

## Corona Anxiety and Women Trading Style

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### Abstract

Women have been trying to gain independence throughout history. In recent years, advances in technology and business have helped women to achieve this goal. According to women's personality and psychological characteristics, there are differences in their trading styles. One of the factors influencing the choice of this type of strategy is stress. In the last few years, stress and anxiety caused by Corona have become epidemic. In order to test the hypotheses, women traders active in the financial markets of Iran were examined using a

Likert questionnaire in 2022, and interesting results were obtained. In order to carry out the research of this study, an interview was conducted first to find suitable questions and validity. Then, the statistical population and sample were selected, and the final questionnaire was distributed among them. MATLAB software was used to identify the number of common descriptive characteristics of the respondents, and finally, using EViews software, statistical analysis related to hypothesis testing was performed. The result shows that women play more conservatively and are risk-averse during the period of coronavirus infection. It has no effect on the volume and capital used in the transaction. The Corona anxiety has significant effects on the three dependent variables of conservatism, trading style, and trading (volume, capital, and number of transactions).

**Keywords:** Corona, Trading Styles, Conservatism, Risk Aversion, Risk Taking.

## Introduction

In today's Iran, with the behavior change, the participation of women to increase financial independence has increased more than before (Rahimisajasi et al., 2022), and trading is one of the ways to achieve independence, which is created through the acquisition of various knowledge that does not have gender differences. In different societies, having different cultural, social, and economic styles may encourage the activities of half of the society, i.e., women, in production and financial activities. At the same time, some societies prevent these activities (Akurugu et al., 2023).

Success in capital and financial markets requires a suitable strategy and sticking to it (Heidary, 2019). Finding a trading style that suits your personality and daily lifestyle is an important factor for success in the world of trading (iranbourseonline site and Sahebjadi, 2021). Risk acceptance is one of the predictive factors in investment decisions (Dita et al., 2022). People have different personalities, and this leads to different behavioral results. People have different points of view on accepting risk and are divided into two groups: risk takers and risk avoiders (Heidary, 2019). In the face of uncertainty, the individual's risk-taking tendency determines what decision to make. Risk-taking is a tendency to accept risk, ultimately increasing the probability of engaging in risky behaviors (Gholipor et al., 2018). A risk-averse person prefers avoiding losses to making profits. This feature drives investors in the market toward investments with lower returns and relatively known risks rather than choosing investments with higher potential returns but with more significant uncertainty and greater risk (CFI site). According to empirical

evidence, most investors are risk-averse and want additional returns to accept more risk. A person's personal characteristics and lifestyle determine the amount of risk that a person can bear (Ebrahimi et al., 2020). People tend to make choices that minimize regret instead of risk (Li et al., 2023). These countries' cultures differ in their approach to risk and uncertainty, which can significantly affect decision-making processes (ndto site). For example, the culture of the Middle East is traditionally influenced by uncertainties, there are more geopolitical factors and economic fluctuations, so people tend to be somewhat risk averse (ndto site). Molins et al. (2022) found that risk aversion depends on factors such as age, gender, or level of education, can have a genetic basis, and is closely related to a person's emotions. Conservative people prefer stability, order, conformity, and avoiding ambiguity. Conservatives seek security, find ambiguous issues threatening, and prefer conformity and conformity to change (Mendez, 2017).

A person can have a combination of the above traits, which leads to the creation of different trading styles. Trading has four main styles, and traders can be classified into four categories: scalper trader, day trader, swing trader, and position trader (Sahebadi, 2021; Heidary, 2019). The difference between trading styles is based on the duration of trading. Scalping trades are done in just a few seconds or a few minutes at most. Daily transactions are done in a few seconds to a few hours. Swing trades may take several days. Position transactions can also be done from a few days to a few years (Sahebadi, 2021). Swing is a style of trading that tries to make short-term to medium-term profits in a stock (or any financial instrument) in several days to several weeks (Mitchell, 2022). Position trading is a long-term strategy in which a trader purposefully holds a position for several weeks or months and waits for a large price move. This type of trading method has a different philosophy than the day trader, which aims to obtain smaller fluctuations by buying and selling on the same day (Lawler, 2021). Trading can be done by either male or female traders. However, traditionally, investing has been dominated by men (CMC markets site), and various topics have been raised about the difference between men and women in trading (O'Mahony, 2014; Swan, 2017; CMC markets site). Statistics show that female traders have increased in the last half century (CMC markets site). The performance results of men and women have been examined in various research based on several studies; when it comes to investing, women outperform men over time (Blikre, 2021; Swan, 2017; O'Mahony, 2014). From the point of view of patience, traders can be divided into patient and hasty. The Nasdaq report adds: "In general, women are more patient" (Blikre, 2021 page number.....). Women have a longer investment horizon

than men, and they try not to invest hastily and to reduce the risk of side contributions (trading bells site; CMC markets site) and spend more time due to their desire to make more accurate decisions, while men usually prefer to make such decisions personally (trading bells site). Factors beyond the trader's control, such as natural disasters, war, and epidemics of diseases such as Corona, besides trading style and gender, are effective in making investment decisions. Rehman et al. (2024) showed that the COVID-19 crisis has an effect on people's behavioral biases and investment decisions. Niculaescu et al. (2023) found that the first wave of COVID-19 had an impact on individual investment decisions in America.

Throughout history, mankind has faced various challenges and crises in life. The crisis facing the world at the present time originated from the Coronavirus, which has the scientific name COVID-19. Research shows that this disease attacks different parts of the body, irritates different parts of the body, and even causes nervous disorders (Samadian, 2021; Shahyad & Mohammadi, 2020). During the epidemic of a disease such as Corona, the fear of disease and fear of death, along with the confusion of daily activities, causes people to get involved with disease anxiety (Fischhoff, 2020). Anxiety about COVID-19 is common, and it seems that the reason is mostly unknown and creating cognitive ambiguity in people about this virus. Fear of the unknown reduces the perception of safety in humans and has always been a source of anxiety for humans about COVID-19; this lack of scientific information also aggravates this anxiety (Bajema et al., 2020). A group of researchers identified the symptoms and behaviors related to COVID-19 anxiety and named this phenomenon COVID-19 anxiety syndrome. Its symptoms include the inability to leave the house due to the fear of COVID-19, frequent checking of symptoms despite not being in high-risk groups, and avoiding social situations (Drake, 2021). At this time, people are looking for more information to relieve their anxiety (Alipour et al., 2020). Stress, anxiety, and depression are observed as a result of corona infection long after the acute symptoms have been resolved (Zimmerman et al., 2023). Corona acts as a psychological shock and can cause disorders related to shock and psychological stress (Fadaei, 2021). According to researchers, mood disorders and anxiety are among the most common mental disorders of COVID-19 sufferers (pcoiran site, 2022; iribnews site, 2021; Shahyad & Mohammadi, 2020).

Humans choose a style that suits their mood (consciously or unconsciously) according to their temperament, personality, tolerance, and risk-taking. Research has shown that women are more patient, risk-averse, and have a defensive temperament (Blikre, 2021; Swan, 2017), which means that

their trading lifestyle is also affected by these traits. Women make up half of the world's population, but traditionally, until now, the dominance of the trading population has been in the hands of men, and the results of various research show that the number of female traders in the world is increasing (D'ambrosio, 2022; iranbourseonline site) it has been felt that there is a need to do a research on this half-potential risk-averse patient with a defensive temperament in choosing a trading style. It further shows that other uncontrollable external factors will appear, such as the Corona epidemic. In this research, we intend to address the issue of whether or not women traders change their personalities and trading styles when faced with external pressure from uncontrollable factors.

The following aspects of innovation of this research are: 1. Investigating the trading style of women in Iran 2. The effectiveness of trading style, the level of risk-taking and conservatism in women in the conditions of anxiety caused by Corona, which is expected to strengthen the theoretical foundations of the field of trading style, especially the trading style of women, as well as the information to be new about the variability of women's behavior in anxiety conditions. In the continuation of the research, the theoretical, conceptual framework, research method, statistical results, and conclusions are presented.

## **Literature Review**

In the middle of the 19th century, the "women's movement" was formed as a result of "women's efforts to improve their status and usefulness in society" (Cruea, 2005-page number .....). The role of women in economic development by considering a basic strategy can be associated with identifying the strengths and capabilities of women in various fields, examining the removal of existing obstacles and limitations with principled planning, and identifying advantages and limitations (Mohammedzadeh & Yekta, 2014). A study by Swan (2017) found that in Finland, female traders behave much more "contradictory" than male traders. They tend to buy stocks after a sharp fall in price and sell to men following a significant price rise. Women appear to lose in the short term but gain in the long term after a sharp price swing, and although men's trading activity increasingly dominated that of women over the 17 years studied, women's trading was more successful. This success could be due to their better performance in picking up subtle differences in the market and their lack of impact from rapid price increases (Swan, 2017). Women have a positive and significant influence on financial market development indicators. So, women can play a significant role in the development of financial markets

(Aleemran & Tabaghchi, 2015). Extending the benefits of trade to women is not the only issue of equal rights. Women's participation in business-related work helps countries accelerate economic growth, increase their export competitiveness, and achieve other development goals such as reducing poverty, improving welfare outcomes for children, and improving the social status of women (Livani & Solotaroff, 2019). Women's low interest, low self-confidence, and high-risk aversion when investing usually result in better returns (O'Mahony, 2014).

Recent critics of the efficient markets hypothesis argue that investors are generally irrational and exhibit a number of predictable and financially damaging biases that are often attributed to psychological factors such as fear, greed, and other emotional reactions to price fluctuations and dramatic changes in investor wealth. However, recent research in cognitive science and financial economics shows an important connection between rationality in decision-making and emotions (S. et al., 1987; A. Damasio, 1994; Jon Elster, 1998; Lo, 1999; George Loewenstein, 2000; E. Peters and P. Slovic, 2000), which implies that these two concepts are not opposites, but actually complement each other (Andrew et al., 2005). Lieber (2021) states that women can be better investors than men. The reason for the superior efficiency of women is their trading style; that is, they have fewer purchases and sales than male traders because they do not have overconfidence. In their study, Barber and Odean (2001) concluded that men trade more than women because they are more confident than women and thus reduce their returns more than women. Furthermore, these differences are more pronounced between single men and single women. In other words, too much confidence leads to more transactions and a decrease in expected utility. People's decision-making approaches are multidimensional. People appear to use a combination of styles rather than relying solely on one approach when making important decisions. Older people and women were less in the emotional/experiential decision-making profile (Delaney et al., 2015).

Because women traders do not have access to financial or physical assets, skills, and business information, they are largely prevented from formalizing or expanding their businesses, trapping them in a hand-to-mouth cycle of poverty and disempowerment (Harper, 2020). Experience has shown that women are much more conservative than men; this trait can be a definite trump card in the stock market (Eshghi, 2020). However, men were faster and less accurate than women in low-anxiety conditions, while they were equally fast and still less accurate in high-anxiety conditions (Von Kluge, 1992). Women's lack of knowledge about business laws makes them highly vulnerable to corruption

and harassment. At the same time, the regulatory framework is cumbersome and inefficient and limits the scope of women traders to operate successful and profitable companies (Harper, 2020).

### **Research Background**

Financial literature has shown the effect of demographic factors such as gender, age, income, experience and marital status, education, and type of culture on risk tolerance and investor behavior. Some researchers have shown that investors with higher levels of education and female investors are less biased, more conservative, and tend to have fewer transactions and better investment returns (Rehman et al., 2024; Dita et al., 2023). In addition, recent research investigated the effect of the Covid-19 pandemic on the type of risk-taking of investors (Rehman et al., 2024), but despite the limited nature of this type of research, conflicting and heterogeneous results are observed (Niculescu et al., 2023).

A study by Merrill Lynch in 2005 showed that women have less interest and knowledge in the field of investment than men (O'Mahony, 2014). Skonieczna and Castellano (2020) concluded that, on average, women have less investment knowledge and less investment confidence than men. However, they made fewer mistakes and were less likely to repeat the mistakes they made (O'Mahony, 2014). Studies show that women perform better in trading than men (O'Mahony, 2014; Swan, 2017; CMC markets site; Bose et al. 2020), not because of superior stock-picking ability but because they simply make fewer mistakes (O'Mahony, 2014). Lieber (2021) considers the reason for the high success of women compared to men in the discussion of investment to be the overconfidence of men and states that women are less likely to be victims of this problem. Excessive confidence leads to more transactions and reduced expected utility (Barber & Odean, 2001). Female traders can be much more selective, as they spend more time evaluating before making a trade and take a calmer approach during financial hazards. Previous research shows that women trade less than men, but this research does not show why (Swan, 2017). Increasing the proportion of female traders does not necessarily make markets less volatile. But it reduces the occurrence of market crashes. Male traders, on average, perform less well than females (Bose et al., 2020). Finally, a person's specific emotional context is also often influenced by external factors such as market events, family history, and even the weather and other environmental conditions (Andrew et al., 2005). Research results show that the significant gender difference is how men and women react to anxiety, and women were more accurate in anxiety, while they differed in response speed. Furthermore,

female traders outperform their male counterparts in terms of average earnings (Bose et al., 2020). By investing less and holding positions longer, women often generate greater financial returns and behave more reasonably on volatile days. Women's trading behavior, often associated with patience and analysis, has a stabilizing effect on capital markets. They trade less and implement strategies that are less extreme. Women focus on their ultimate spending goals. In the male field, women who choose a trading career are still in the minority and, therefore, can be more determined to succeed (CMC markets site). In 2018, more than 90% of the capital raised by European VC-backed tech companies went to teams that did not have a single female founder (Skonieczna & Castellano, 2020).

Lieber (2021) considers the reason for the high success of women compared to men in the discussion of investment to be the overconfidence of men and states that women are less likely to be victims of this problem. Research results such as Swan (2017) show that female traders are better traders because they use a calmer approach and spend more time on evaluation. These results lead us to the fact that the trading style of women is different. Psychologists have found that in areas such as finances, men are more overconfident than women. This difference in overconfidence yields two predictions: men trade more than women, and men's performance suffers from overtrading more than women's performance (Barber & Odean, 2001). A famous study conducted by behavioral finance experts Barber and Odean found that men traded more than women and earned less annually (O'Mahony, 2014). The result of Swan's (2017) research shows that although trading activity has increased during the 17 years of study, women's transactions have been successful. The reason for this is the desire of women to buy stocks after a sharp fall in price; women often make profits, and men often lose. In general, an example of the reasons for women's success is the small size of the portfolio (3-4 shares), buying after a sharp fall in stock prices, and selling at higher prices, which requires a lot of patience.

Due to the lack of research on female traders in Iran, as well as research on the effect of anxiety caused by Corona on the choice of trading style, risk-taking, and conservatism of female traders at the global level, and also according to the theoretical foundations mentioned above, the following assumptions are suggested:

## Hypothesis

Hypothesis 1: Corona anxiety makes female traders conservative in trading.

Hypothesis 2: Corona anxiety causes female traders to trade boldly.

Hypothesis 3: Corona anxiety has no effect on the transactions of female traders.

Hypothesis 4: Individual characteristics affect conservatism.

Hypothesis 5: Individual characteristics have an effect on bold trading.

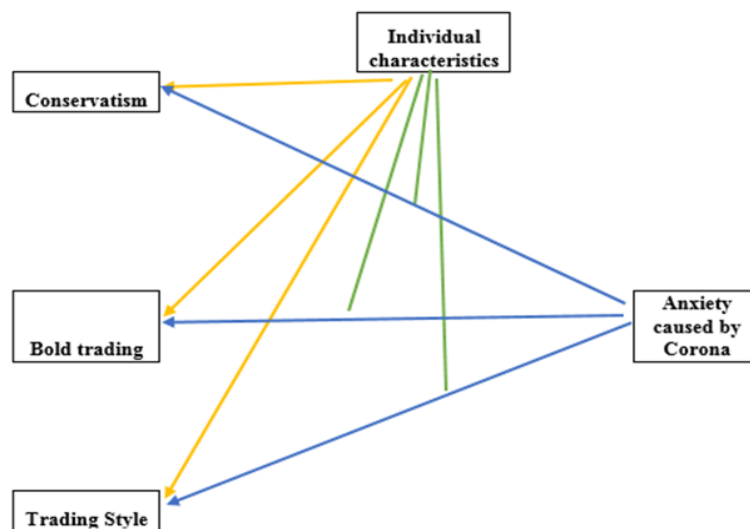


Figure 1. Conceptual Model

## Research Methodology

This research is practical because the results of the assumptions can potentially be used by investors, especially the women's community, and increase public self-confidence. Also, the research is of a descriptive-correlation type. In order to test the hypotheses, the Likert scale was used to identify some relationships, MATLAB software was used to select the most optimal answers, and regression tests were used to test the hypotheses of the research. In the first stage, basic questions were prepared and given to 10 experts in the fields of investment, psychology, and academics experts. After reviewing the initial

feedback, the revised questions were sent to these experts, and validation was finally completed. The rest of the data collection and research steps are mentioned in the data section.

### **Data**

According to the definition, the trading style and the division of investors and traders are grouped into three categories: conservative, bold, or risk-averse. It is expected that the selection of the amount, direction (long-short), and duration of the time of closing the trading position in the discussion of trading, as well as the selection of suitable or unsuitable assets in the investment portfolio, are affected by the infinite number of factors, each of which has a different size in the amount of influence. In this research, we are looking to investigate the extent of this effect according to the results obtained in the lack of concentration caused by the nervous disorder caused by the anxiety of Corona. The statistical population of the current research was eight hundred and twenty thousand (source: Tejarat News, active traders in the Iranian market, Tehran Stock Exchange market). Because there is no accurate information on the number of active women traders, fifty percent of active female traders were considered. According to the announced statistics, about one-fortieth of Iranians were infected with Corona. In the end, ten thousand active female traders were infected with Corona. In order to reach the number of samples, Cochran's formula was used, which determined the number of 370 active traders. The questionnaire distribution method of this research was done by two methods, manual and online; Google Docs was used in the online method, and finally, 270 respondents completed it through Google Docs, and 100 respondents completed it through the manual distribution of the questionnaire.

### **Research Analysis**

In the beginning, we used the central characteristics and dispersion of the statistical sample to identify the studied population. In order for our statistical sample to be a true representative of the society, we used cluster sampling, which was described in the research method section, and we reached the number of 370 samples among women traders active in the Tehran Stock Exchange. The analysis of the averages for this sample shows the following:

**Table 1.**

N= 370	Range	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
Marriage	1.00	1.00	2.00	1.6693	.47109	.222	-.722	-1.486
Age	4.00	1.00	5.00	3.2708	.99848	.997	-.564	-.228
Major	1.00	1.00	2.00	1.2813	.45020	.203	.977	-1.051
Education	4.00	2.00	6.00	4.1927	1.12385	1.263	-.274	-.550
Working in the finance industry	1.00	1.00	2.00	1.3932	.48910	.239	.439	-1.817
Work experience	3.00	1.00	4.00	2.0833	.94404	.891	.282	-1.061
Trading experience	3.00	1.00	4.00	1.4974	.63820	.407	1.524	3.620

## Results

The average of 1.69 for the marriage of the questionnaire respondents shows that more than 70 % of the respondents were married. The age range was 35 to 46 years, and their field of study averaged 1.28, showing that about 75% of the female respondents had a field of study related to finance. Seventeen of them had doctorate education. The field of activity is also skewed to the right, and it shows that most of the respondents worked in the field of finance, and 1.4 means that most of our respondents worked in finance less than the percentage who studied finance; in other words, women who studied finance and work in finance became less. About 75% studied finance, but about 60% worked in finance, and their work experience was between 6 and 10 years. The trading experience is between two to five years, which indicates that a trading experience is almost the beginning of trading after the bachelor's degree because most of the respondents are oriented towards post-graduate studies, master's and doctoral students, and a few are graduates and with attention to work experience between 2 and 5 years, it can be concluded that the respondents of the questionnaire started trading after completing their undergraduate studies.

In the process of conducting the current research, first, with the help of 12

experts and academics, 22 items and seven general questions of the questionnaire were designed and standardized. Cronbach's alpha was used to measure its reliability. Cronbach's alpha was 0.84, and according to the critical limit, the answers of the respondents were reliable and suitable for analysis. In this questionnaire, five-point Likert questions are generally used, but some questions are yes and no, which will be interpreted classically in the interpretations. In the third stage of analysis, the frequency of respondents of each group was measured using MATLAB software. We measured the frequency or result of the number of respondents and reached the highest result of 32 respondents out of 370 people in the group of married people in the age group of 36 to 45 years, field of study in finance, degree of doctoral student, field of financial activity, amount of work experience 6 to 10 years and the amount of trading experience was less than two years. These people were the main respondents of this research. That is, they had the most results or the most frequent questionnaires, and in this research, we consider two parts of the analysis. One part of the group had the largest number of respondents, that is, 32 people out of 370 people whose descriptive characteristics were taken, and the second part will analyze the totality of the research community and their answers on average.

According to the filters made from the output obtained from the MATLAB software, we interpret the answers to the questionnaire items:

Our questionnaire items are divided into two parts. The first part of the items was about the anxiety caused by the Coronavirus, and the second part was related to anxiety caused by the Coronavirus and its effect on women's transactions. The question of anxiety caused by Corona and anxiety caused by the spread of Corona was between 2 and 3; that is, their answers were between sometimes and rarely, and this shows that they were not very worried about getting infected with Corona and were not worried about the transmission of Corona. This is about the tension caused by It was true that the Coronavirus was not a nightmare for them and that it did not reduce their physical activity, but the working conditions and age of people were very effective in their attitude towards the Coronavirus, the reason of which can be said that women with attitude and the thought of staying in the financial market and the sense of competition they have and the resistance they created in themselves accept that these conditions cannot affect them. The number of open transactions during the coronavirus infection period was lower compared to other periods. Seeing losses and making losses destroys their concentration, and for this reason, during the Corona period, due to their physiological conditions and vulnerable conditions, they did not make a transaction, fearing that the transaction would

cause losses due to their lower concentration, to be seen and that's why they prevented it, which is in line with the conservative behavior of women in transactions, which was expected.

When they have a profit, their risk tolerance increases and the answers of the respondents were answered in line with the previous question; that is, the female respondents who were infected with Corona believed that the profit does not lead to their emotional behavior, and this issue brings us back to this. It concludes that women act conservatively in their transactions. In the previous case, at the time of loss, it caused their anxiety to increase, which they prevented in advance and did not trade during the period of illness, and in this case, due to being conservative, they believe that they prevent emotional behavior after the profit. The next subject believed that the level of excitement increased during the trading period, and very interesting results were obtained regarding the excitement caused by Corona. In response to the level of excitement caused by Corona's anxiety about trading, the respondents answered that they had no opinion. This means that the respondents did not pay attention to the factor called Coronavirus as an effect or effect on their traders at all; that is, the traders did not consider this factor in their trading during the period when they were suffering from Coronavirus. For this reason, they did not get excited, nor did they take less or more risks. In other words, the external factors that society thinks are effective in trading do not apply to women. The prediction of the answers of the respondents was in the first two items; that is, in those items, it was predicted that the respondents would act conservatively.

In the next issue, during the period of coronavirus infection, the amount of consultation has increased; as we can say, the coronavirus factor as an external factor has been effective in the systematic process; it affects the decision-making of the trader. As a result, because this external factor is systematic, it is decided to use consultation to neutralize the systematic effect of that external factor.

In the next item, it was asked that during the period of corona infection, I liquidated and sold my assets due to insufficient concentration, which the respondents were against this issue; in other words, in confirmation of the previous answers, this group of respondents believed that Corona period did not have any effect on their trading style and they did not change their assets in any way during this period and continued their ownership.

In the next item, when I found out that I was infected with Corona, I had heart palpitations, and I had visible symptoms. Most of the respondents

believed that their symptoms of Corona were obvious; that is, they were not hidden, and they and the people around them noticed. They were not infected with Corona, and this shows that the women traders had so much control over themselves that even though the symptoms dominated them, they were still in control of their decision-making process, and this control prevented them from changing their trading style.

They did not change their trading style; as we said, according to the answers of the respondents, the trading style was surfing in the past, and here, too, their trading style has not changed at all, and after contracting Corona, it still leads to the same trading style of surfing. The respondents gave more importance to risk aversion than conservatism, and this discussion shows that in their trading styles, it is true that it is a surfing style, but according to the consultation they had with experts, they tried to neutralize the external factor of Corona, to minimize their risk and considered risk avoidance to be the most effective and most important in their decision-making process.

The responses of respondents almost all believed that during the Corona period, the transactions they made were profitable transactions, and this was due to the discussion of caution, discussion of risk aversion, discussion of acting conservatively, discussion of the number of very low transactions, and discussion of neutralizing the effect of anxiety. And finally, more attention has been paid to the transactions of legal entities. The reason for this is the effectiveness of legal entities in the pricing of capital assets in Iran's financial market. This answer may be different in the financial and capital markets of other countries, but the experience of trading in Iran's capital market shows that one of the most effective market players in the emerging capital market of Iran are legal entities, and this issue was realized by female traders in Iran, as a result, in the selection of assets and trading style, the time of entry and the time of exit even in the period two weeks of corona treatment also paid great attention to the transactions of legal entities to reduce their risk.

**Table 2. Statistical results**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
	Conser vatism	Conser vatism	Conser vatism	Tradin g Style	Tradin g Style	Tradin g Style	Tradin g	Tradin g	Tradin g
c	12.003( 28.223) ***	17.106( 21.276) ***	0.077( 2.292) **	- 0.331(- 7.256)* **	- 0.324(- 6.828)* **	0.077( 2.292) **	- 0.028( - 2.461) **	4.446( 13.229 )***	0.201( 1.831) *
C A	- 0.220(- 7.114)* **	- 0.246(- 8.217)* **	0.654( 5.247) ***	29.034( 46.278) ***	- 1.179(- 2.963)* **	0.654( 5.247) ***	3.841( 24.226 )***	- 0.027( - 2.119) **	0.615( 1.401)
Ma		- 0.040(- 0.159)	0.223( 2.950) ***		0.028(0 .132)	- 0.978(- 3.800) ***		- 0.139( - 1.316)	- 0.053(- 1.656) *
CA *M a			- 0.417(- 0.619)			- 2.854(- 2.735) ***			- 1.005(- 3.616) ***
Ag e		0.024(1 .007)	0.038( 0.727)		- 0.753(- 1.591)	0.223( 2.950) ***		- 0.098( - 1.727) *	0.073( 3.350) ***
CA *A ge			- 3.971(- 3.517) ***			- 0.417(- 0.619)			0.965( 2.070) **
Mj		- 0.902(- 3.015)* **	0.263( 3.141)		- 0.847(- 5.361)* **	0.038( 0.727)		- 0.057( - 0.545)	- 0.090(- 2.620) ***
CA *M j			- 1.468(- 3.283) ***			- 3.971(- 3.517) ***			- 0.001(- 0.007)
Gr a		- 0.845(- 8.466)* **	0.058( 1.691)		- 0.107(- 0.243)	0.263( 3.141) ***		0.003( 0.061)	0.001( 0.059)
CA *G ra			- 1.261(- 1.228)			- 1.468(- 3.283)			1.947( 4.584) ***

						***			
Cr		- 0.444(- 1.596)	0.062( 0.792)		0.299(1 .247)	0.058( 1.691) *		0.032( 0.508)	- 0.163(- 5.106) ***
CA *C r			1.859( 3.368) ***			- 1.261(- 1.228)			0.134( 0.572)
Ex p		0.176(1 .164)	- 0.128(- 3.168) ***		0.174(0 .837)	0.062( 0.792)		- 0.026( - 0.473)	- 0.017(- 1.025)
CA *E xp			0.718( 1.456)			1.859( 3.368) ***			0.354( 1.695) *
Tr- Ex p		0.001(0 .005)	- 0.048(- 1.477)		34.344( 26.990) ***	- 0.128(- 3.168) ***		- 0.324( - 0.534)	- 0.031(- 2.222) **
CA * Tr- Ex p			20.871 (6.144) ***			0.718( 1.456)			1.808( 1.295)

The current research was designed to investigate the mentioned assumptions in the form of three general models, and each model was examined and explored in three phases. The first phase only directly examines the anxiety caused by Corona on the dependent variables of conservatism, trading style, and trading. In the second phase, the anxiety caused by the Coronavirus is examined along with the personal characteristics of the respondents in order to understand the effect of a systematic external factor, and in the third phase, the interactive relationship between the individual characteristics and the anxiety caused by the Coronavirus was measured on the dependent variables. From the difference between the response of the direct effect of individual characteristics and the interactive effect of individual characteristics on the relationship between anxiety caused by Corona and dependent variables, interesting results have been obtained, which we will examine in the following.

The first phase of the research, in the form of three models, the first, fourth, and seventh, shows interesting results; the anxiety caused by Corona has caused them to be less conservatism in trading, which has caused the trading style to be pushed to the bold side and finally traders, the volume of transactions and traders will be more than before. As the negative coefficient

obtained from the relationship between anxiety caused by Corona and conservatism shows, this gives the researchers a signal that anxiety caused by Corona causes the level of conservatism of the questionnaire respondents to decrease to a very small extent. The reason which is mentioned is that it decreases to a very small extent. The obtained coefficient is -0.22, which is very close to zero, which means that the respondents reduce their conservatism, but this decrease is not very visible and not very impressive. In model 4, however, the results obtained from the trading style indicate fewer transactions. According to the obtained coefficient of 29 for anxiety caused by Corona, it shows that as the anxiety caused by Corona increases, the trading style moves towards more risk aversion because, in the definition of trading style, higher numbers indicate the choice of risk trading style. It is more elusive. The analysis of model 7 shows that the trader increased the number and volume of transactions both in terms of number and capital used under the influence of anxiety caused by Corona, that is, when the person was infected with Corona and had anxiety caused by Corona 2.84% did more transactions with larger volume and more capital intensive transactions than other times.

In phase 2, as mentioned above, we examined the effect of anxiety caused by Corona along with individual characteristics. In addition, we directly examined the effect of individual characteristics on the dependent variables. The connections were obtained in models 2, 5, and 8. The comparison between the effect of anxiety caused by Corona on three dependent variables, along with individual characteristics, shows us very interesting results. In this way, the anxiety caused by Corona has a very small destructive effect on conservatism; that is, it reduces conservatism, but severely, this reduction of conservatism is low. For respondents who have higher financial education and higher financial experience, the anxiety caused by Corona will make them more risk-taking; in other words, in our society as a whole, we can expect that an external factor like Corona will make the society more risk-averse, but in the strata with higher education related to finance and with higher levels of graduate education, this factor not only did not increase their risk aversion but also made the respondents more risk-taking. Finally, in model 8, people with the aforementioned characteristics did not change the number of their transactions. It is true that the obtained coefficient is negative, which means that the respondents reduced the amount of volume and capital involved in their transactions during the period of coronavirus infection, but the coefficient to Zero is close, which means that it can be concluded that these people do not change much in the number of transactions, volume and capital involved and the continuation of the analysis, we will discuss the direct effect between an

individual's characteristics and dependent variables, which as can be seen, the marital status has no change in a person's attitude and type of activity, and has no effect on her thought and worldview. As a result, there is no change in any of the discussed variables.

As it is known, increasing age does not have much effect on the dependent variables, and we come to the conclusion that increasing and decreasing age, despite the predictions made in the research, has an effect on accepting the level of conservatism, risk aversion or risk-taking and the number or transaction volume and capital are not involved. But as it is known, an unrelated field of study causes a decrease in conservatism, and an unrelated field of finance causes an increase in risk-taking. A negative relationship is obtained between academic field and conservatism as well as transactional style, which means that the more a person moves to an academic field unrelated to finance, the level of conservatism decreases, and the risk tolerance increases. The result obtained from the level of education shows that the higher the level of education of people, the level of their conservatism decreases, which can be seen as a result of related financial theories related to the learning curve in which people, according to the level of the education they have, the level of education they have, the excessive confidence they have in themselves or the people they consult, this will reduce the amount of conservatism they use. For the field of activity, the related field did not create any relationship between the dependent variables and the amount of work experience. Examining the amount of trading experience shows that the more trading experience a person has, the more risk-averse the trading style is, and this can also be the result of the amount of experience a person has had in making losses in the past years. The higher the level of experience, the higher the level of risk that a person considers for himself in his or her trading style.

Phase 3: In the last phase, the effect of individual characteristics on the relationship between the anxiety caused by the Coronavirus and the three dependent variables of conservatism, trading style, and bargaining were investigated, and the results showed that in addition to the aforementioned individual variables, the anxiety caused by the Coronavirus affects conservatism. It has a positive effect, that is, the anxiety caused by Corona causes an increase in conservatism, it causes the acceptance of a more risk-averse trading style, and it has no effect on the volume and capital used in the transaction. However, regarding marital status, as we said from the results obtained from the direct relationship between marital status and dependent variables, no significant relationship was found between them, and this relationship is slightly different due to the interactive effect of these two

variables. In other words, when a married person gets infected with Corona, her trading style becomes more risk-averse, and her trading volume decreases, which can be seen as the level of risk-taking of married people. Increasing age reduces the relationship between anxiety caused by Corona and conservatism and also increases the volume of transactions because when a woman gets older, the amount of consultation from other people increases, and also, according to the learning curve, the amount of self-confidence of a person's overconfidence in himself increases. As a result, this causes a decrease in conservatism and, as a result, increases the volume and number of transactions. If a person has a field of study that is not related to finance, during the time of anxiety caused by Corona, her conservatism will decrease. Therefore, her trading style will move towards riskier transactions. When a person has a work-related, financial-related field in the field of work, according to the character and financial vision she finds, she may become overconfident in herself and her trading strategy. The results obtained from work experience in the amount of risk-taking and the number and volume of capital involved in transactions show us different results, so with the increase of work experience, risk aversion increases, but the results obtained show the opposite. The interpretation shows that with the increase in work experience, the level of accuracy and scrutiny of the individual in each transaction increases. As a result, she becomes more risk averse, but this risk aversion does not prevent capital from entering into transactions and increasing the number of transactions; rather, the individual increases her risk aversion. She observes when entering and only enters into transactions, and her own investigations show that the risk of entering into that transaction is low, which has caused an increase in the number of transactions. The amount of trading experience also makes a person act very conservatively during the period of coronavirus infection, and it can be normal that the more experience a person has, the side effects that can have a bold and non-conservative entry into transactions. She should understand her personal life, economic life, and family, and this will increase her level of conservatism.

## **Discussion and Conclusion**

One of the important sections of society that have been the intellectual, practical, and emotional arm of the family throughout history is women, who make up almost half of the active and inactive population of society. Throughout history, women have always sought to gain independence in various fields, one of the most important of which is financial independence from their families and, in the case of marriage, from their husbands. One of

the platforms that has been provided for this segment of society in recent years is the issue of trading, and women can trade freely anywhere in the world and use their characteristics and temperaments to advance their goals. The research showed that women are usually more cautious, conservative, and, at the same time, more risk-averse people, and as a result, they make fewer transactions and these characteristics and moods that the authors of the present study saw in women in society made them think this and find out whether these characteristics can affect their moods, the behavioral expression of those internal characteristics in special conditions when systematic risks overcome the entire society, including this stratum. As a result, they decided to conduct research on this issue during the occurrence of an uncontrollable external factor called Coronavirus. As a result, this research aims to answer the question of what the behavior of women traders in the Corona period and whether their trading style, the amount of profit margin, the amount of excitement, and the amount of conservatism, caution, and risk-taking have changed in this era compared to the previous era.

It has been investigated, and the important factor that was sought to be achieved in this research is that the respondents of the questionnaire were asked to give their answers according to the time of coronavirus infection, meaning that the respondent must have been in this period about two years of the global conflict with Corona has been infected with Corona, and for the answer, consider only the period during which she was infected with Corona, or was hospitalized, or was under home quarantine. For this purpose, first, the statistical population that includes all the active traders in Iranian society was obtained through the source of Tejarat News, which was about eight hundred thousand, and after that, the number of active women traders was extracted and according to Cochran's formula for selecting the sample, the number was 370, and it should be noted that for the authors of this research, finding traders a lady who was infected with Corona and is an active trading member of the community. It was a very difficult and time-consuming task, and their research mission forced them to do this research.

After finding active trading women who experienced coronavirus infection or anxiety attacks caused by it, the present research was conducted in the form of three main models in three research phases that led to the presentation of three regression models to investigate the relationship between anxiety caused by Coronavirus. Three dependent variables of conservatism, trading style and trading volume, capital, and number of transactions have been carried out, the results of which generally indicate that the anxiety caused by Corona has significant effects on the three dependent variables, and it can be concluded

that unpredictable systematic factors can affect the behavior of female traders in Iran. However, these behaviors undergo changes with age, marital status, education, and work field, as well as an increase in work experience and trading. It can be concluded that due to the existing social restrictions to maintain their economic life, women in Iran use all their personal potential and also consult with others so that they can achieve the result, which is primarily to maintain economic stability and secondly put the conversations that were conducted independently with the experts in the field of anxiety to reach the items of the questionnaire. The present researchers came to the conclusion that the internal characteristics of a person are also very effective in the manifestation of her behavior. Internal traits are divided into two categories: acquired and non-acquired.

Since the topic of this research is unique, therefore, to some extent, the results of the research can be compared with the study (Rehman et al., 2024). They concluded that the COVID-19 crisis significantly affected herd behavior among Investors. Also, the results of this research are in accordance with the study of Dita et al. (2023), who came to the conclusion that during the Covid period, investors adopted conservatism due to their lack of risk tolerance, and it is also consistent with the research Niculaescu et al. (2023) that during the Corona pandemic period, Women reduce their investment compared to men and are more conservative.

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The authors declared no potential conflicts of interest concerning the research, authorship and, or publication of this article.

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## References

- Academic staff of the National Conference. (2022). Corona Psychopathology and Post-Corona Psychosocial Interventions. *Organization of Psychology and Counseling System of the Islamic Republic of Iran*.
- Akurugu, C.A., Nyuur, R.B., Dery, I. (2023). Non-governmental organizations' approaches to women's empowerment amid the COVID-19 pandemic: Towards decolonizing development praxis in northern Ghana, *World Development Sustainability*, 3, 100079.
- Aleemran, R., and Tabaghchi Akbari, L. (2015). Women's Role in The Development of Financial Markets: Evidence from Iran and Selected Developing Countries. *Woman & Study of Family*, 8(30): 21-33.
- Alipour, A., Ghadami, A., Alipour, Z., Abdollahzadeh, H. (2020). Preliminary validation of the Corona Disease Anxiety Scale (CDAS) in the Iranian sample. *Quarterly Journal of Health Psychology*, 8(32): 163-175.
- Alipour, A., Oraki, M., & Kharaman, A. (2020). Review of the Neurological and Cognitive Effects of the Covid-19. *Journal of Neuropsychology*, 5(4): 135-146.
- Andrew, W. Lo., Dmitry, V. Repin., and Brett, N. Steenbarger. (2005). Fear and Greed in Financial Markets: A Clinical Study of Day-Traders, *American Economic Review*, 95(2): 352–359.
- Bajema K.L., Oster A.M., McGovern O.L. (2020). Persons Evaluated for 2019 Novel Coronavirus, United States, MMWR Morb Mortal Wkly Rep. ePub: February 7. dx.doi.org/10.15585/mmwr.mm6906e 1.
- Barber, B.M., and Odean, T. (2001). Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment, *The Quarterly Journal of Economics*, 1(116): 261-292.
- Blikre, J. (2021). Why women investors outperform men in the long run trader. *Yahoo Finance*, <https://finance.yahoo.com/news/why-women-investors-outperform-men-in-the-long-run-trader-205931074.html?guccounter=1>
- Bose, S., Ladley, D., & Li, X. (2020). The role of hormones in financial markets. *International Review of Financial Analysis*, p. 67.
- Cruea, S.M. (2005). Changing Ideals of Womanhood During the Nineteenth-Century Woman Movement. *General Studies Writing Faculty Publications*, 1: pp. 187–204.
- D'ambrosio, R. (2022). The increased presence of women in stock market trading. [online] <https://gulfbusiness.com/the-increased-presence-of-women-in-stock-market-trading/>

- Delaney, R., Strough, J., Parker, AM., and de Bruin, WB. (2015). Variations in Decision-Making Profiles by Age and Gender: A Cluster-Analytic Approach. *Personality and Individual Differences*, 85: 19–24.
- Dita, R.D.R.T., Heryanah, T. and Basuki, T.I. (2023). Investment Decision-Making Behavior in The Era of Covid-19 Pandemic: An Analysis Based on Mental Accounting, Loss Aversion Bias, and Risk Tolerance, *Holistica Journal of Business and Public Administration*, Vol. 14, Iss. 2, pp.33-42.
- Drake, K. (2021). COVID-19 anxiety syndrome: A pandemic phenomenon? <https://www.medicalnewstoday.com/articles/covid-19-anxiety-syndrome-a-pandemic-phenomenon>
- Ebrahimi Sarv Oliya, M. H., and Sabunchi, A. (2020). The Demographical Factors Role in Explanation of Retail Investors' Financial Risk-Tolerance and Their Risk-Taking Behavior. *Journal of Investment Knowledge*, 8(32), 217-234.
- Eshghi, S. (2020). The position and role of women in investment markets. <https://madresesarmayegozari.ir>
- Fadaei, F. (2021). Mental injuries caused by Corona, Iran Newspaper. <https://www.irannewspaper.ir/Newspaper/Page/7620/10/576191/0>
- Fischhoff, B. (2020). Speaking of Psychology: Coronavirus Anxiety. <https://www.apa.org/research/action/speaking-of-sychology/coronavirus-anxiety>.
- Gholipor, A., Raissifar, K., and Akhavan Anvari, M.R. (2018). Examining the relationship between attachment styles, exploratory behavior, and risk-taking. *Public Administration Perspective*, 9(2), 135-152.
- Harper, E. (2020). Informal cross-border trade for empowerment of women, economic development, and regional integration in Eastern and Southern Africa. *United Nations Conference on Trade and Development(UNCTAD)*.
- Heidary. A. (2019). Choosing a suitable trading strategy. [online] <https://asanbourse.ir/Blog/?p=116>
- <https://iranbourseonline.biz/168159> (Accessed September 2022)
- <https://www.iribnews.ir/fa/print/3201308> (Accessed September 2022)
- <http://www.cmcmarkets.com/en-gb/trading-psychology/male-female-traders> (Accessed November 2022)
- <https://tejaratnews.com/> (Accessed September 2022)
- <https://www.tradingbells.com/blog/why-indian-stock-market-needs-women-investors/> (Accessed November 2022)
- <https://corporatefinanceinstitute.com/resources/wealth-management/risk-averse-definition/> CFI site (Accessed June 2024)

- <https://ndto.com/consider-it-culture-the-dynamics-of-risk-aversion-and-risk-taking/>  
(Accessed June 2024)
- Lawler, J. (2021). What is Position Trading? Positional vs Swing Vs Investing Strategy. *Flow Bank*: <https://www.flowbank.com>
- Li, W., Chen, S., Xiao, Z., Li, D., Lv, C., Zhang, S., Turel, O., and He, Q. (2023). Risk aversion in risk-taking tasks: Combined effects of feedback attributes and cognitive reflection ability. *Brain and behavior*, 13(5), e2957.
- Lieber, R. (2021). Your Money: Women May Be Better Investors Than Men. Let Me Mansplain Why. *The New York Times*. <https://www.nytimes.com/2021/10/29/your-money/women-investing-stocks.html>
- Livani, T., and Solotaroff, J. (2019). Promoting Women's Participation in Cross-border Trade in South Asia. *ANTYAJAA: Indian Journal of Women and Social Change*, 4(1): 9-32.
- Mendez, M. F. (2017). A neurology of the conservative-liberal dimension of political ideology. *The Journal of Neuropsychiatry and Clinical Neurosciences*, 29(2), 86–94.
- Mitchell, C. (2022). What Is Swing Trading? [online] <https://www.investopedia.com>
- Mohammadzadeh, Y., and Yekta, M. (2016). Examining the role of women in the sustainable economic development of the countries of the world. *The first conference on the role of women in community health*, Tehran.
- Molins, F., Sahin, F., & Serrano, M. Á. (2022). The Genetics of Risk Aversion: A Systematic Review. *International journal of environmental research and public health*, 19(21), 14307.
- Niculaescu, C. E., Sangiorgi, I., and Bell, A. R. (2023). Does personal experience with COVID-19 impact investment decisions? Evidence from a survey of US retail investors. *International review of financial analysis*, 88, 102703.
- O'Mahony, P. (2014). Men too hormonal when trading as women produce better returns. [online] [www.irishtimes.com/business/personal-finance/men-too-hormonal-when-trading-as-women-produce-better-returns-1.1677952](http://www.irishtimes.com/business/personal-finance/men-too-hormonal-when-trading-as-women-produce-better-returns-1.1677952)
- Rahimisajasi, M., Shakeri Golpayegani, T., and Kalantari, A. (2022). Women's rights in the middle of Islamic law and Custom: Women's confrontation with challenges of having the right to employment and financial independence. *Journal of Woman and Family Studies*, 10(1), 107-131.
- Rehman, W.u., Saltik, O., Jalil, F. and Degirmen, S. (2024). Viral decisions: unmasking the impact of COVID-19 info and behavioral quirks on investment choices. *Humanit Soc Sci Commun*, 11, 524.
- Sahebdadi, I. (2021). Trading styles and choosing a trading style that suits your personality. [online] <https://moamelegar.com>

- Samadian, M. (2021). The effects of the Covid-19 virus on the brain: the negative effects of Corona on the central nervous system. [online] <https://isbclinic.com/blog/complications-of-covid-19-virus-on-the-brain/>
- Shahyad, S., and Mohammadi, M. (2020). Psychological Impacts of Covid-19 Outbreak on Mental Health Status of Society Individuals: A Narrative Review. *Journal of Military Medicine*, 22(2): 184-192.
- Skonieczna, A., and Castellano, L. (2020). Gender Smart Financing. Investing in and with Women: Opportunities for Europe. *European Commission*.
- Swan, P. (2017). Why women make the best stock traders. <https://theconversation.com/why-women-make-the-best-stock-traders-74081>
- Von Kluge, S. (1992). Trading Accuracy for Speed: Gender Differences on a Stroop Task under Mild Performance Anxiety. *Perceptual and Motor Skills*, 75(2): 651–657.
- Zimmerman, M.E., Hart, J.L., Medrano, P., Piccone, C., Ramirez, D.M., Huggins, L.K., et al. (2023). COVID-19 in the Community: Changes to Women's Mental Health, Financial Security, and Physical Activity. *AJPM Focus*, 2(3), 100095.

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