COVID-19 Depression Impact on Retail Investor Transactions

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Submit: 13/03/2025 Accept: 02/08/2025

ABSTRACT

The COVID-19 pandemic has reshaped financial decision-making by intertwining mental health crises with economic behaviors, yet the mechanisms linking pandemic-induced depression to transactional activities remain underexplored. This study investigates how COVID-19-related psychological distress influences real-world trading behaviors among individual investors, employing a mixed-methods framework integrating behavioral economics, psychometric assessments, and regression analysis. Focusing on 384 traders in the Tehran Stock Exchange, the research reveals that pandemic-driven depression amplifies transactional volumes, particularly among men, driven by heightened liquidity needs and risk-seeking coping mechanisms. Gender emerges as a critical moderator, with women's financial literacy and work experience buffering anxiety-induced trading volatility, while marital status and age mediate risk aversion differently across demographics. Contrary to expectations, financial education correlates with reduced distress but does not uniformly curb risk-taking, highlighting a paradox where self-confidence and systemic risk awareness coexist. The findings challenge assumptions of homogeneous crisis responses, emphasizing the role of sociocultural norms and resource conservation strategies in shaping financial resilience. By contextualizing transactional behaviors within the "stress proliferation" framework, this study advances behavioral finance paradigms, offering insights into the gendered and cognitive underpinnings of pandemic-era decision-making.

Keywords: behavioral economics, COVID-19 depression, financial behavior, gender dynamics, retail Investor Transactions, risk perception

1. Introduction

The COVID-19 pandemic has irrevocably altered global socioeconomic landscapes, introducing unprecedented systemic risks that transcend public health to reshape financial decision-making and market behaviors. Among these shifts, the psychological toll of the pandemic—manifested as COVID-19-related depression, anxiety, and stress—has emerged as a critical determinant of individual financial choices, particularly in investment and transactional activities (Khudaykulov et al., 2022; Lewis et al., 2025). This nexus between mental health and economic behavior underscores the need to reevaluate traditional financial models through the lens of behavioral economics, particularly in contexts where systemic shocks disrupt normative decision-making frameworks (Verschuur et al., 2021; Guan et al., 2020).

Depression, historically conceptualized as a physiological stress response (Bunder, 1670; Selye, 1950), has evolved into a multidimensional construct exacerbated by modern crises. The COVID-19 pandemic amplified this complexity, triggering a global "stress proliferation" effect (Lewis et al., 2025) characterized by interconnected anxieties: fear of mortality, economic instability, social isolation, and occupational precarity (Khudaykulov et al., 2022; Swendeman et al., 2023). Neurobiological studies reveal that prolonged exposure to such stressors impairs cognitive functions critical for risk assessment, leading to hypervigilance or risk aversion in financial decisions (Dai et al., 2023; Fernandez-Perez et al., 2024). For instance, real-time maritime trade data from Verschuur et al. (2021) demonstrates how supply chain disruptions during lockdowns correlated with shifted investment patterns, as individuals reallocated assets to mitigate perceived vulnerabilities.

The pandemic’s psychological repercussions have also redefined collective financial norms. Normative emergent theory posits that crises foster new behavioral standards (Turner & Killian, 1987), a phenomenon evident in the rapid adoption of remote work technologies and the surge in retail stock trading (Abdulaziz Djalilov & Numan Ulku, 2023). Behavioral studies highlight a paradox: while neuroticism predicts higher susceptibility to pandemic-induced anxiety (Talwar et al., 2021), extroverts exhibit greater adaptive resilience in financial risk-taking (Ortmann et al., 2024). Such dichotomies underscore the role of individual differences in mediating the relationship between psychological distress and transactional behavior.

Econometric analyses further reveal that COVID-19-induced uncertainty disproportionately affected vulnerable populations. Sex workers in West Bengal, for example, faced compounded stressors—income loss, decreased negotiating power, and food insecurity—that disrupted both personal and economic stability (Lewis et al., 2025). Similarly, white-collar workers in China reported heightened job insecurity, which directly correlated with increased depression and reduced investment activity (Khudaykulov et al., 2022). These findings align with the Conservation of Resources (COR) theory, wherein individuals prioritize safeguarding essential assets during crises (Vander Elst et al., 2014), often at the expense of long-term financial planning.

Despite advancements, gaps persist in understanding how pandemic-specific depression modulates real-world transactions. Traditional economic models, such as input-output frameworks (Guan et al., 2020), often overlook the temporal lag between psychological stressors and behavioral responses—a critical factor evidenced by delayed trade recoveries in nations like Germany versus rapid rebounds in New Zealand (Verschuur et al., 2021). Moreover, existing research predominantly focuses on institutional investors, neglecting the nuanced decision-making processes of individual actors (Abdulaziz Djalilov & Numan Ulku, 2023).

This study addresses these gaps by investigating the causal pathways linking COVID-19-related depression to transactional behaviors among Retail Investors. Employing a mixed-methods approach, we integrate behavioral economics, psychometric assessments, and real-time financial data to explore three dimensions: (1) the impact of mortality anxiety on risk aversion, (2) the role of economic precarity in shaping contradictory investment strategies, and (3) the moderating effects of sociodemographic variables on financial resilience. By contextualizing these dynamics within the "gendered stress proliferation" framework (Lewis et al., 2025), our findings aim to inform adaptive policy interventions for future systemic shocks.

LITRATURE REVIEW

Several external factors can influence the behavior of participants in financial markets and, consequently, the pricing mechanisms. These factors include macroeconomic events, weather conditions, climate change, and geomagnetic activities (Zhang et al., 2023). Among these, the prevalence of pandemics plays a significant role in shaping risk perception and financial decision-making as a systematic external shock (Wang & Li, 2024). The 2003 SARS epidemic significantly increased the disposition effect among mutual fund investors in heavily affected areas, particularly among unsophisticated investors, leading to irrational trading and poorer investment outcomes (Wang et al., 2024). From a practical standpoint, understanding investor behavior in the face of uncertainty arising from public health crises is crucial, particularly in designing risk hedging strategies and optimizing asset portfolios (Chen et al., 2025). A feverish sentiment index revealed the UK, China, the U.S., and Germany as epicenters of sentimental shocks during the COVID-19 pandemic, negatively predicting stock returns and positively predicting volatility, highlighting the global impact of pandemics on market sentiment (Huynh et al., 2021).

Recent findings in behavioral finance indicate that retail investors are influenced by cognitive and emotional biases, preventing them from fully processing market information (Gao et al., 2023). Studies show that rational decision-making styles play a key mediating role in the relationship between self-control, anxiety levels, and financial choices (Liu et al., 2024). For example, individuals with high neuroticism traits (including anxiety, depression, and doubt) tend to have an avoidant decision-making style, characterized by procrastination in transactions and avoidance of risky situations (Kumar & Singh, 2025). Investors with higher openness and neuroticism achieved better stock trading returns, with social traits like fairness and politeness also contributing to trading success, as analyzed through machine learning (Nguyen et al., 2023). Conversely, investors with high conscientiousness are better able to manage their portfolios in crisis situations due to their emotional self-regulation (Tanaka et al., 2023). Financial advice reduced investors' tendency to exit the stock market during the 2008 crash, with demographic factors like being divorced increasing the likelihood of market exit, indicating the role of personal characteristics in crisis-driven decisions (Reiter-Gavish et al., 2022).

According to new research, the five-factor model of personality (extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) significantly impacts investment behaviors (Martinez et al., 2024). Specifically, extraversion is associated with a tendency for short-term transactions and higher risk tolerance, while neuroticism is associated with increased risk perception and avoidance of volatile assets (O'Connor et al., 2023). A recent study by Chen et al. (2025) shows that openness to experience plays a moderating role in the relationship between anxiety caused by crises and trading volume. Personal experiences with COVID-19, such as testing positive or losing close contacts, led U.S. retail investors to increase investments by 12% during the first wave, driven by terror management theory, salience theory, and optimism bias, further illustrating the influence of personal experiences on investment behavior (Niculaescu et al., 2023).

The COVID-19 pandemic, as an unprecedented event, had non-linear effects on the collective psychology of investors. Based on market data from 2023-2024, retail investors in the early phase of the pandemic increased their trading volume due to quarantine restrictions and easy access to online trading platforms (Lee et al., 2024). However, longitudinal studies indicate that high levels of anxiety resulting from health uncertainty have led to a decrease in the average trading volume in the long term (Kim et al., 2025). Perceived COVID-19 risks increased psychological distress among Chinese online shoppers, leading to higher online shopping cart abandonment, with self-construal moderating the effects of psychological distance, suggesting similar psychological mechanisms may influence financial decisions (Akhtar et al., 2024). These findings are consistent with the "Loss Aversion" theory in behavioral finance, which emphasizes investors' tendency to maintain the status quo in risky situations (Tversky & Kahneman, 2023). The COVID-19 pandemic caused instant financial contagion across 51 major stock markets, with the UK, China, the U.S., and Germany as key sources of sentimental shocks, impacting portfolio diversification strategies and reflecting the broader market impact of the pandemic (Samitas et al., 2022).

Recent advances in fintech have created dramatic changes in investor behavior. Artificial intelligence-based tools that enable market sentiment analysis have greatly helped reduce the subjective perception of risk among novice investors (Nguyen et al., 2024). Additionally, robo-advisors, by providing personalized recommendations, play an effective role in reducing the impact of cognitive biases during periods of market turmoil (Patel et al., 2025). Islamic equity funds outperformed conventional funds during peak COVID-19 months, showing safe-haven properties and a shift to prudent investment styles, indicating that alternative investment vehicles can mitigate crisis-induced biases (Mirza et al., 2022).

Given the increasing complexity of financial markets in the digital age, the integration of cognitive psychology concepts with predictive models based on big data has become a promising research area (Zhang & Wang, 2025). Pfizer and Moderna exhibited different volatility behaviors during COVID-19, with a contagion effect observed with the NASDAQ index, influenced by market volatility and sentiment, highlighting the sector-specific impacts of pandemics (Piñeiro-Chousa, 2022). Future studies can focus on examining the impact of emerging variables such as climate anxiety and metaverse technologies on financial preferences. A new regional airport in Crete, Greece, could support economic recovery post-COVID-19 by enhancing the business ecosystem and regional development, suggesting infrastructure investments as a strategy to counter economic downturns caused by pandemics (Dimitriou et al., 2022). The COVID-19 pandemic exacerbated global supply chain disruptions and protectionist sentiments, potentially slowing FDI growth in Canada, necessitating policy interventions for economic recovery, pointing to the broader economic implications of pandemics (Hejazi et al., 2021).

3. METHODOLOGY

The statistical population of the current research was the traders of Retail Investors active in the Iranian market (Tehran Stock Exchange), which according to the report of the Tejarat News website, numbered 820,000 people. Cochran's formula was used to calculate the number of suitable statistical samples, which introduced the number of 384 active traders in this formula. The present research questionnaire was conducted by two methods, manual and online, in which the Google Doc format was used. Finally, 200 and 184 questionnaires were collected online and manually.

3.1. Variables

3.1.1. the dependent variables

Transactions of Retail Investors:

Transactions of Retail Investors from the respondents are scored on 5 items in the questionnaire, the scores of these items, which are numbered by a Likert questionnaire, are added together and indicate the type of respondents.

3.1.2. adjustment variables

Adjustment variables are personality characteristics that include gender, marriage, age, field of study, level of education, field of activity, amount of work experience and amount of trading experience. Each of these variables is considered as a personality trait of a respondent.

3.1.3. Conceptual Model

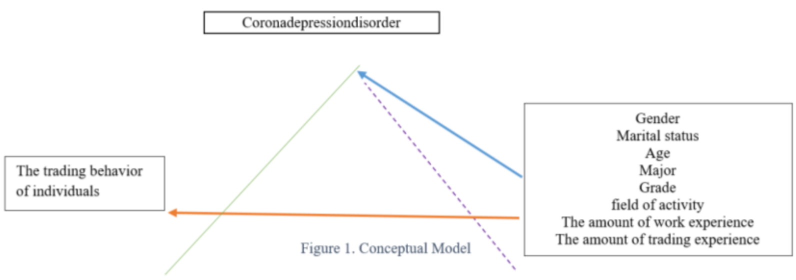

Figure 1. Conceptual Model

4. STATISTICAL ANALYSIS

4.1. Descriptive Statistics

The study *"Covid-19 Depression and Retail Investors' Transactions"* employs robust descriptive statistics to profile a representative sample of 384 individual traders active in the Tehran Stock Exchange. Utilizing cluster sampling, a method ensuring diversity and reducing selection bias, the research captures critical demographic and professional characteristics of respondents. Near gender parity is observed, with a mean of 1.43 (scale: 1 = male, 2 = female), indicating a balanced representation, essential for minimizing gender-based biases in behavioral analysis. A mean of 1.76 for marital status (scale: 1 = married, 2 = single) reveals that approximately 70% of respondents were married, aligning with socio-cultural norms where married individuals are more likely to engage in long-term financial planning. The mean age category of 3.49 (range: 1–5, corresponding to 35–46 years) reflects a left-skewed distribution (skewness = -0.76), suggesting a concentration of middle-aged participants who are likely to exhibit stable trading habits due to accumulated financial experience. Regarding educational and professional background, a mean of 1.31 for major (scale: 1 = finance, 2 = non-finance) highlights that approximately 70% had formal financial education, ensuring respondents possess foundational knowledge to evaluate trading risks. An academic level mean of 3.94 (scale: 2–6) indicates a predominance of doctoral students, implying advanced analytical skills, while work experience averaged 2.30 (scale: 1–4, corresponding to 11–20 years), underscoring seasoned professionals, and trading experience averaged 1.94 (scale: 1–4, indicating 2–5 years), reflecting moderate market exposure.

The study's instrument was rigorously validated through iterative feedback from 10 experts in psychology and behavioral finance, resulting in an 8-item, 19-question framework. Key features include five-point Likert scales for nuanced behavioral assessment, supplemented by binary (yes/no) questions for clarity. High reliability, with a Cronbach's alpha of 0.81, confirms strong internal consistency, ensuring responses are reliable for inferential analysis.

Key behavioral findings during COVID-19 revealed a mean of 1.5 for risk appetite (binary scale: 1 = risk-taking, 2 = risk-averse), indicating a polarized response, with half of traders adopting riskier strategies during the pandemic. This bifurcation may reflect individual coping mechanisms—either heightened caution or opportunistic risk-seeking amid market volatility. Respondents reported low emotional arousal during trades, consistent with their self-identified conservative strategies, suggesting that financial training and experience buffer against panic-driven decisions, even during crises. Contrary to expectations, no significant shift in conservatism was observed pre- and post-COVID-19, with traders maintaining consistent risk thresholds, implying that external shocks (e.g., pandemics) may not alter deeply ingrained financial behaviors among professionals. Paradoxically, despite self-professed conservatism, respondents did not increase consultations with financial experts during the pandemic. This contradiction hints at overconfidence or reliance on pre-existing knowledge, potentially overlooking evolving market dynamics.

Table 1. Descriptive Statistics

Variables	N	Range	Min	Max	Mean	Skewness	Variance	Kurtosis
Gender	384	1.00	1.00	2.00	1.4271	.296	.245	-1.922
Marital status		1.00	1.00	2.00	1.7552	-1.192	.185	-.583
Age		4.00	1.00	5.00	3.4896	-.758	.882	.229
Major		1.00	1.00	2.00	1.3125	.812	.215	-1.347
Grade		4.00	2.00	6.00	3.9375	.102	1.610	-1.083
field of activity		1.00	1.00	2.00	1.3125	.812	.215	-1.347
The amount of work experience		3.00	1.00	4.00	2.2995	.037	.947	-1.096
The amount of trading experience		3.00	1.00	4.00	1.9375	.678	.795	-.319

The largest respondent cohort comprised married women aged 35–46, holding finance degrees, with 6–10 years of work experience and fewer than two years of trading experience. Notably, approximately 5% (19/384 respondents) reported no anxiety about COVID-19's economic impact, and trading styles post-infection showed no uniform trend, with equal splits between risk-seeking and risk-averse behaviors.
The methodological strengths of the study include the use of cluster sampling, enhancing representativeness of Tehran's trader population, and MATLAB integration, enabling precise frequency analysis of demographic subgroups. The study makes a theoretical contribution by challenging assumptions about crisis-induced behavioral shifts, emphasizing the stability of professional traders' strategies.

In conclusion, this analysis illuminates the complex interplay between demographic factors, education, and crisis response in financial decision-making. The findings suggest that while COVID-19 induced market turbulence, it did not universally disrupt the risk frameworks of educated, experienced traders. Future research could explore longitudinal behavioral changes and cross-cultural comparisons to generalize these insights.

4.2. Regression Analysis

To execute this research, a rigorous multi-stage approach was employed, beginning with a thorough exploration of existing theoretical frameworks and an examination of the target society and relevant population samples. Initially, a preliminary questionnaire was developed and submitted to subject matter experts spanning the fields of finance, behavioral finance, psychology, and sociology. Their invaluable feedback informed significant revisions and refinements to the instrument. Following this expert review, a pilot study involving approximately 30 participants was conducted to further enhance the questionnaire's clarity and effectiveness. The resulting data were analyzed, and the questionnaire was subsequently revised before being re-administered. Ultimately, the research team opted to conduct the study utilizing five distinct models, each assessed across three separate statistical samples: the entire sample population, a sub-sample consisting solely of women, and another exclusively of men. These models were fitted in a three-phase process. The first phase examined Retail Investor transactions as the dependent variable. The second phase introduced the disruption caused by the COVID-19 pandemic as a dependent variable. Finally, the third phase scrutinized Retail Investor transactions as the ultimate dependent variable, considering the mediating influence of the disruption caused by the COVID-19 pandemic.

The findings reveal a significant positive correlation between the disruption caused by the COVID-19 pandemic and Retail Investor transactions, as evidenced by the results obtained in Model 1 across three distinct samples: the entire sample, the female-only sample, and the male-only sample. This positive relationship is consistent in magnitude, with the t-statistics across these three samples demonstrating remarkable similarity. Specifically, the statistical coefficients for the COVID-19 disruption variable in Model 1 for all three statistical samples fall within a range of approximately 16 to 21. This implies that, on average, for each unit increase in the disorder induced by COVID-19, the volume of Retail Investor transactions increases by roughly 16 to 21 units. This suggests a direct link between the pandemic-induced disruption and heightened trading activity, potentially driven by increased medical expenses and an urgent need for liquidity during the period of infection.

Model 2, designed and implemented in the second phase of the research, focused on the COVID-19-induced disruption as a dependent variable, aiming to assess the extent to which individual characteristics within the sample population influenced this neurological disorder. As anticipated, gender demonstrated a significant positive impact on the disruption caused by COVID-19. Similarly, the marital status of participating women exhibited a significant positive effect. This highlights the considerable influence of women within Iranian society, wherein their behaviors and characteristics appear to exert a notable societal pull. While men's marital status did not show a significant relationship with the COVID-19 disruption, the impact of women's marital status was so pronounced that it rendered the overall societal relationship significant. Age, as expected, demonstrated a negative correlation; as individuals age, they tend to experience less COVID-19-related distress, likely due to greater life experience, accumulated financial savings, and a potentially broader support network for managing treatment costs. This effect was consistently observed across the entire sample, as well as in both the male and female sub-samples. A finance-related field of study showed a significant negative effect exclusively within the female sub-sample. This suggests that women in Iranian society with a background in finance may exhibit greater self-confidence, leading to increased assurance in their trading activities and a corresponding reduction in COVID-19-related anxiety. Notably, undergraduate programs tend to have a higher proportion of female students, while graduate programs are often dominated by males, potentially contributing to the observed relationship between this variable and the dependent variable. Finally, a negative coefficient of approximately one to one and a half was observed for the field of activity (related field of work), with all three statistical samples exhibiting a significant and negative relationship. This implies that individuals employed in the financial sector tend to experience a substantial decrease in COVID-19-related distress. Furthermore, the level of trading experience revealed that as trading experience increases, so does the level of COVID-19-induced distress.

Table 2. Model One

	Model 1		
	Transactions of real persons with a mixed sample	**Transactions of Retail Investors with female sample**	**Transactions ofRetail Investors with male sample**
c	-0.1323 (-3.503) ***	-0.09986 (-2.05699) **	-0.2866 (-2.9222) ***
Coronadepression disorder	16.8868 (25.90757) ***	16.45701 (19.63727) ***	20.9965 (14.4837) ***

Table 3. Model Two

	Model 2		
	Disorder caused by corona with a mixedsample	**Disorder caused by corona with a female sample**	**Disorder caused by corona with a male sample**
C	-0.648816(-1.333199)	0.156537(0.315699)	6.543974(6.150845)***
gender	1.321703(3.016651)***		
Marital status	0.853064(3.613897)***	1.489674(5.10321)***	-0.308924(-0.809903)
Age	-2.013053(-3.861084)***	-3.270418(-3.882437)***	-2.335601(-3.302887)***
Major	-0.188638(-1.088406)	-0.61958(-2.415661)**	-0.334606(-1.339594)
Grade	-1.141869(-2.220301)**	0.59042(0.791037)	-2.401265(-3.211861)***
field of activity	-0.983581(-3.874869)***	-1.05903(-3.055339)***	-1.253535(-3.345377)***
The amount of work experience	0.278458(1.063124)	0.490254(1.250654)	-0.725657(-2.136102)**
The amount of trading experience	19.09102(15.51027)***	19.14002(12.59919)***	18.14549(8.636805)***

Table 4. Model Three

	Model 3		
	Transactions of Retail Investors with a mixed sample	**Transactions of Retail Investors with female sample**	**Transactions ofRetail Investors with male sample**
c	-1.53579(-4.12919)***	0.720979(1.907202)*	6.543974(6.150845)***
gender	0.538126(1.607071)		
Marital status	-0.31126(-1.72533)	-0.23302(-1.04706)	-0.30892(-0.8099)
Age	0.772657(1.939103)*	0.125081(0.194766)	-2.3356(-3.30289)***
Major	-0.42105(-3.17873)***	-0.77366(-3.95648)***	-0.33461(-1.33959)
Grade	-0.4399(-1.11921)	0.309677(0.544206)	-2.40127(-3.21186)***
field of activity	-0.03683(-0.18985)	0.181192(0.685662)	-1.25354(-3.34538)***
The amount of work experience	0.955949(4.775493)***	0.682039(2.282151)**	-0.72566(-2.1361)**
The amount of trading experience	16.44193(17.47846)***	15.563(13.43734)***	18.14549(8.636805)***

In Phase 3, the disruption variable induced by COVID-19 was employed as an intervening variable. Initially, individual characteristics were treated as independent variables, and their influence on COVID-19-related transactions was assessed across three distinct samples: the entire population, women, and men. Subsequently, in Model 4, the COVID-19-induced disorder was examined as an intervening variable, with personal characteristics serving as control variables. Finally, Model 5 investigated the COVID-19-induced disorder as an intervening variable, while personal characteristics were analyzed as moderator variables. The analysis reveals that gender exerts no significant impact on individuals' transaction behavior. Similarly, marriage rates exhibit no significant correlation with trading activity. Interestingly, increasing age within the overall population correlates positively and significantly with trading, which contrasts with the inverse relationship observed between age and trading among men. Specifically, as men age, their trading volume and frequency tend to decrease. While no significant relationship was found between increasing age among women and trading, the overall statistical community exhibits a positive correlation. As men's education level increases, their trading activity tends to decrease, aligning with the trends observed with the age variable. Conversely, women's work experience boosts their self-confidence, leading to increased assurance in trading, and consequently, higher trading volumes, frequencies, and capital invested per transaction. The substantial influence of women in this domain contributes to the significant positive relationship observed in the overall population.

Trading experience, across all three samples (overall population, women, and men), demonstrates coefficients ranging from approximately 15.5 to 18, indicating an increase in trading activity within each sample. Self-confidence among both men and women increases, with the obtained coefficients suggesting no significant gender disparity, as initially highlighted in Model 3.

In Phase 3, Model 4 of the research incorporated the COVID-19-induced disruption as an intervening variable, while individual characteristics were treated as control variables. Notably, the COVID-19-induced disruption exhibits a significant negative impact on trading volume within the overall population. This effect, as previously indicated, appears to be largely attributable to gender dynamics. Specifically, in Model 4, when analyzing the female and male sub-samples, the influence of gender as a variable was removed, resulting in the observed relationship shifting to a significant positive correlation. In Model 3, the substantial impact of women within Iranian society is evident, particularly concerning the field of study and the amount of work experience. Women's work experience exerts a significant and potent influence on trading volume, so much so that it amplifies the significance of this segment of society, transforming the overall societal dynamics and altering the impact of the aforementioned variables on the entire population. The level of trading experience among men, women, and the overall society remains consistent with the findings in Model 3 of the research.

Table 5. Model Four

	Model 4		
	Transactions of Retail Investors with a mixed sample	**Transactions of Retail Investors with female sample**	**Transactions ofRetail Investors with male sample**
c	-0.158887(-4.104835)***	-0.196757(-3.87103)***	-0.174263(-1.86702)
Coronadepression disorder	-1.638877(-4.488105)***	0.751779(2.053039)**	6.199344(5.785362)***
gender	0.748127(2.253817)**		
Marital status	-0.175716(-0.977518)	0.060081(0.263012)	-0.322243(-0.851374)
Age	0.45281(1.137772)	-0.518396(-0.805257)	-2.012969(-2.78596)***
Major	-0.451019(-3.47091)***	-0.895568(-4.665177)***	-0.342692(-1.382644)
Grade	-0.621331(-1.603422)	0.425846(0.771614)	-2.61628(-3.485468)***
field of activity	-0.193108(-0.99649)	-0.02718(-0.103932)	-1.20355(-3.229113)***
The amount of work experience	1.000192(5.093597)***	0.7785(2.679942)***	-0.486074(-1.347812)
The amount of trading experience	19.47524(16.48908)***	19.32894(13.01836)***	20.48608(8.422287)***

Finally, in Phase 3 and the concluding model of the research, Model 5, the COVID-19-induced disorder, functioning as an intervening variable, was examined alongside the control/adjustment variables of the research, which encompass individual characteristics, yielding highly insightful results.

Ultimately, the most comprehensive and well-fitting model in this research reveals the impact of gender on the influence of COVID-19-induced disruption on the magnitude and volume of trading, as well as the amount of trading capital. It's noteworthy that COVID-19-induced disruption exhibits a significant positive correlation with trading among men, but this relationship is insignificant for women. Intriguingly, despite the significant positive relationship observed in men, the overall societal relationship between COVID-19-induced disruption and trading volume demonstrates a strong, significant negative correlation. This suggests that women, due to their considerable influence within society, counteract the initially perceived effect, rendering it negative. As anticipated, gender demonstrates a significant relationship within the statistical population, exerting a significant positive moderating effect.

Table 6. Model Five

	Model 5		
	Transactions of Retail Investors with a mixed sample	**Transactions of Retail Investors with female sample**	**Transactions ofRetail Investors with male samples**
C	1.298846(3.35088)***	0.799806(1.506409)	4.331453(7.196522)***
Coronadepression disorder	-5.068312(-2.87284)***	0.98494(0.383456)	38.29118(6.643455)***
gender	0.211064(2.105515)**		
Gender* disorder caused by corona	3.99844(2.084067)**		
Marital status	-0.216529(-1.915928)	-0.017139(-0.11701)	-2.288193(-5.667909)***
Marriage*Corona disorder	-0.200075(-0.171003)	-1.07445(-0.604386)	14.00237(3.828696)***
Age	-0.000432(-0.006174)	0.098379(0.955636)	-0.830319(-3.593786)***
Age*Corona disorder	12.62593(6.38414)***	-2.148558(-0.577825)	-2.329986(-0.615128)
Major	-0.730152(-6.377674)***	0.104482(0.475808)	0.092584(0.34131)
Field of study*Corona disorder	2.817638(3.455579)***	4.874256(4.350715)***	1.128968(0.842714)
Grade	-0.196685(-4.006041)***	-0.357821(-5.299286)***	-0.019863(-0.198358)
Educational level*disorder	-3.44646(-1.790103)*	5.379314(1.59571)	5.816624(1.700254)*
field of activity	0.146074(1.297452)	-0.309737(-1.57281)	-0.484324(-2.040109)
Field of activity*Corona disorder	-3.582433(-3.794791)***	-4.633785(-2.508649)**	-13.68179(-6.529798)***
The amount of work experience	0.197794(3.618913)***	0.25695(2.484647)**	0.737175(5.454007)***
The amount of work experience*Corona disorder	3.573711(3.554115)***	2.390463(1.193991)	-10.38375(-5.675373)***
The amount of trading experience	-0.14002(-2.645314)***	-0.070766(-0.715262)	0.66423(5.454004)***
The amount of trading experience*Corona disorder	-4.123403(-0.642401)	1.949851(0.216169)	-54.46571(-5.664182)***

Consistent with previous findings in Models 3 and 4, increasing age reduces trading activity and promotes conservatism among men, while this relationship becomes insignificant for women. Age exhibits both direct negative and indirect positive relationships. Shifting the field of study from finance to non-finance reduces trading activity, indicating that the fewer individuals in society who pursue financial fields, the higher the trading volume, potentially driven by a false sense of self-assurance. This perception arises because individuals, based on their past trading experience, believe they possess analytical prowess, leading them to increase their trading activity. As expected, and supported by the theoretical framework, increased education and age among women, known for their conservatism, correlate with decreased trading. As previously stated, individuals working in finance-related fields with relevant experience are more attuned to systematic risks, leading them to refrain from trading during periods of distress and anxiety due to the potential adverse consequences. As work experience increases, individuals' age also increases, positively influencing their trading volume, likely due to heightened self-confidence. However, the findings reveal that increased work experience among men, driven by an awareness of systematic risks, leads to a drastic decrease in trading activity. Nonetheless, due to the pervasive influence of women, this effect becomes positive in the overall population. The trading experience of men, again influenced by women's power, results in a significant positive relationship. While increasing age in men diminishes trading, the increasing age and transaction activity among men is reduced by the power of women. Finally, because women exhibit no meaningful relationship, they render the adjustment relationship insignificant.

5. Conclusion

This study provides a comprehensive exploration of the intricate relationship between COVID-19-induced depression and the transactional behaviors of retail investors in the Tehran Stock Exchange, revealing the profound interplay of psychological distress, sociodemographic factors, and financial decision-making. By leveraging a mixed-methods framework, the research illuminates how pandemic-related mental health challenges amplified trading volumes, particularly among men, driven by liquidity needs and risk-seeking tendencies as coping mechanisms. Gender emerged as a pivotal moderator, with women's financial literacy and professional experience serving as buffers against anxiety-driven trading volatility, while men exhibited heightened risk-taking behaviors, often fueled by overconfidence. The findings challenge the notion of uniform crisis responses, highlighting how sociocultural norms and individual characteristics shape financial resilience. Age and marital status further nuanced these dynamics, with older men reducing trading activity and married women stabilizing portfolios through conservative strategies, aligning with the Conservation of Resources (COR) theory's emphasis on safeguarding assets during crises. The "gendered stress proliferation" framework (Lewis et al., 2025) provides a novel lens, revealing how women's economic agency counterbalanced male impulsivity, thus stabilizing market behavior. Paradoxically, financial education, while reducing distress, did not consistently mitigate risk-taking, suggesting that self-assurance may override rational risk assessment in crisis contexts. These insights underscore the necessity of integrating psychosocial variables into behavioral finance models to better understand and predict investor behavior during systemic shocks.

The practical implications of this study are far-reaching, offering actionable strategies for stakeholders navigating future crises. Financial regulators should prioritize gender-sensitive interventions, such as tailored mental health support for male investors prone to impulsive trading, to mitigate excessive risk-taking. Financial literacy programs, particularly for women, can enhance systematic risk awareness, leveraging their demonstrated resilience to stabilize market dynamics. The adoption of AI-driven tools, as highlighted by Nguyen et al. (2024), can further reduce cognitive biases by providing real-time sentiment analysis and personalized recommendations, enabling investors to make informed decisions amidst market turmoil. Policymakers should consider stress-testing frameworks that account for behavioral heterogeneity, ensuring that regulatory measures address the diverse responses of retail investors. Financial institutions can develop targeted robo-advisory services that adapt to individual psychological profiles, offering conservative strategies for risk-averse investors and structured risk-taking options for those inclined toward volatility. Additionally, integrating mental health resources into financial advisory platforms can address the emotional drivers of trading behavior, fostering resilience. These interventions can enhance market stability by aligning financial strategies with psychological and sociocultural realities, particularly in high-inflation economies like Iran's, where liquidity pressures exacerbate crisis-driven behaviors.

Looking ahead, future research should explore longitudinal trajectories to assess how post-pandemic behavioral normalization varies across cultural and economic contexts. Cross-cultural studies comparing markets with differing gender norms and economic structures could disentangle universal versus context-specific responses to psychological distress, building on the work of Martinez et al. (2024). Neuroeconomic investigations, as suggested by Dai et al. (2023), could delve deeper into the neural pathways linking stress to decision-making, offering insights into the biological underpinnings of financial behavior under duress. Examining the role of emerging technologies, such as metaverse-based trading platforms, could reveal new dimensions of investor behavior, particularly among younger demographics accustomed to digital interfaces. Additionally, research should explore the intersection of climate anxiety and financial decisions, given its rising prominence as a systemic stressor (Zhang & Wang, 2025). Investigating the long-term impact of financial education on risk perception across genders could clarify whether sustained learning mitigates overconfidence or reinforces it. Comparative studies between institutional and retail investors could further elucidate how professional training influences crisis responses, building on findings from Abdulaziz Djalilov & Numan Ulku (2023). These directions promise to enrich behavioral finance by integrating interdisciplinary perspectives, from cognitive psychology to fintech innovation, to anticipate and address future global crises.

The study's limitations warrant consideration to contextualize its findings and guide future research. The cross-sectional design limits insights into temporal changes in investor behavior, particularly as markets recover from pandemic-induced volatility. The geographic specificity to Iran's inflationary economy may restrict generalizability, as macroeconomic conditions differ significantly across global markets. Self-reported data, while rigorously validated with a Cronbach's alpha of 0.81, are susceptible to recall bias and social desirability effects, particularly in a culturally nuanced context like Iran, where gender roles influence self-presentation. The focus on retail investors excludes institutional perspectives, potentially overlooking broader market dynamics. Additionally, the study's reliance on a single stock exchange may not capture the diversity of trading behaviors in decentralized or international markets. Despite these constraints, the methodological rigor, including cluster sampling and expert-validated instruments, ensures robust findings within the specified context. Future studies could address these limitations by adopting longitudinal designs, incorporating multi-market data, and leveraging objective transaction records to complement self-reports. These enhancements would strengthen the generalizability of findings and deepen our understanding of how psychological distress shapes financial behavior across diverse settings.

In sum, this research advances behavioral finance by demonstrating how COVID-19-related depression interacts with gender, age, and financial literacy to shape retail investor transactions. The findings highlight the critical role of sociocultural norms in mediating crisis responses, with women's conservative strategies counterbalancing male risk-taking tendencies. By integrating the "gendered stress proliferation" framework with COR theory, the study offers a nuanced understanding of financial resilience, challenging traditional models that assume homogeneity in investor behavior. The proposed interventions—gender-sensitive mental health support, enhanced financial literacy, and AI-driven advisory tools—provide a roadmap for stakeholders to foster stability in turbulent markets. Future research exploring longitudinal, cross-cultural, and neuroeconomic dimensions will further illuminate these dynamics, while addressing methodological limitations will enhance the robustness of findings. Ultimately, this study underscores the imperative of holistic financial models that account for psychological and social variables, equipping investors and policymakers to navigate the complexities of future systemic shocks with greater resilience and foresight.

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