



The Impact of Overconfidence and Risk Tolerance on Forex Investors Decision-Making

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ABSTRACT

The purpose of this study is to analyze the influence of overconfidence and risk tolerance on forex investors decision making. The research approach used is quantitative research. The population in this study were residents of Morocco, especially those who have knowledge about investment and have invested in the forex market before. Questionnaire survey was used to collect the data by using non probability convenient sampling technique, 121 questionnaires were correctly responded by respondents. The data are analyzed using IBM SPSS Statistics 21 program and Excel for graphical representation. The results indicate a significant positive relationship between overconfidence, risk tolerance and forex investors decision-making.

1. INTRODUCTION

Investment involves deferring immediate consumption in order to allocate resources towards productive assets within a specific timeframe. This main sacrificing present benefits or profits for future gains. Investment can be categorized into two forms: real investment, which includes assets like gold, land, and buildings, and investment in financial assets such as stocks, bonds, and deposits. Each issuer carries different levels of return and risk, making investment choices unique to individual circumstances. Those with stable financial conditions are more likely to be familiar with and seek out investment opportunities. However, in the current era of disruption, there is a growing abundance of information surrounding investment, aimed at enticing individuals to participate in this financial endeavor.

The Foreign Exchange Market (Forex, FX, or Currency market) is a type of exchange that allows for the global, decentralized trading of international currencies. The Forex market is also known as the Foreign Exchange Market. The Forex market is decentralized and known as an "over-the-counter" monetary market. The foreign exchange market is the world's largest and most liquid financial market, (James Chen ,2022).

Because of the complexity and inherent volatility of the Forex market, making decisions is a complex process that is influenced by a range of cognitive and psychological factors. Of these, overconfidence and risk tolerance are two important factors that have attracted a lot of attention lately. This study intends to explore the relationship between overconfidence, risk tolerance, and Forex investors decision-making.

2. LITERATURE REVIEW

2.1 Forex

The global electronic marketplace for trading international currencies and currency derivatives is known as Forex (FX). Unlike traditional markets, Forex has no physical location but is still the largest and most liquid market in the world in terms of trading volume. Every day, trillions of dollars are exchanged in this market. The majority of trading activities take place through banks, brokers, and financial institutions (Cory Mitchell, 2023).

2.1.1 Trading in The Forex Market:

According to (James Chen ,2022), historically, only governments, large corporations, and hedge funds participated in the foreign exchange market. Trading currencies is as simple as a mouse click in today's world, and accessibility is not an issue. Individuals can

open accounts and trade currencies through the platforms of many investment firms. This isn't like going to a currency exchange. There is no physical exchange of money from one hand to another in this process. Rather, traders take a position in a specific currency in the hope of profiting from upward movement and strength in the currency that they're buying (or weakness if they're selling).

2.1.2 Types of Foreign Exchange Market:

There are three separate marketplaces in which forex traders transact in: the spot market, the forward market, and the futures market. In order to determine the optimal time to enter or exit a trade, traders employ a range of analysis methods (H. T. Parekh Marg, 2021).

a. The Spot Market:

Transactions involving currency pairs take place on the spot market. It happens quickly and smoothly. The transactions require immediate payment at the current exchange rate, also known as the spot rate. Traders in the spot market are not exposed to market uncertainty, which can result in an increase or decrease in the price between the agreement and trade.

b. The Futures Market:

In the futures market, transactions involve predetermined exchange rates known as future rates, with payment and distribution occurring at a later date. This formal agreement guarantees that the terms of the transaction remain fixed and cannot be changed. By engaging in these transactions, traders can achieve a reliable return on their assets, making the future market a preferred choice for regular traders.

c. The Forward Market:

The third type of foreign exchange market is the forward market, which is similar to the future market. In this situation, the parties will discuss the terms of the transaction, and the agreed-upon conditions can be amended and updated as needed by the parties involved. The forward market is more flexible than the futures market.

2.1.3 Advantages and Disadvantages of Foreign Exchange Markets:

According to Jana Kane (2023), these are some advantages and disadvantages of Forex trading:

Advantages:

- High liquidity and volume: Because many people and businesses trade in this market, it is simple to buy and sell various money types quickly.
- Operates 24/5: It's open all week, except on weekends, so you can trade almost whenever you want.
- Wide range of currencies: You can trade a variety of different currencies from various countries.
- Low transaction costs: Trading doesn't cost much comparing to other markets.
- Leverage opportunities: With a small amount of money, you can control a large trade, which increases profits but also risks.

Disadvantages:

- High risk of loss: Due to sudden changes in currency values, the foreign exchange market can quickly result in large losses.
- Market volatility: Prices in the foreign exchange market can fluctuate dramatically.
- Complex to understand: It can be difficult to learn about the foreign exchange market. It's like trying to learn a new language with a lot of rules and words that can be difficult to understand.
- Requires significant time: It takes a lot of time to keep up with the foreign exchange market.
- Potential for fraud and scams: Some people in the foreign exchange market try to trick others.

2.2 Overconfidence

Overconfidence causes one to overestimate the securities' true performance. According to economic theories, investors are logical and consider all available information before making a decision, but in reality, there is never enough information available for investors to consider, and they are unable to do so.

(Gede Adiputra, 2021) states that overconfidence behavior frequently results in four mistakes. Initially, when investors become overconfident, they may trade too much because they believe they possess unique knowledge that others do not. Secondly, investors may underestimate risk due to overconfidence. Third, investors who are overconfident may overestimate the value of their investments. Fourth, there's a chance that investors' portfolios lack diversity, which raises the possibility of risk. It is anticipated that investor overconfidence will be influenced by investor demographics such as age, gender, education, and length of investment or experience. According to (Aigbovo O & Ilaboya O.J, 2019), men tend to be more overconfident than women, which makes them more daring when it comes to investing in high-risk products.

In a study conducted by (Anggirani N, 2017), it was found that employees have a higher susceptibility to overconfidence due to their ability to generate income and engage in additional investments. Another research study by (Aini & Lutfi, 2019) suggests that overconfidence can be assessed through various indicators, including familiarity with the forex market, self-assurance in one's

abilities, confidence in achieving higher returns, willingness to pursue fast monetary gains, and possessing a favorable investment track record.

The relationship between investment decision-making and overconfidence has been established. According to (Anggirani N, 2017), the prevalence of overconfident investors outweighs rational ones. This imbalance can lead to a decrease in the average investor's overall utility and result in aggressive trading when an overconfident individual perceives an opportunity. Research conducted by (Gede Adiputra, 2021) supports the notion that overconfidence plays a significant role in shaping investment decisions. Investors who possess a sense of overconfidence in their knowledge tend to be optimistic and capable of effectively managing their portfolio performance. These findings are further supported by (Muhammad Qasim, 2018), who also highlights the positive and substantial impact of overconfidence on forex investors decision-making.

2.3 Risk tolerance

Risk tolerance is the level of an investor's ability to accept investment risk. Fanny t. (2020) asserts that, in addition to understanding one's objectives, financial stability, and time horizon, understanding one's risk tolerance is crucial when making decisions about investments and future financial plans. The same is stated by (Chavali K., & Mohanraj M.P, 2019), who claim that decision-making and reaching financial objectives are significantly influenced by risk tolerance. Risk tolerance can help in understanding an investment's level of risk and enable investors to accept current risks in order to meet their investment goals. Consequently, investors can accept the known risk in light of the potential return on investment. According to Puspitasari D.A. (2018), there are a number of indicators that can be used to determine an individual's level of risk tolerance, including selecting high-risk investments in order to maximize returns, thinking that profits come before security, investing carelessly, and being willing to accept failure on an investment.

Investment decision-making, which is influenced by a number of factors including gender, age, income, education, and prior investing experience, can be impacted by risk tolerance. Risk-takers (investors who are willing to take on financial risk) can risk their assets for large returns, while risk-averse investors (those who would rather incur many losses) would rather receive a meager return. Risk tolerance has a positive and significant impact on investing decision-making, (Aini, & Lutfi, 2019). The study conducted by Gede Adiputra (2021) produced similar results, showing that risk tolerance has a big impact on investors decision-making.

2.4 Conceptual Framework

There are two independent variables and one dependent variable in this study. Overconfidence and risk tolerance are independent variables, but forex investors decision-making is the dependent variable. So this framework can provide research directions. The research studies two necessary factors of forex investors decision-making: Overconfidence and risk tolerance and related hypotheses are following:

H1: Overconfidence influences forex investors decision-making.

H2: Risk Tolerance affects forex investors decision-making.

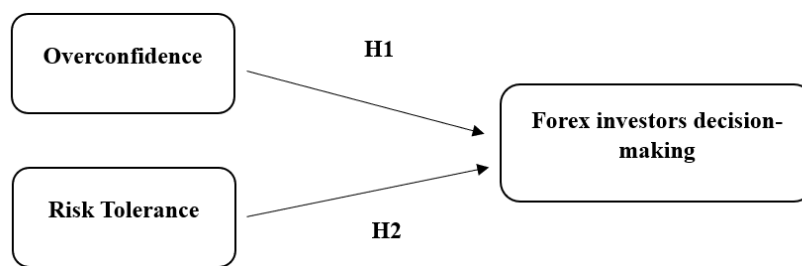


Figure 1. Theoretical Research Framework of the Study.

3. METHODOLOGY AND RESEARCH FINDINGS

The study was based on primary sources by filling out questionnaires. So, for its interpretation graphs and statistical tools have been used in Excel and SPSS program as these statistical methods are the most effective in determining the influence of independent and dependent variables. The questionnaire we designed consists of two parts. The first part is the personal profile of the respondent, including age, gender, revenue , revenue 's source and investment frequency measured on a nominal scale. The second part is the main part of the study which contain 3 dimensions, out of 3, 2 dimensions include independent variables like overconfidence, risk tolerance and last dimension of dependent variable such as decision-making. The second part of the questionnaire contains 11 items and the Likert scale is used for measurement of these items which start from 1 to 5 where 1= strongly agree and 5= strongly disagree.

3.1 Graphical representation

a. Demographic Characteristics of Respondent

The population in this study were residents of Morocco, especially those who have knowledge about investment and have invested in the forex market before. 121 questionnaires were correctly responded by respondents, below given tables clearly explain the demographic characteristics of the respondents.

Table 1. Demographic Characteristics of Respondent

Demographic Characteristics	Frequency	Percentage (%)
Gender		
Male	79	65.3%
Female	42	34.7%
Age		
18-24	34	28.1%
25-30	55	45.5%
>30	32	26.4%
Revenue (USD)		
<500	54	44.6%
500-1000	55	45.5%
>1000	12	9.9%
Revenue's source		
Salary	67	55.4%
Parents	22	18.2%
Other	32	26.4%
Investment Frequency		
1-2 times	54	44.6%
3-5 times	55	45.5%
>5 times	12	9.9%

Based on table 1, it can be seen that there are more male investors (65,3%) than female investors (34,7%). Mostly respondents were between the age group of 25-30 years whose percentage is 45,5%. In terms of income, the largest number is investors with an income level of 500 to 1000 dollar with a percentage of 45,5% while the least number is investors with an income level of > 1000 dollar with a percentage of 9,9%. The sources of income for the majority of investors are salaries, others and pocket money from parents. Based on the frequency of investing, the majority of investors make 3-5 routine transactions every month.

a. Overconfidence and decision-making

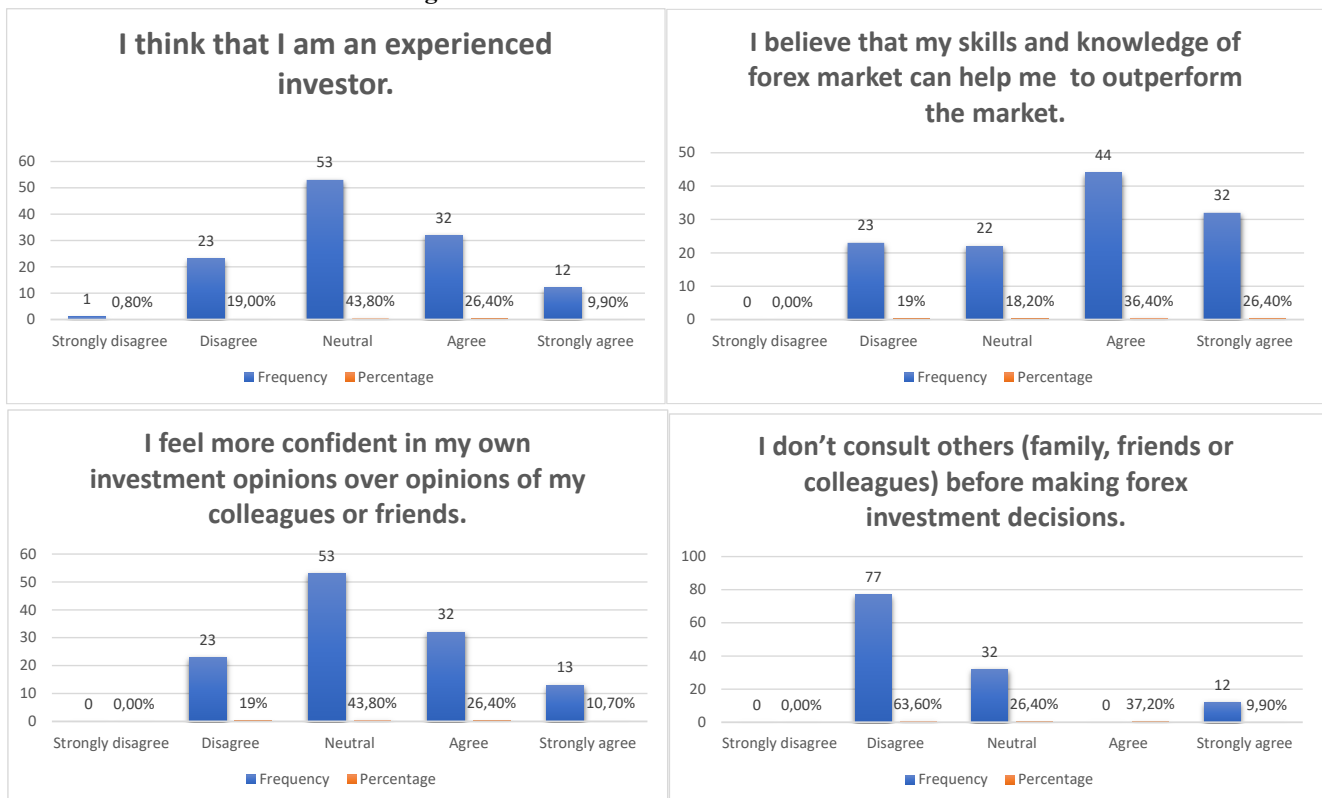


Figure 2. Investor Confidence and decision making

Based on figure 2 results, it can be concluded that there is a notable proportion of participants who consider themselves experienced investors, with 26.4% agreeing and 9.9% strongly agreeing with the statement. However, it is important to note that a significant number of respondents (43.8%) remained neutral, indicating a range of opinions on personal investment experience. Additionally, when it comes to the belief that their skills and knowledge of the forex market can help them outperform the market, 36.4% agreed and 26.4% strongly agreed. This suggests a level of confidence in their abilities. However, the results also revealed that a majority of respondents (63.6%) disagreed with the statement that they don't consult others before making forex investment decisions, indicating that many individuals do seek input from family, friends, or colleagues. These results highlight the presence of varying levels of confidence and decision-making approaches among the forex investors.

b. Risk tolerance and decision-making



Figure 3. Risk tolerance and decision making

Based on figure 3 results, it can be concluded that a significant number of participants (43.8%) are willing to accept short-term losses for potential long-term gains. Additionally, a majority of respondents (46%) expressed discomfort with the possibility of losing money in forex trading, indicating a lower risk tolerance in this area. When it comes to volatility, 36.4% agreed that they are willing to experience it for higher returns. However, it is worth noting that a notable proportion of respondents (27.3%) remained neutral on this statement, suggesting a range of opinions on risk-taking. Finally, the survey revealed that a considerable number of participants (27.3%) are comfortable taking high risks in forex investments.

c. Investment decision making

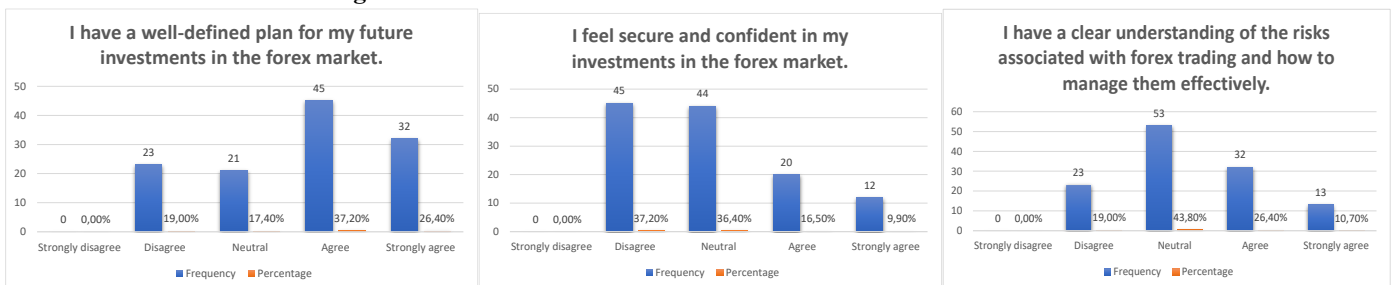


Figure 4. Investment decision making

According to the results funds in figure 4, it can be concluded that a significant number of participants (37.2%) feel insecure or lack confidence in their investments in the forex market. Additionally, a majority of respondents (43.8%) have a neutral understanding

of the risks associated with forex trading and how to manage them effectively. Furthermore, a considerable number of participants (37.2%) have a well-defined plan for their future investments in the forex market. These findings highlight the varying levels of confidence, risk understanding, and future planning among the respondents when it comes to forex investments.

3.2 Statistical traitment

In order to achieve the desired objectives of this study, we used mean and standard deviations to describe the respondents of question. Correlation was used to measure the relationship between the variables.

Table 2. Descriptive statistics

Var	Item No.	Items	Mean		Standard Dev.		Relative importance
			Item	Var	Item	Var	
OC	1	I think that I am an experienced investor.	3.256	3.202	0.909	0.886	Moderate
	2	I believe that my skills and knowledge of forex market can help me to outperform the market.	3.702		1.062		
	3	I feel more confident in my own investment opinions over opinions of my colleagues or friends.	3.289		0.898		
	4	I don't consult others (family, friends or colleagues) before making forex investment decisions.	2.562		0.921		
RT	5	I am willing to accept short-term losses for potential long-term gains.	3.661	3.372	1.013	0.844	Moderate
	6	I am comfortable with the possibility of losing money in forex trading.	2.496		1.184		
	7	I am willing to experience volatility to generate higher returns.	3.719		1.066		
	8	I am comfortable taking high risks in forex investments	3.612		1.075		
ID	9	I feel secure and confident in my investments in the forex market.	2.992	3.331	0.970	0.935	Moderate
	10	I have a clear understanding of the risks associated with forex trading and how to manage them effectively.	3.289		0.898		
	11	I have a well-defined plan for my future investments in the forex market.	3.711		1.060		

Table 2 (Item No.1-4) indicates that the general average of overconfidence was (3.202) with standard deviation (0.612) and moderate relative importance. The item “I believe that my skills and knowledge of forex market can help me to outperform the market.” was first with mean (3.702), while item “I don't consult others (family, friends or colleagues) before making forex investment decisions.” was last with mean (2.562).

Table 2 (Item No.5-8) indicates that the general average of risk tolerance was (3.372) with standard deviation (0.844) and moderate relative importance. The item “I am willing to experience volatility to generate higher returns.” was first with mean (3.719), while item “I am comfortable with the possibility of losing money in forex trading.” was last with mean (2.496).

Table 2 (Item No.9-11) indicates that the general average of investment decision making was (3.331) with standard deviation (0.935) and moderate relative importance. The item “I have a well-defined plan for my future investments in the forex market.” was first with mean (3.711), while item “I feel secure and confident in my investments in the forex market.” was last with mean (2.992).

Table 3. Correlations

		Overconfidence	Risk Tolerance	Investors Decision Making
Overconfidence	P. Correlation	1	,896**	,977**
	Sig. (2-tailed)		,000	,000
	N	121	121	121
Risk Tolerance	P. Correlation	,896**	1	,833**
	Sig. (2-tailed)	,000		,000
	N	121	121	121
Investors Decision Making	P. Correlation	,977**	,833**	1
	Sig. (2-tailed)	,000	,000	
	N	121	121	121

** Correlation is significant at the 0.01 level (2-tailed).

Based on Table 3, Correlation analysis shows that there is a positive connection between overconfidence and investors decision making with the value of 0.977 and 1% significance. Risk tolerance and investors decision making are also positively correlated with each other, the value is 0.833 and significance of 1%.

4. DISCUSSION

This study was conducted to determine how risk tolerance and overconfidence affected the decisions made by forex traders, after all necessary SPSS tests and graphical representation results shows that overconfidence has a significant influence on Investment Decision Making. That means that the more confidence investors have, the more willing they are to choose investments with a higher risk because investors who have overconfidence will be more confident in investment decision-making. That shows that in making decisions, investors are influenced by overconfidence. The majority of respondents in this study consisted of young investors (aged 25-30). Young investors could be affected by overconfidence because young investors have high motivation to study the world of investment. The higher the level of overconfidence, the more confident the investors think that the investment plan will succeed.

Risk Tolerance is a measure of an investor's willingness to accept investment risk and is considered a factor influencing investors in making investment decisions. This study indicates that risk tolerance has a big impact on how investors make investment decisions. As a result, investors will find it easier to make decisions if they can assess their own risk tolerance in relation to different instruments, investment goals, profits, and funds. Risk tolerance is related to emotional factors towards investment decisions. The feeling of investors who are afraid of losses will affect their decisions in determining risk tolerance. Investors should find it easy to determine appropriate risk tolerance if investors have determined risk tolerance based on instruments, investment objectives, profit potential, and investment funds. Therefore, it is very important to understand the loss incurred to get the profit following expectations. That way, investors can adjust the investment portfolio in accordance with the specified risk tolerance. Therefore, investors need to understand the extent of their ability to accept risks in investment decision-making so that the benefits and risks borne are in line with expectations.

5. CONCLUSION AND LIMITATIONS

Based on the results and discussion, the research can be concluded that overconfidence has a significant influence on forex investors decision making. Potentially, overconfidence can cause investors to make investment mistakes. Risk tolerance has a significant influence on investors decision-making; thus, investors need to understand the extent of their ability to accept risks in investment decision-making. The benefits and risks borne are in line with expectations.

Although the results are interesting and confirm previous research, the study has few limitations. Firstly, this present study only focuses on the 121 Moroccan forex investors who responded to our survey, this means that the findings may not be applicable to forex investors from other countries. Additionally, the study may not fully encompass all psychological factors, such as emotional responses, that contribute to decision making in forex trading.

6. SUGGESTIONS

Investors should place a high priority on retaining emotional control, putting effective risk management strategies into practice, and continuing education in order to trade forex successfully. A well-rounded strategy includes diversifying portfolios, establishing reasonable goals, and making sensible use of technology. The key to long-term success in the volatile forex market is regular self-reflection, professional assistance when needed, and flexibility in response to shifting market conditions.

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