

Blockchain Use and Psychological Vulnerability: Age and Gender as Mediators in a Romanian Adult Sample

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Abstract

As blockchain technologies increasingly permeate daily life, their psychological implications remain underexplored, especially in non-Western populations. This study investigates the psychological impact of blockchain use within a Romanian adult sample (N = 217, collected December 2024 – February 2025), focusing on stress, anxiety, and self-esteem, with mediation analyses testing the roles of age and gender. Data analysis was conducted using Jamovi, employing mediation models to assess indirect effects. We found that the relationship between blockchain engagement and perceived stress was significantly mediated by age ($\beta = 0.0359$, $p = 0.046$), with younger users exhibiting higher levels of stress. Similarly, age mediated the association between blockchain use and self-esteem ($\beta = -0.0662$, $p = 0.012$), as younger individuals reported lower self-esteem. In addition, gender significantly mediated the relationship between blockchain use and anxiety ($\beta = -0.0349$, $p = 0.050$). These results underscore the nuanced psychological consequences of engaging with emerging technologies and highlight the importance of considering demographic variables such as age and gender when evaluating their mental health implications. Further research with more behaviorally balanced and representative samples is warranted to confirm and expand upon these findings.

Keywords: anxiety; stress; self-esteem; digital technologies; mediation analysis