

The Association Between Personality Characteristics and Investing Financial Assets



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Introduction

- A growing body of evidence quantifies the relationship between the Big Five personality traits: openness, conscientiousness, extraversion, agreeableness, and neuroticism, with investment behavior (Grieve et al., 2023).
- Looking at neuroticism and openness, neurotic individuals tend to be more anxious and risk-averse, often reacting more strongly to uncertainty in financial markets (Kelley et al., 2023; Cheng et al., 2018).
- Conversely, those high in openness are curious, imaginative, and open to new experiences, which can make them more willing to explore and invest in complex or unfamiliar financial assets (Kelley et al., 2023; Cheng et al., 2018).
- While the association between personality characteristics and investing in financial assets has been well established in the literature, less is known about how personal character interacts with socioeconomic factors like sex.

Methods

Sample

- N=19,166 participants from the Consumer Financial Protection Bureau's National Financial Well-Being Survey Use File.
- Representative of the civilian, noninstitutionalized adult population of the United States.

Measures

- Neuroticism: Assessed using FWB1_3 ("Because of my money situation, I will never have things I want in my life") and FS1_4 ("I am able to make good financial decisions that are new to me") on 5-point Likert scales.
- Openness: Measured using SWB_1 ("I am satisfied with my life"), SWB_2 ("I am optimistic about my future"), and SWB_3 ("If I work hard today, I will be more successful in the future") on 7-point Likert scales.
- Investment Outcome: PRODHAVE_6, coded as 1= Yes (holds stocks, bonds, or mutual funds) or 0= No.
- Gender: Coded as a binary variable, coded as Male=1, Female=2.

Research Questions

- -Are personality traits (openness and neuroticism) associated with investing in risky financial assets?
- •Will individuals with high openness and low neuroticism show higher investment probability than those with low openness and high neuroticism?
- Does the association between personality characteristics and investment behavior differ by sex?

Results

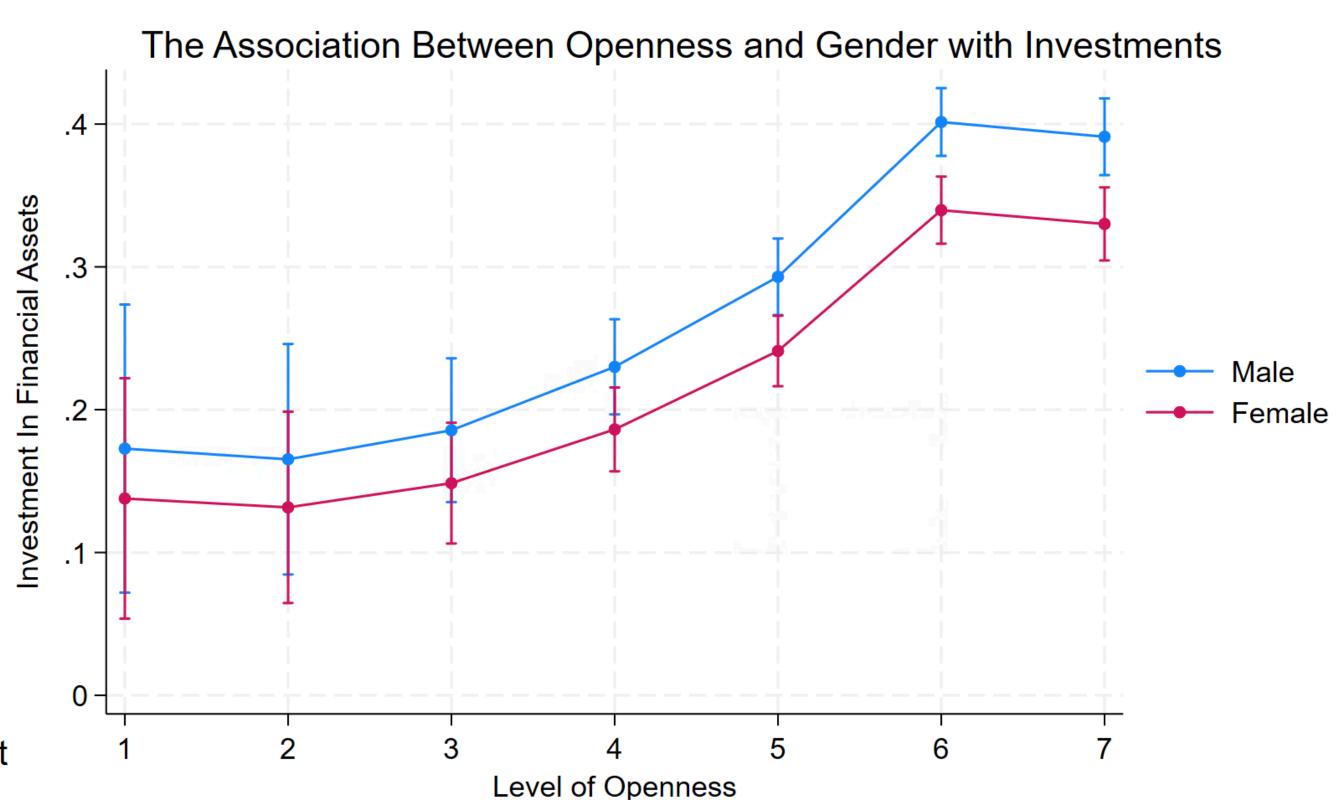
Multivariate (Neuroticism)

- People with a "Very little" (Level 2) level of neuroticism invest the most in financial assets. Investment drops off sharply for those who are "Not at all" (Level 1) or "Completely" (Level 5) neurotic.
- Males show a slightly higher level of investment than females across all levels of neuroticism
- Being female is statistically associated with about a 23.5% lower chance (O.R.=0.76) of having the investment outcome compared to the male reference group. The difference is very significant (p< 0.001).</p>
- People in the Level 2 neuroticism group are about 2.3 times more likely to have the investment outcome than those in the Level 1 group. This difference is statistically significant (p= 0.049).
- High levels of neuroticism (Level 4 and 5) do not have a statistically significant relationship with the investment outcome compared to the baseline group (Level 1).

Multivariate (Neuroticism) Cont.

- Although the overall study findings are statistically significant, the variables (neuroticism and sex) only account for a very small part of the total variation in investment.
- While the lowest level of neuroticism corresponds to a relatively low level of investment, from Levels 2-5, there downward trend likelihood of investment in assets.

Multivariate (Openness)



- The Association Between Level of Neuroticism and Sex With Investment
- Male Female

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- Investment in Financial Assets increases steadily as the Level of Openness increases from 1 ("Strongly disagree") to 7 ("Strongly agree"). This trend is visible for both males and females.
- Highly significant openness levels: Level 6 Openness is associated with 3.25 times higher odds of having an investment outcome compared to Level 1 (p= 0.002). Level 7 Openness is associated with 3.11 times higher odds compared to Level 1 (p= 0.002).
- Consistent with other findings, females still have about 23.6% lower odds of having an investment outcome compared to males. This is a highly significant difference.

Discussion

- Individuals with high openness demonstrated a higher probability of investing in financial assets, consistent with prior research linking openness to curiosity and willingness to explore financial opportunities.
- Individuals with higher neuroticism showed a lower likelihood of investment participation, aligning with research on anxiety and loss aversion discouraging risk-taking behavior.
- These personality-investment relationships remained statistically significant after controlling for socioeconomic factors, like gender.

Pak, O., & Mahmood, M. (2015). Impact of Personality On Risk Tolerance and Investment Decisions. *International Journal of Commerce and Management*, *25*(4), 370–384. https://doi.org/10.1108/ijcoma-01-2013-0002

Sachit Paliwal, Shraddha Bhadauria, & Singh, S. P. (2018). Determinants of Mutual Funds Investment Intentions: Big Five Personality Dimension. *PURUSHARTHA - a Journal of Management, Ethics and Spirituality*, 11(1), 39–49. https://journals.smsvaranasi.com/index.php/purushartha/article/view/164

How Your Personality Shapes Your Portfolio. (2023, October 1). Kellogg Insight. https://insight.kellogg.northwestern.edu/article/how-personality-shapes-investment-portfolio

González-Igual, M., Corzo Santamaría, T., & Rúa Vieites, A. (2021). Impact of education, age, and gender on investors' sentiment: A survey of practitioners. *Heliyon*, 7(3), e06495. https://doi.org/10.1016/j.heliyon.2021.e06495