Cronbach's alpha coefficient was calculated again and was found as 0.62. The study continued with 10 questions.

Grable and Lytton (1999) employed the scoring method to measure the financial risk tolerance in their study; they gave higher scores to the responses at high risk and low scores to the responses at low risk. An index score was created by summing the scores corresponding to each answer and this score was noted as the financial risk tolerance point. While high scores represented higher financial risk tolerance levels, low scores represented the lower level of financial risk tolerance.

In this study, as in the study of Grable and Lytton (1999), a financial risk tolerance score for every student was created and it was calculated separately for 327 students, it was used as the dependent variable in the statistical analysis. The financial risk tolerance score calculated for 10 questions in the study was ranged by values varying between 13 and 36. The average of the calculated financial risk tolerance score was found as 22.61; and standard deviation was found as 4.1. Students with financial risk tolerance score under 22.61 have low financial risk tolerance and those above 22.61 have high financial risk tolerance.

### **Analyses Used In the Study and the Results Obtained From the Analysis**

The analysis section of the study, as in the study of Anbar and Eker (2010), was composed of two parts; Logistic regression was firstly applied, and then Mann-Whitney U test and Kruskal-Wallis H test statistic, nonparametric tests, were applied on data in order to determine the influence of independent variables on dependent variable. In the conclusion section of the study, the results arisen by applying the nonparametric tests were compared with the results obtained from logistic regression analysis.

The dependent and independent variables used in the logistic regression model was defined as follows:

$Y$	Financial Risk Tolerance Score	$\begin{cases} 0, & Y < 22,61 \\ 1, & Y \geq 22,61 \end{cases}$
$X_1$	Age	1: 20 and under, 2: 21-25, 3: 36-30, 4: 31 and above
$X_2$	Marital status	1: Married, 2: Single, 3: Divorced
$X_3$	Gender	1: Female, 2: Male
$X_4$	Department	1: Business, 2: Economics, 3: Public Administration, 4: Finance, 5: Econometrics
$X_5$	Total Monthly Income of Family	1: lower than 1000 ₺, 2: 1001-2000, 3: 2001-3000, 4: 3001-4000, 5: 4001-5000, 6: higher than 5001 ₺

It is seen by result of logistic regression analysis that the gender variable among independent variables lead to the statistically significant influence on financial risk perception of students ( $p=0.014<0.05$ ). The odds ratio for the gender variable was found 0.548. According to this result, the possibility of having a financial risk tolerance score above 22.61 of female students which would be new registered is 0.548 times less than the possibility of having a financial risk tolerance score above 22.61 of male students. In other words, the possibility of having a financial risk tolerance score above 22.61 of male students which would be new registered is ,8248 ( $1/0,548$ ) times higher than the possibility of having a financial risk tolerance score above 22.61 of female students. The obtained results show that male students are more willing to take risks than female students.

The accurate classification rate of units in the logistic regression model was found as %61.5. 105 of the 170 students having a low risk tolerance score were classified as right, 65 as wrong, and 157 of the 61 students having a high risk tolerance score were classified as accurate, 96 as wrong. 61.8% of students having low risk tolerance in the logistic regression model and 61.1% of students having high risk tolerance in the logistic regression model were classified as accurate.

It was investigated by Mann-Whitney U test whether there is a significant difference between gender variable and financial risk tolerance scores and it seen by test results that the financial risk tolerance of male students is higher than average (183.12), the financial risk tolerance of female students is higher than average (148.58) and that the difference between averages (34.54) is also statistically significant ( $p=0.001<0.05$ ).

The obtained results reveal that male students show more risk-taking behaviour than female students.

It was investigated by Mann-Whitney U test whether there is a significant difference between age, marital status and department variables and financial risk tolerance scores and it was concluded that age ( $p=0.127>0.05$ ), marital status ( $p=0.065>0.05$ ) and department ( $p=0.106>0.05$ ) variables do not cause a significant difference in financial risk tolerance scores.

It was investigated by Kruskal Wallis H Test whether the average monthly income of the family, in other words, any increase or decrease in monthly income of the family cause any significant influence on the financial risk tolerance scores of students. Regarding to p value, it seen that the average monthly income of the families cause a significant difference on the financial risk tolerance scores of students ( $p=0.019<0.05$ ). Regarding to ordinal number averages, it is concluded that more the monthly income of family increase, the financial risk tolerance scores of students increase, in other words, the students of which family have a high monthly income are more willing to take financial risk.