Impact of AI-Driven Trading Platforms on Financial Addiction and Decision-Making Behavior Among Young Investors

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Abstract

The fast development of artificial intelligence (AI) in the financial market has changed how people address the investment activities. The technologies of artificial intelligence include trading applications based on algorithm and robo-advisors that serve as real-time insights, predictive analytics as well as automated indecision making support. Such inventions have contributed greatly to the accessibility to financial markets, especially to young investors of between 18-35 years. Nevertheless, the rising dependence on these platforms has brought an issue forced on the emergence of financial addiction and the possible influence of former on decision-making behavior.

The research questions in this study are: How AI-based trading platforms relate to the problem of financial addiction and the quality of decisions made? Quantitative research design was used and primary data were gathered using structured questionnaires to 100 young investors. The hypotheses were tested using statistical methods of correlation and regression analysis.

The results indicate that increased usage of AI-produced platforms contributes greatly to the development of addiction to finances. Moreover, addiction to finances also has a negative impact on the quality of the decisions made, disassociated trading and diminished rationality. The article emphasizes the two-fold effect that AI is having on the financial sector, both positively through efficiency gains and negatively via behavioral risks. The study offers viable suggestions to investors, platform developers, and policymakers, to reduce the negative impacts of AI-based trading environments.

Section 1 – Introduction

1.1 The study has a background section.

The inclusion of artificial intelligence has brought a dramatic change in the financial industry. With AI-driven trading systems, investors have been able to enter financial markets with the minimal effort, with capabilities like automated portfolio management, algorithmic recommendations, and predictive analytics. Young investors are the most technologically inclined and are open to digital solutions, especially in these platforms.

User resonance has been enhanced by the simplicity of navigation, the gamified interfaces, and instant feedback. But due to such a high degree of interaction, there is a likelihood of becoming excessively active in trading thus becoming addicted to money.

1.2 Problem Statement

Regardless of the advantages of AI-driven trading platforms, there is an increasing worry that the platforms can promote compulsive trading behavior. The young investors are more exposed to online platforms and their experience with investing is low, which makes them more susceptible to financial addiction. Also, overdependence on AI decision-making can undermine independent decision-making.

1.3 Study Objectives.

- objective To examine how AI-based trading platforms affect financial addiction.
- To test the association between financial addiction and decision-making behavior.
- Question: To determine the methods in which AI application is affecting investment choices of young investors.

1.4 Research Questions

- Are AI-controlled trading platforms or platforms that lead to financial addiction on your mind?
- What is the impact of financial addiction in an investment decision making process?
- What happens to investor rationality with the reliance of AI?

1.5 Importance of the Research.

The paper has informative value to both the behavioral finance and fintech circles by recognizing the psychological effect of AI-based trading. This is good news to investors, policymakers, and those in the field of financial technologies.

Section 2 - Literature Review

2.1 AI in Financial Markets.

The artificial intelligence has transformed the trading process, as it allows making decisions based on data. With AI systems, the amount of financial data that normally needs to be analyzed manually can be examined and the prediction is correct, resulting in less human involvement.

2.2 Decision making and Behavioral Finance.

Behavioral finance is a science that describes the role of psychological biases in the process of financial decision making. Such irrational behaviors are overconfidence, herd mentality, and loss aversion which are common in investors.

2.3 Financial Addiction

Financial addiction is a compulsive trading that is over engaged, emotionally dependent, and cannot control their trading activities. It is similar to gambling addiction.

2.4 The AI and its influence on Behavior.

AI systems can underpin addictive behavior by:

- Providing constant notifications
- Offering instant rewards
- Reducing perceived risk

2.5 Theoretical Framework

- Behavioral Finance Theory
- Bounded Rationality
- Addiction Theory

2.6 Research Gap

There has been little research on the interaction between the use of AI and financial addiction and decision-making behavior.

2.7 Hypotheses

H1: The use of AI has a positive effect on financial addiction.

H2 Financial addiction is detrimental to decision making.

H3: There is mediation between decision-making and AI use by financial addiction.

Section 3 - Research Methodology

3.1 Research Design

This paper is a quantitative research design, which applies a cross-sectional survey design.

3.2 Data Collection

The primary data were acquired through the administration of structured questionnaires to the young investors.

3.3 Size and method of sampling.

- Sample Size: 100 respondents
- Sampling Method: Convenience sampling.

3.4 Variables

- The independent variable is: AI-driven platform usage.
- Variable to mediate: Financial addiction.
- Dependent Variable: Decision-making behavior.

3.5 Data Analysis Tools

- Descriptive statistics
- Correlation analysis
- Regression analysis

3.6 Ethical Considerations

- Informed consent obtained
- Confidentiality maintained

Section 4 - Analysis and Interpretation of Data.

4.1 Demographic Profile

The vast majority of the respondents were between 18 25 years old and actively participated in trading platforms.

4.2 AI Usage Patterns

- Frequently used apps.

Dependence on AI recommendations: At least two groups of symptoms.

4.3 Financial Addiction Analysis

- Moderate to high addiction levels were seen.

emotional involvement in trading.

4.4 Decision-Making Behavior

- Increased impulsive decisions
- Reduced analytical thinking

4.5 Hypothesis Testing

- H1 supported
- H2 supported
- H3 partially supported

4.6 Interpretation

The findings reflect that AI-enhanced platforms have a huge impact on the behavior of people with the manifestation of higher addictions and poorer decision quality.

4.7 Limitations of Analysis

- Data reliability concerns
- Behavioral bias

Section 5 - Results, Discussion and Recommendations.

5.1 Key Findings

- The use of AI enhances the experience and addiction.
- Addiction is an adverse effect on decision-making.
- AI has an indirect influence on the quality of decisions.

5.2 Conclusion

AI-based trading platforms have revolutionized the process of investing, but have also posed behavioral risks. Although they enhance efficiency they can also promote compulsive behavior among the young investors since they encourage this.

5.3 Recommendations

For Investors:

- Learn to be disciplined in trading.
- Limit screen time

For Platforms:

- Reduce gamification
- Introduce warning systems

For Regulators:

- Monitor platform design
- Promote financial literacy

5.4 Future Research

- Longitudinal studies
- Cross-country analysis

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