

Reviews of ECONJOURNAL-D-25-00080R2

BIG FIVE PERSONALITY TRAITS, POVERTY AND ENVIRONMENTAL SHOCKS IN SHAPING FARMERS' RISK AND TIME PREFERENCES: EXPERIMENTAL EVIDENCE FROM VIETNAM

Round 1

Reviewer 1

Summary

This study investigates factors which shape risk and time preferences, including poverty, credit access, and personality traits. These preferences are derived from Eckel-Grossman tasks and the time-discounting model, respectively. Using linear regression models and experiments with farmers in the Mekong Delta, Vietnam, the author found risk preferences are positively linked to credit access, personality traits (openness and emotional stability) and natural disaster exposure. MP (multidimensional poverty) can positively affect risk tolerance in the OLS framework. For time preference, income is negatively associated with time discounting rates, however, this effect disappears when using MP. Openness prompts patience, whereas conscientiousness and credit access are linked to impatience.

Main Comments

The author addresses an important question regarding the effects of personality traits on risk and time preferences through incorporating the Big Five personality traits in the linear regression model. However, personality traits may be correlated with unobserved factors, such as educational levels and childhood experiences, which affect risk attitudes and impatience. For example, risk tolerated person is willing to accept some risky conditions (openness) and likely to maintain their emotional state (emotional stability). It would strengthen the study to provide the explanation about how to address these reverse causality problem, such as adopting instrumental variables, and to clarify why these findings can be justified as causation rather than correlation. It might be useful to explore heterogeneity by subgroup analysis (e.g., gender and education levels).

This study attempts to provide new evidence to support evidence-based policy making. Thus, it should be useful to provide recent government activities or implementation of the related policies or laws, specifically how timely your study is needed by policymakers. Additionally, it must be helpful to clarify why and to what extent the findings can be applied in a more general context to understand how your study differs from previous literature.

The author used hypothetical rewards to address the problem that the use of real rewards can lead to confounding results. If this study could overcome the problem that Tanaka et al. (2010) were unable to address, it would be effective to emphasise the difference and advantage compared to their research. Additionally, the citation from a study more recent than Du et al. (2002, p. 490), either theoretical or empirical, would highlight how this study differs from prior literature.

Minor Comments

Consider providing an explanation of the details of Mekong Delta's recent history, specifically, the background of poverty reduction over the past three decades, how many people remain poor, and what motivates you to have the key question based on the historic case. This makes it smooth and easy for readers to understand the whole picture of this study.

It would be useful to state the validity of three IVs for poverty, either by simply outlining your logic or by citing previous studies which adopt this method. If "non-living expenses" is also one of your IVs, this should be explained. Additionally, the details of natural disasters should be clearly explained, for example, what types of natural disasters (e.g., typhoons and flooding), how severe they were and how frequently they occurred.

Regarding the first paragraph in your introduction, it would be preferable to state your specific motivation to get readers hooked on your research questions.

Reviewer 2

Summary

This paper presents an experimental study involving 575 farmers in Vietnam's Mekong Delta, examining how personality traits (based on the Big Five: Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness), alongside poverty (both income-based and multidimensional), credit access, and exposure to natural disasters, influence economic decision-making, specifically risk and time preferences. The study uses incentivised and hypothetical tasks to assess preferences, with linear and instrumental variable (IV) regression models applied to identify causal relationships. The key findings are that income poverty is linked with greater patience, while access to credit is linked with greater impatience and higher willingness to take risks. Traits like Openness and Emotional Stability also play an important role. The study brings useful insights into how personal and non-financial factors influence financial decisions in poor, rural settings.

The research addresses a relevant gap in behavioural development economics by integrating non-monetary and psychological factors into an analysis of economic decision-making among vulnerable populations.

Major Comments

1)The main strength of this paper is its attempt to bring together different influences, personality, poverty, and environmental shocks, to explain how farmers make financial decisions. This is an interesting and useful approach. However, the way these elements fit together is not always clearly explained. For example, it is not clear why we should expect certain personality traits to affect time or risk preferences in a rural farming setting. A stronger explanation of these links in the rural Vietnamese setting at the start of the paper would help the reader follow the argument.

The study is generally well designed. It uses practical and appropriate tools for the local context, such as simplified lottery tasks to measure risk preferences and a basic matching task for time preferences. The use of the simplified Eckel Grossman lottery for risk preferences and a matching approach for time discounting is commendable. These methods suit the participants' level of education and experience. Including both real and imagined tasks is a nice way to balance cost and realism. However, more explanation is needed about why imagined payments were used for the time preference tasks, and how the results were checked for reliability. For instance, did the responses show logical patterns, or were there any checks to see if people were answering consistently? Readers would be helped by a clearer explanation of how validity was assessed in this context, such as evidence of internal consistency or whether manipulation checks were conducted.

3)While the paper states that participants were randomly assigned to six treatment groups. More detail is needed about how the random assignment worked within each location, and how the researchers ensured that participants followed the instructions. This would help establish the integrity of the treatment allocation process. For example, the paper on states "The 575 farmers were assigned to six different treatment groups". How was this assignment done?

4)The collaboration with local authorities likely improved participation, though it raises potential concerns around selection bias. Farmers were introduced by community leaders, which may mean that the sample included more cooperative or better-connected households. While the paper says that community leaders left after the introductions and there was no attrition in the sample, it would be helpful to explain how voluntary participation was protected, especially in a setting where people may feel pressure to take part.

5)The measures of risk and time preferences are well described, with useful steps taken to vary the stakes and the delays. This makes it more likely that the results reflect real patterns in behaviour. Still, the technical description of the time preference model could be written more clearly. The current version may be hard for some readers to follow. Also, the paper treats borrowing status as a variable that may be affected by other things but assumes that personality traits are fixed. This is worth explaining, since personality might also be linked with hidden factors that affect decision-making.

6)The use of instrumental variable (IV) methods to address endogeneity, particularly in credit access and poverty status, is a strength of the paper. Instruments such as distance to banks or industrial zones, arable land, and salinity levels are generally reasonable. However, two concerns remain. First, instrument strength for multidimensional poverty (MP) appears weak, as noted in the manuscript, and this will affect how much we can trust the related results. Second, the exclusion restriction for some instruments is questionable. For instance, proximity to financial institutions might influence preferences directly by affecting market exposure, not merely through poverty or credit access. A stronger justification for the assumed exclusion restriction is necessary.

7)One recurring pattern in the results is that multidimensional poverty (MP) is not significantly associated with either risk or time preferences, while income poverty does. The paper notes this but gives only a brief explanation. The paper should explore whether MP fails to capture decision-relevant constraints in this context, whether the concept is misaligned with local realities, or whether measurement or instrument issues are at play. Given the centrality of MP in the paper's title and framing, this issue requires fuller discussion and possibly stronger justification for retaining MP in the analysis.

8)Another notable and somewhat counterintuitive finding is that credit access is linked to greater impatience. While the author suggests plausible mechanisms such as liquidity effects or consumption pressures, these remain speculative without supporting data. Disaggregating credit by type, for example formal versus informal or productive versus consumption loans, might help explain the result more clearly. The link between borrowing and risk tolerance also requires more detailed interpretation. Is this because people who take risks are more likely to borrow, or because borrowing changes their behaviour? Addressing this could enhance both the empirical and policy relevance of the findings.

9)The presentation of regression results is, overall, well organised in tables, but the accompanying text is at times dense and repetitive. The narrative would benefit from clearer interpretation of coefficients, both direction and

magnitude, and a more purposeful explanation of what the results imply. Instead of general statements, specific coefficients should be referenced and interpreted, as in: “Borrowing status is positively and significantly associated with risk tolerance in the OLS models, suggesting that farmers with credit access are less risk-averse,” or “Farmers who experienced recent natural disasters exhibit significantly higher risk tolerance across all models.” This approach would allow the reader to engage more directly with the implications of the findings.

10)The policy suggestions are a good start, but they remain general. The paper suggests improving credit access and offering financial training but does not say what kinds of credit or training would work best for different groups. For instance, what financial tools might support impatient farmers? Could behavioural nudges or product designs tailored to specific traits be developed? How might disaster-prone communities be targeted differently? These refinements would enhance the practical value of the paper.

11)Although the study focuses on Big Five personality traits, these are not mentioned until later in the manuscript. A short mention in the introduction, along with their relevance, would help set the stage.

Minor Comments

1)In all results tables, “MP” should be spelled out as multidimensional poverty (MP) for clarity.

2)There is inconsistency in the use of currency. While tasks used Vietnamese dong (VND), the discussion often shifts to US dollars. The manuscript should either stick to VND throughout or consistently provide both VND and USD equivalents.

3)A visual diagram illustrating the relationships between personality traits, poverty, shocks, and economic behaviour would help clarify the conceptual framework.

4)In the regression tables, the purpose of listing the instrumental variables is unclear. It would be more informative to indicate instrument use with a simple Yes or No rather than listing them fully, which may confuse readers. It could also be removed altogether.

5)The models results in the table should be such as “OLS” or “IV” instead of or in addition to the numbering (1), (2) etc.

6)The sentence in the procedures section that says “we aimed to allocate...” sounds like the study is still being planned. It would be clearer to state what was implemented. E.g “We allocated approximately 25% of participants to each treatment.”

7)Some of the writing is too dense or technical. Shorter sentences and simpler language would make the paper easier to read. For example, instead of “quasi-hyperbolic discounting,” could have further explanation like, “people tend to value short-term rewards more than long-term ones, especially for small amounts.”

8)Although ethical approval and informed consent are addressed, the manuscript could briefly mention data confidentiality measures and participant compensation for transparency.

9)Figure 1 would benefit from a more descriptive caption than the detailed explanation of what it shows and what the reader should notice.

10)The literature review would benefit from updates to include more recent studies and a sharper focus on studies most relevant to this paper’s contribution.

11)Ethical procedures are described clearly. The inclusion of a declaration regarding AI tools is transparent and appreciated.

Round 2

Reviewer 1

Comments

- I thank the author for the constructive response. The revision addressed my primary concerns and questions. In particular, the author paid attention to the potential multicellularity and reverse causality problems, through writing about how reliable the Big Five framework is to describe the adult personality hierarchy and citing several previous studies in the manuscript, and also clearly explained the author’s position, highlighting robust association rather than causal relationship, making the manuscript easy to understand and follow, even for people from different fields. Additionally, the author conducts a preliminary check, indicating that there is almost no difference by gender, which is a nice attempt to address heterogeneity under the restricted setting.
- I want to add one thing. It would be more informative to share the results of the average traits by academic level as well, and to present the descriptive statistics in the main rather than in the supplement. Regarding other points, the author responded carefully to enhance the clarity and quality of the empirical research.