

# Digital Money and Psychological Detachment: A Controlled Experimental Study of Cognitive Bias Amplification in Everyday Financial Decisions

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## ABSTRACT

The rapid adoption of digital payment systems has fundamentally transformed everyday financial transactions, potentially altering individuals' psychological relationship with money. Unlike physical cash, digital money reduces transaction visibility and tangibility, which may induce psychological detachment and amplify cognitive biases in financial decision-making. This study presents a controlled experimental investigation examining how digital payment environments influence behavioral biases such as loss aversion, mental accounting, anchoring, and temporal discounting in routine spending decisions. A randomized experimental design is employed in which participants are assigned to simulated consumption and budgeting tasks under two conditions: tangible cash-based transactions and frictionless digital payment scenarios. Behavioral responses, expenditure patterns, risk preferences, and decision latency are systematically recorded. Psychological detachment is measured using validated behavioral scales and mediation analysis to identify its role in bias amplification. Statistical techniques, including ANOVA, regression modeling, and structural equation modeling, are applied to assess causal relationships between payment mode and cognitive bias intensity. The study aims to provide empirical evidence on whether digital money attenuates the "pain of paying" and thereby increases impulsive or bias-driven financial behavior. By integrating experimental behavioral finance with contemporary digital payment ecosystems, this research contributes to understanding the psychological mechanisms underlying modern financial decision-making. The findings offer implications for financial literacy initiatives, digital interface design, and regulatory frameworks aimed at promoting responsible consumer spending in increasingly cashless economies.

**Keywords:** Digital Money; Psychological Detachment; Cognitive Biases; Behavioral Finance; Experimental Finance; Pain of Paying; Loss Aversion

