

# The effect Feedback information and investment flexibility on myopia loss

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<u>Abstract:</u> Indicate theory of probability (Kahneman& Tversky:1979) that people tend to think the possible outcomes associated with a point specific reference and not the final status .

In addition to that they have a look of loss is different from their perception of profit, as generally care about the potential losses more than potential profits. (Thaler & Benartzi 1995) have merged between the myopic loss averse (MLA) and mental accounting in interpreting the property puzzle.

)Potters & Gneezy1997) have found that a Increased information feedback frequency Has risen size of the bet and vice versa. Thus, the idea of this study was coming from the above experiments in attempting to know whether what the impact on the behaviors of investment strategies in the process of decision-making the information , and feedback frequency effect on the myopic loss averse . aims to know whether there are professional differences between people lead to significant differences in the tendency of myopic loss averse. Finally, it aims to know whether males are more or less inclined to myopic loss averse in the investment decision-making strategy than females. By using the experimental approach, use financial and statistical methods (Mann-Whitney test included) , the study reached to number of conclusions , most important among them: the frequency level impact of information feedback effects on the size of the bet. the size of the bet does not correlated with the adjustment of investment flexibility. the specialists in the field of finance have a relatively less tendency toward myopic loss averse .when comparing women with men, it turns out that they have a great tendency toward myopic loss aversion.

Keywords: Probability theory, Mental Accounting, Feedback to information, flexibility, myopic loss averse.

#### 1. Introduction

I have suggested (Kahneman & Tversky) Probability theory to explain the behavior of people risk strategy, Which was the reason behind the emergence of behavioral finance study, also it lured "a great deal" of interest from other researchers in this study. The first proposed theory (MLA) he is (Benartzi and Thaler (1995)) And based on behavioral financial theory: Probability theory and mental accounting, which Aversion loss and that explain the myopic , These two features of behavioral people as they property as well that explain the puzzle In the US stock market. This study seeks to find out whether the frequency of feedback does not affect the loss of myopic . Testing it empirically "on three communities to determine the frequency of feedback does not affect myopic . Also know whether the level of flexibility of the treatments does not affect the loss of myopic . Do the average bet amount Varies with different society, gender and profession. This required the division of the study into several parts, the first devoted to the methodology while the second reviewed the theoretical side while the third part concerned with the applied side and concluded the study with the most important conclusions and recommendations.

#### 2. LITERATURE REVIEW



Based on empirical observations, Thaler and Johnson (1990) found evidence that initial gains are increased when the risk seeker (Thaler and Johnson ,1990; 644). Intuition of past gains makes loss in the coming period less painful, while previous losses make subsequent losses more meaningful (ie, the pain caused by the loss of a certain amount is greater than the happiness caused by the profit of the same amount) ( )Mattos& Garcia, 2009:5). This phenomenon increases the willingness of people to accept risky bets (house money effect) (Thaler and Johnson, 1990). Many studies have shown that house money effect is a powerful phenomenon, but has little acceptance of the interpretation of its mechanism by researchers. He assumed (Peng el, at., 2013) that the cause of the impact of the source of money invested (the amount of the start) as it was a profit before the investor does not care about it and risk it and the value of potential losses will be psychologically low, but in the case that the source of money is his normal income does not risk it Because his psychological tendency will rise a lot (Peng el, at., 2013: 150). Natural psychological tendency indicates that the pain of losing an amount, be informed by the human soul of the joy of profit the same amount relative to a reference point. This can happen in both risk-free and risky options, according to Amos Tversky and Daniel Tversky and Kahneman [1991]. An example of a case of Aversion loss in risk-free choice is the so-called (Endowment Effect). Kahneman, Knetsch and Thaler [1990].). An example of Aversion loss of risky options is to note that people reject small bets of positive expected value but may also involve losses (Rabin [2000]; Fehr and Goette [2007]; Tom, Fox, Trepel and Poldrack [2007]).

Mental accounting, as noted by her (Kahneman and Tversky, 1984; Thaler, 1985). In the context of financial markets, avoidance of loss suggests that investors are giving more weight to losses than gains, while myopia is a mental accounting mechanism that involves focusing on short-term results rather than on the long-term investment horizon. By combining the two, avoiding loss and mental accounting, they can explain at least part of the puzzle of the property premium (Rützler, et, al., 2013: 1). This connotation has been used to explain why a high premium is demanded with reasonable levels of risk Foreign loss-making decision-makers have preferences for profits and losses relative to the reference point rather than to total wealth, although the tendency for losses is steeper than the profit trend (Amonlirdviman & Carvalho, 2010: 1).

The basis on which mental accounting is described is the function of value. It means the tendency of people to categorize, codify, and evaluate economic results by aggregating assets into any number of irreversible mental calculations (Thaler, 1980: 40). A rational person is never subjected to this kind of psychological process because mental accounting makes people take irrational steps when treating various amounts of money depending on the classification of these funds mentally, for example the way of obtaining such money (work or inheritance or betting or reward) or on The nature of the use of the money (well-being, or other things). The main reason for studying mental accounting is to improve cognition in the psychology of choice (Thaler, 1999: 185). (Kahneman & Tversky1979) presented the theory of choice / probability theory, along with the mental accounting of Thaler 1983, which was a major explanation for the effect of disposal. There are two explanations of mental accounting, the first presented by (Thaler & Shefrin, 1988: 3) and pointed out that people are distributed their wealth mentally in three categories are: 1. Current income 2. Current assets 3. Future income, as the tendency of consumption is greater for current income. The second explanation is concerned with describing how to distinguish between financial decisions that may be assessed jointly or separately (Tversky & Kahenman, 1986: 251). As for maximizing utility, the behavioral model does not assume that rationality can actually occur. This model has shown that maximizing utility can be equivalent to strong assumptions about consumer choices (Debreu, 1959). However, many writers and researchers commented on the fact that the literal interpretation of the theory could not be reasonable. Recent literature in psychology, decision theory, and economics abounded in providing behavioral examples of model maximizing utility (Gilboa, el, at., 2010: 2). The key question in much research for decision-making is how can people integrate their individual choices? He notes that the accumulation of evidence suggests that, in many cases, people use a narrow slice of options, that is, presenting each option individually rather than in the context of the other options they face (Kahneman and Tversky 1984; Thaler 1985; Kahneman and Lovallo 1993). They narrow their choice between narrow bracketing in order to explain important deviations from the predictions of the neoclassical model in various areas such as consumption options (Abeler and Marklein 2010) or investment decisions (Barberis et al. 2006; Benartzi and Thaler 1995; Gneezy and Potters 1997). Even in problems with very simple decisions, narrowing the brackets will lead people to identify alternatives to choose and then choose the best alternative in extreme precision (Rabin and Weizsacker 2009). It means that investors evaluate their portfolios frequently. The



main prediction of the MLA model refers to that desire to invest in risky assets differently than anyone repeats to assess their financial results. Avoiding a loss for investors assessing the results of their investments over short periods of time in equities, and with the stability of other factors, is less attractive because they may face a greater risk of short-term losses than bonds. They are therefore demanding a larger share premium. The high premium on stock returns is to compensate for the avoidance of significant investor loss. This premium is an important incentive for market participants to invest in stocks rather than safer government bonds.

Winnie and Butler (1994) provided a unique summary of the concept of feedback, which information can be confirmed by the person concerned, through the addition and what will be obtained or is information that restructures the memory, whether that information in the field of general knowledge, or the field Cognitive knowledge or beliefs about self or tasks, or tactics or cognitive strategies (Hattie & Timperley 2007: 82). The role that feedback plays is based on the principles of correlative and behavioral theories, which emphasize the fact that a person changes his behavior when he knows the results of his past behavior. Contributes to the consolidation and consolidation of information and thus helps to raise the level of performance (Brinko, 1993:575).

Several issues provide some evidence of the effects of changes in the frequency of feedback and investment flexibility. Flexibility is the emotional and mental response that enables a person to adapt positively to different situations, whether for adaptation to change or to maintain the status quo. It also means the ability of a person to face different situations effectively and how to make the right decision at the right time. High flexibility indicates that people have the freedom and over the length of the investment to determine and frequently to estimate the amounts destined for investment in each round, and predict whether they earn or lose and accumulate profits or losses for previous rounds. Thus, they will receive feedback from recurring information. Low elasticity refers to a restriction on the way in which experimenters are invested so that, for example, experimenters can bet similar amounts once and for every three rounds as in our experience . Benartzi and Thaler also stressed that the "retention period" and the "valuation period" for investors are important factors influencing investment decisions. With risky assets will be even longer and the risk premium is lower. Benartzi and Thaler (1995) put forward the theory of MLA, which attracted remarkable interest. For example, (2000 Barber and Odean) pointed to the tendency of over-confidence on the part of the general investor public, because they exaggerated their confidence in the accuracy of the information, which translates their repeated movements in the stock market. He used (2000 Barber and Odean) statistics on the rate of turnover of shares to reach this inference, and highlighted the behavior of investments, where males increased by 45% in terms of the number of deals concluded, males were much more confident than females. Bliss and Potter (2002) noted that female money managers were more likely to "avoid risk and less exaggerate" confidence than male money managers. In terms of investment performance, they were also "better than male money managers." The Gervais and Odean (2001) exaggeration model asserted that when there are high returns in the overall investment environment, it will prompt some investors to over-trust the accuracy of their information, often Gneezy and Potters (1997) designed a betting experiment that revealed that the amount of bets under high-frequency feeding was smaller than the amount of bets under low-frequency. Haigh and List (2005) conducted a betting experiment on a community of professional clients and college students under the MLA hypothesis and repeated feedback to find out that the amount of avoidance lost by professional dealers was greater than the amount of avoidance by students. the college. The question is, given the many years of professional training and trading experience, will financial professionals be less or more inclined towards MLA compared to other people? Bellemare et al. (2005) also conducted a similar experiment to compare Betting behaviors under repeat feedback and investment flexibility. They chose 135 college students to participate in a 9round computer betting experiment with the same probability and compensation amounts (correct guessing with 1/3 probability, double return and half the bet amount, wrong guessing with 2/3 probability and loss of bet amount only). Blavatskyy and Pogrebna (2010) analyzed individual rather than total selection with a view to retesting previous empirical results. The behavior of the majority of experimenters was not consistent with the MLA hypothesis. Several alternative interpretations of their findings have been discussed, including the Fechner Random Mistake Model and the Financial Asset Pricing Model. The aim



of this study was to establish, through psychological experiments, whether the investment behaviors of Taiwanese investors are linked to the tendency to avoid losing myopia presented in financial literature.

## 3.Method

3-1 Study Problem:

Most people tend to think of the possible consequences associated with a particular point of reference rather than the final status, as well as their perception of loss is different from their view of profit. This is because the psychological nature of humans care more about the pain of loss than on the joy of gain. Accordingly many researchers have tried to case such problems by integrating averse loss with mental accounting.

The argument so far lies in verifying the nature of the effectual relationship between the frequency of feedback (the number of times an investor gets information from his previous investment in terms of the accuracy of his guesses for the right investment options and resulting in profits or losses) and investment flexibility (the ability of the investor to determine and change the amount). Which he wishes to bet on the option he has chosen) and its reflection on loss myopia averse (MLA).

Therefore, the problem of this study revolves around the following main and sub-questions:

The main problem: Does the frequency of feedback feed and investment flexibility affect loss myopia averse by the type of respondents?

Several sub-problems arise from this problem:

1. Does the frequency of information feedback affect the loss of myopia?

2. Does the frequency of feedback affect the average bet amount?

3. Does the level of investment flexibility affect the loss of myopia?

4. Is that the amendment of investment flexibility is able to validate their impact on the amount of the bet?

5. Does the average bet vary by gender (male and female)? Which of them is more inclined to Aversion losing myopia?

6. Is the average amount of the bet varies depending on the type of occupation (graduate students, specialists in the field of finance, and the general public)? Which of them is more inclined to Aversion losing myopia?

7. Does the average bet amount vary according to the type of case (high H vs. low L)?

3.2 Study hypotheses: In light of the study problem, the hypotheses are as follows:

The main hypothesis: The frequency of feedback and investment flexibility does not affect the loss of myopia depending on the type of respondents.

The branching of this hypothesis are several hypotheses sub as follows:

1. The frequency of feedback does not affect the loss of myopia.

2. The frequency of feedback does not affect the average bet amount.

3. The level of flexibility of the treatments does not affect the loss of myopia.

4. The average amount of the bet does not vary according to gender (male and female).

5. The average amount of the bet is not different depending on the type of profession (graduate students, and professionals in the financial and the general public).

6. The average bet amount does not vary depending on the type of case.



#### 3-3 Study Objectives:

1. Review and debate knowledge, analytical and empirical flexibility of investment in the frequency of feedback to Aversion loss of myopia.

2. Comparative experimental testing between different communities of the study in order to determine the extent of variation in the averse loss of myopia according to high-flexibility (H) and low-elastic (L) treatments.

3. Experimental disclosure of the potential differentiation between these three communities in terms of the nature of work and gender in order to determine the fact that they respond to the frequency of feedback with investment flexibility and their impact in Aversion the loss of myopia.

4. Test whether the frequency of the feedback feed affects the amount of the bet and whether there is a difference between the groups of treatments involved.

3-4 The importance of the study: The importance of the study lies in the following:

- 1. The investment decision is an individual decision of the investor and this decision depends on the set of behavioral, psychological and social elements of the investor, so it became important to study and understand his behavior through knowledge and awareness of the behavioral and psychological elements that lead him to make and evaluate the decision, because understanding the behavior of the former experimenter will help to Understand and predict the future movements of the experimenters accurately, and thus will improve their subsequent results.
- 2. The study depends on its intellectual, philosophical and empirical framework on one of the most important modern financial theories, the theory of probability, which changed the economic concept about the theory of utility in the field of interpreting the decisions of investors on the basis of limited rationality of the investor when interpreting the information collected.
- 3. interest in the study of behavioral finance, which does not mean that we will abandon the foundations, principles and assumptions of the traditional theory, but we will start from where they ended the traditionalists with the addition of adjustments and appropriate updates. Investors should take advantage of all kinds of fundamental and technical information and analysis when making a decision without considering their results at all and without looking at the results in a short time frame, but also to consider the possible consequences associated with the final status without ignoring the psychological factors that can affect the rationality of decision making. The investor does not benefit from the previous analysis and does not benefit from the advice of financial advisors and analysts.

#### 3.5 Sample Study

In its experimental aspect, this study seeks to examine the flexibility of investment and the frequency of feedback to Aversion the loss of myopia for each of the disparate groups studied. The study included three groups.

The first group included a sample of graduate students while the second group included a sample of specialized professors, while the third group included a sample of the general public. Samples were chosen intentionally as the age of the subjects included in the sample exceeded 20 years, in addition to the fact that each group included a sample of eight people who are disparate in gender between males and females in order to know the behavioral tendencies reflected in the trading strategies of these groups towards Aversion the loss of myopia.

3.6 Experimental Study Methods and Procedures



To find out whether the trading behaviors expressed by both graduate students, professors and the general public are consistent with the expectations set out by MLA (Aversion losing myopia), pointed out (Haigh and List 2005) In that the sample is divided into groups commensurate with different experimental topics.

The present study experiment included three experimental groups for each case (H, L). Each group included 4 persons subject to the experience of (respondents) and as shown in Table 1 in Appendix (A). The three groups included both the general public and specialized professors and graduate students, all from the University Kerbela - College of Management and Economics. The place of the experiment was in the PhD hall of the Department of Finance and Banking at the University of Karbala - College of Management and Economics. Sit experimenters far away from each other and were not able to communicate with each other so as to ensure the integrity of the experience. Before the experiment, the experimenters told us that it was a real bet test: immediately after the bet (as in Table 1), the profit or loss was settled in cash so that the experimenters' feelings of profit and loss of their bets are effectively generated to ensure the reliability of the trial data. Each experimenter is provided with a betting table (Table 2 in Appendix B: showing identity, group and gender) with a pen to participate in the ball color guessing experiment. Inside the opaque experiment box (approximately 35 cm x 21 cm x 21 cm) there were 6 red, 6 yellow and 6 green plastic balls, respectively (similar in weight, size and texture). At each draw, an assistant pulls the colored ball out of the lottery ball box and then returns it to the box to ensure the same probability for the next round. The experimenter first begins by "recording the amount he wants to bet and the color of the ball that is expected to appear and bet on it, note that the probability of making a correct guess for the color of the ball is 1/3and the probability of wrong guessing 2/3. At each round, the person who was right to guess the color of the ball (the color of the ball which bet match it with the color of the ball drawn) will win an amount twice and half the amount of the original bet, either the owner of the wrong person guessing he will lose his bet amount only. Finally, the exact profit and loss of each bet is calculated based on his bet table.

The average bet amount for each experimenter is then calculated using the general average as well as the standard deviation to determine the dispersion of the average bet amounts. The variance analysis was then used for the Mann-Whitney Test. This test replaces the t-test to compare the averages of two independent samples and uses this test even for very small samples.

#### 3.7 Illustration Experimental aggregates

The experimental groups were divided into two groups according to the type of case and agencies:

First: Team Case H: Experimenters face 9 consecutive rounds of guessing colored balls. First, the experimenters indicate the bet table distributed to each one of the color of the ball that he expects and wants to bet on and fix his bet amount (ranging from 0- \$100), After that, an assistant randomly pulls a colored ball from the lottery box and the result will appear. As part of the bet flexibility test, the experimenter will have a maximum of \$100 to bet on each of the nine rounds. He can decide the amount he wants to bet between \$0 and \$100, and here is the flexibility of the investment, noting that he is betting and potentially right. 1/3 to win and achieve a return of the amount (bet amount \* 2.5) or be mistaken by the probability of 2/3 of the loss and lose the amount of the bet. At each round, the results are announced immediately after all the experimenters prove their bets, round after round and nine rounds.

They know that the worst case they can face in each round is the loss of the full amount of the bet (\$100) and that the best case is to receive \$350 (100 + 2.5 \* 100). Thus, they frequently calculate the results for each upcoming round and predict whether they will lose or gain, accumulate the profits or losses of previous rounds, and thus receive recurring feedback. Finally, based on the bet tables of the experimenters prepared for the calculation of profits and losses, the amount of the prize we should pay is expected.

Second: Case L: The same as Case H, but the only difference is to limit the flexibility of the bet amount of the experimenters, as experimenters in Case L should bet similar amounts (from \$ 0 to \$ 100) once every three rounds in a table. Meaning that the flexibility in determining the amount of investment decreased to three bets from 9 in case H.

After betting for the first three rounds, the assistants announce the results of the first, second and third rounds at once, then the bets will be confirmed again and then the results of the fourth, fifth and sixth



rounds will be announced at once, then the bets will be confirmed and the results of the seventh, eighth and ninth rounds will be announced in one go. That is, the frequency of feedback becomes 3 times instead of 9 times as in case H. But one thing should be noted in the case group L, which is that the results of three rounds at once are announced by one ad, ie a total of three ads instead of nine ads as in Case H. In other words, the difference between H and L is that the first H requires the experimenters to fix their guess for the color of the ball and determine the amount of the bet. The assistants then withdraw a ball in each round and announce the results to the experimenters round the tour. The amount of his investment in the current round, taking advantage of the results of the previous bets that were seen first in the first but under the second case L, The experimenters are required to mark their guesses for three rounds at once and place one equal bet for the three bets. The researchers withdraw three balls at once and compare each ball with the visas of the experimenters to show the error, right, profit and loss once every three rounds. For each round but one feed for every three rounds and the flexibility of investment is also low as the experimenter is obliged to set one bet amount will prove himself to three rounds at once is not adjustable, while the high case would allow the experimenter to adjust the amount of each round bet benefiting Of feedback from previous rounds. All of this is associated with the baseline study variable (MLA).

4. Findings and Discussions

Using the experimental approach and using a number of financial and statistical methods, the mean and standard deviation of the bet amount were calculated for each team in order to test the study hypotheses. This aspect was divided into five parts. The first part included the results of the graduate students' experience according to the two cases (H) (L). The second part includes the results of the experience of the professors specialized according to the two cases (H) (L). The third included the results of the general public experience according to cases (H) (L), and the fourth included analysis of the sample as a whole and by gender for cases (H) (L). The fifth and final part included the analysis of the results of the study and for cases (H) (L) according to the analysis of variance using the Mann-Whitney Test to see if the average bet amount for the totals and under the cases (H) (L) identical "or not. The analysis procedures are as follows:

1- The study samples were coded for the three groups with the following symbols:

- A- group of graduate students was given the symbols (SM) and (SW) as, S symbolizes the student. M refers to male sex, while W refers to female sex. The numbers that were accompanied by the letters indicate the number of the student subject to the experiment and this applies to all groups.
- B- The group of specialists was given the symbols (FM) and (FW) since, F symbolizes the specialist.
- C- The group of specialists was given the symbols (FM) and (FW) since, F symbolizes the specialist.
- D- The average standard deviation calculated as well (average of averages (average year) year and the average standard deviation) through the use of Excel program.

2 - Mann-Whitney Test was conducted for the study groups in order to know the differences and significant differences between the groups and according to the cases (H) (L). This test is used to indicate whether the distribution of groups (or intermediate values) is identical or not.

4.1 Analysis of the results of the test of graduate students according to cases (H) (L):

When analyzing the results of graduate students according to the case (H) for both sexes it was noted that there is a discrepancy or differences in the amounts of investment for male students among them. The average amounts as shown in Table (3) for the experimenter (SM1) (16.67), while for the experimenter (2SM) (57.22). 1SM higher than that of the experimenter.

This indicates that there is a large disparity between the sample students themselves, which is reflected in their different behaviors on investment flexibility and the frequency of feedback as representatives to avoid loss of myopia. This is because the experimenter (1SM) is the biggest trend towards avoiding myopia loss because the average investment amount is much lower than the average investment amount (2SM). It is also noted that the avoidance of loss of myopia is inversely



related to the average investment amount. The lower the average amounts, the more individuals tend to avoid the loss of myopia.

| Experimental Graduate Studies<br>for Males and Females H | Average  | r          |
|--|----------|------------|
| SM1  | 16.66667 | 7.07106781 |
| SM2  | 57.22222 | 15.2297224 |
| SW1  | 49.22222 | 9.28409632 |
| SW2  | 50       | 25         |
| Average averages and deviations                          | 43.27778 | 14.1462216 |

Table (1) Experimental Graduate Studies for Males and Females

When looking at the appendix (1), it is noted that the experimenter (1SM) started with a bet (\$ 10) and suffered a loss in that round resulting in feedback on the subsequent round as a reaction. He was exposed to a loss resulting in an increase of his bet amount to (\$ 30), and if the experimental avoiders do not repeat the evaluation of their investment performance they will be less willing to take the risk. . As for the behavior of (2SM) shows a behavior contrary to the theories, it is noted from the amounts of the bet and the accumulation of profits and losses that it negatively affected his behavior on the investment decision to bet subsequent rounds, as the losses suffered by the experimenter in the first three rounds led him to reduce the amount of his bet in the round Fourth. The amount of his bet in the second round (\$ 60) and because of the information obtained from the first round, he reduced the amount of his bet to (\$ 30) in the third round. In the fourth round, the experimenter made a profit and invested this information in a behavior contrary to what is known, he increased the amount of his bet to (\$ 40) and resulted in a profit, and because of the accumulation of information for previous rounds invested this information to increase the amount of his bet steadily in the fifth round to (\$ 60) ). Thus, the behavior of the experimenter (2SM) contradicts the behavior described in the theory of probability, which states that people are risk averse when dealing with profits and looking for risk when they direct loss. The foregoing confirms that experimenters have a different tendency to avoid losing myopia. When compared to male experimenters with female experimenters for graduate students, it was noted that the average bet for females, as shown in Appendix (4), (\$ 49.6), while the standard deviation was (17.14), both of which were higher than that of male experimenters, the mean and standard deviation Males (36.9) and (11.15), respectively. It means that females have a lower tendency to avoid losing myopia than males. It is also noted that the frequency of feedback has affected the amount of investment and also avoided the loss of myopia. The SW1 began with a bet (45) and her correct bet led her to make a profit on her tour, which led her to reduce the bet in the second round. This behavior is consistent with the theory of probability and the theory of avoiding loss of myopia. In this case, the weighting function reinforced the risk-avoidance behavior towards profits and reduced the riskseeking behavior towards losses. This was achieved by the behavior of the same experimenter (SW1) in the third round. For the risk became the fourth round bet amount (\$ 47). The successful SW2 is noted to have a variation in the amount of the bet and from round to round. In the first round, she started a bet amount of \$ 50, which led her to make a profit. This information influenced her behavior in the investment decision. Increase the amount of investment. These results indicate that the experimenter used the implicit methods of mental accounting by coding their previous results and the effect of repeating the feedback of information through the number of times evaluated transactions in previous rounds. Consequently, the behavior of these two experiments is consistent with the theory of avoiding loss of myopia. The average bet amount for the experimenter (SW1) was (49 \$) and the standard deviation was (9.28), while the average and the



deviation of the bet amount for the second experimental graduate students according to the case (H) reached (\$ 50) (25) respectively. Remarkably, they are from the same sample and from the same case, but there are clear differences between the two experiments. This confirms the rejection of the first sub-hypothesis of the study. When comparing the behavior of male experimenters with that of female experimenters for the case (H) shown in Annex (4) and Figure (2) it is noted that there is a large variation in terms of the average overall bet amount. The average bet amount for female experimenters exceeded that of male experimenters, suggesting that females have a less risk-averse tendency, ie, they are more risk-seeking than male experimenters.



Average of male and female students by status (H)

When comparing these results with the results of case (L) it is noted that the average amount of bets for case (L) was higher than the average amounts of bets case (H) and is consistent with the previous literature and based on the theory of avoiding loss of myopia. This confirms the rejection of the second and third hypotheses of the study.

Regarding the partial results of case (L), these results revealed a discrepancy between the study groups in general and its partial samples in particular. It was noted that there is a disparity between males and females in general and in particular that males and females are different among themselves and this is contrary to the fourth sub-hypothesis of the study and call for rejection. Looking at Table (2) and Figure (3), it is noted that the experimenter (SM3) was taking neutral behavior, that is, he was neither a risk-avoider nor a risk seeker. His investment behavior was unaffected by information from previous rounds, that is, he had no reaction to that information.

Table (2) Experimenters for Graduate Studies for Males and Females

| For male and female L | Averages for male and female L stu | S.D   |
|-----------------------|------------------------------------|-------|
| SM3                   | 100.00                             | 0.00  |
| SM4                   | 63.33                              | 13.23 |
| SW3                   | 23.33                              | 9.01  |
| SW4                   | 46.67                              | 40.93 |
|                       | 58.33                              | 15.79 |

However, his average bet was the highest among all experimenters in both cases. The average bet amounted to (\$ 100) and standard deviation (0), as there are no differences or deviations between them and the arithmetic average and therefore there is no dispersion between the amounts. While the other experienced and the same sample behavior variation compared with (SM3) was the behavior (SM4) researcher for risk.

For example, the amount of his investment in the round (4-5-6) increased to (60 \$) despite losing the bet for the round (1-2-3), and returned and increased the amount of his bet to (80 \$) in the last round (7-8-9) Despite previous loss. These results are consistent with the theory of avoiding myopia loss. It is noted in Figure 3 that the average investment amount of the experimenter (SM4) was lower than the average investment amount of the experimenter (SM3).





Figure (3) Averages for students of the case (L) for males and females

As for the females and according to the case (L) it is noted that there is also a large disparity between them, the experimental (SW3) achieved an average bet amount with a standard deviation (23.33) (9.014), respectively.

The SW4 achieved an average bet with a standard deviation of 46.67 and 40.93 respectively. It is noted that the behavior of the experimenter (SW4) was more risky as the losses led her to raise the amount of her bet to (\$ 100) promised to do so looking for risk and behavior consistent with the behavioral theories.

However, it is somewhat different from these literature because of the attribution of these literature to the characterization of the researcher risk to the male sex, not female, but our current study has proved the opposite.

When comparing the mean and total deviation of males in the two cases (H&L) as in tables (1) and (2) shows that the overall average mean and standard deviation of students according to the case (L) was higher than the case (H), the mean and standard deviation of the case (L) (58.3) (15.8), respectively, and according to the case (H), the average of the average amounts and standard deviation (43.3) (14.2), respectively.

Thus, it is clear that there are clear differences between the two cases, as there are clear differences at the aggregate level of the subgroups and the level of sub-parts, whether male or female, and also the variation exists even within the same sex. For example, as shown in Appendix 4 and according to the two cases (L&H), it is noted that there are clear differences at the gender level, the mean and standard deviation of males according to the case (L) is higher than the case (H) has reached the average and the standard deviation of the case (L) (81.67) (6.6), respectively.

While the case (H) for males, the mean and standard deviation (36.9) (11.2), respectively. The results also showed that the difference was clear in females according to the two cases, but this variation is different here because the results proved that the average mean and standard deviation for female graduate students according to case (H) was higher than case (L). (49.6) (17.14), respectively. According to the case (L), mean and deviation (35) (25), respectively. Emphasizes the rejection of the fourth sub-hypothesis of the study which indicates that there is no variation in gender.

#### 4.2 Analysis of test results of specialists (H) (L)

The results of the experiment conducted by the group of specialists according to case (H) are presented in Table (3) and depicted in Figure (4). The experimenter (FM6) started with a bet (\$ 30) for the first round, The experimenter's guess was identical to the ball picked up by one of the assistants, and this tour led him to make a profit.

It is consistent with the theory of probability. And indeed it happened with the same experimenter in the fifth round. Because the feedback from previous rounds was negative and resulted from accumulated losses, the response was to increase the amount of the bet in the next round (sixth).



In the seventh round, the experimenter wagered the same amount as the sixth round. What confirms that the behavior of this experimenter varies depending on his position in terms of profit or loss. The second experimenter (FM5) was neutral in terms of repetition of feedback and the amount of investment as shown in Appendix 2.

The experimenter started with (\$ 50) and continued with the same behavior and the same amount of bet and all nine rounds, which means that he did not benefit from feedback and did not take its way in influencing the average amount of his bet. Comparing the two experimenters, although they are of the same group and of the same sex, their behavior is mixed.

As for the experimenter (FW5), it is noted that its behavior is risk-averse as it has a greater tendency to avoid losing myopia because it has dealt with relatively small amounts for fear of loss as its average bet (13) and the standard deviation (5%). The lower the amount of the bet, the more loss of myopia is avoided. Comparing her behavior with the other experimental and the same category of specialists, it was observed that the experimenter (FW6) avoided the loss, but the avoidance of loss was different from the experimenter (FW5). The average bet amount was (23.3) with standard deviation (10) as shown in Table (3).

| Specialists for case H of<br>males and females | Averages specialists H males and | D.s  |  |
|--|----------------------------------|------|--|
| FM5  | 50.00                            | 0    |  |
| FM6  | 56.67                            | 35   |  |
| FW5  | 13.33                            | 5    |  |
| FW6  | 23.33                            | 10   |  |
| Specialists for case H of males and females    | 35.83                            | 12.5 |  |

When comparing the behavior of experimenters (males and females), it is noted that females have a greater tendency towards avoiding the loss of myopia compared to the opposite sex, as is evident in the figure (4).



Figure 4 specialists average for males and females case H

From the figure above, the average bet for male specialists was higher than the average bet for females. The average bet for male experimenters, respectively (FM6) (FM5) (56.67) (50), is higher than the average bet for female experimenters, which is (FW6) (FW5) (23.33) (13.33). He points out that males are far more confident than females.

At the level of performance of male specialists were the best performers of female specialists, which is consistent with most of the literature.. When looking at Appendix 5 to compare the general mean and the standard deviation for both sexes, it was observed that the average average bet for males was higher compared to females, with the mean averages for males (53.3) and standard deviation (17.5), while the mean averages for females reached (18.3). Standard deviation (7.5). It indicates that the male tendency to assume greater risk, while the female was a tendency toward avoiding the loss of



myopia. These results indicate that male experimenters used implicit methods of mental accounting by being influenced by more frequent feedback from previous rounds than females. It emphasizes the rejection of the second and fourth hypotheses of the study.

As for the low case (L), the experimenter gets one feedback for every three rounds, and the flexibility of the investment amount obliges him to set one bet amount for the three rounds. It is noted from the results shown in Table (4) that the competent experimenter (FM7) began with a bet (\$ 10).

Upon liquidation of the three rounds resulting from his profit, a positive incentive was paid to increase his bet amount to (\$ 50) in rounds (4-5-6). At the end of the rounds (4-5-6), the achievement of profit in the sixth round in particular was born with a sense of reservation in the last rounds (7-8-9) in order to maintain profits .This means that the behavior of the FM7 varies toward MLA. The risk-averse behavior of male specialists for the current case is similar to that of the highly flexible FM6 experimenter who took the same behavior when dealing with the profits. The results revealed that the mean total and standard deviation of the competent experimenter (FM7) according to the case (L), amounted to (37) with a deviation (20) which is less than the average bet amount (FM6). When looking at the other specialized experimenter of the case (L) (FM8), he took the behavior of the risk finder. When he faced the loss in the second stage of the sixth round. (23 \$) with a standard deviation (5) which is less than the competent experimenter of the same sample. This indicates the variation occurred in the same sample and gender.

| Male and female specialists for the case L  | Specialists L male an | S.D      |
|---|-----------------------|----------|
| FM7   | 36.67                 | 20       |
| FM8   | 23.33                 | 5        |
| FW7   | 50.00                 | 8.660254 |
| FW8   | 50.00                 | 8.660254 |
| The mean and the deviation of the total for | 40.00                 | 10.58013 |
| specialists                                 |                       |          |

Table (4) the results of the case (L) sample specialists

The study also revealed that according to case (L) the results of female specialists, it was noted that the females were identical in their investment behavior because they had the same average bet amount (50) with the same amount of standard deviation (8.66).



Figure (5): Specialized Experiences for Males and Females by Case (L)

Looking at Appendix (2) to case (L), it is noted that the difference in the amount of bet for the two experiments. The FW7 started in the first round (1-2-3) with \$ 60 for the three rounds. And achieved profit "in the third round, and due to the restriction of investment flexibility and limited feedback and the fear of the non-profit during the subsequent rounds led to take a risk-averse behavior in order to preserve its profits and thus in the second phase and rounds (4-5-6 (reduced the amount of its bet to) Over 50 tours (9-8-7).



The experimenter (FW8) took the risk-seeking behavior through the reaction of the previous information, which was negative because of the accumulated losses led to increase the amount of her bet in the remaining stages has bet the first phase and the three rounds (\$ 50), resulting in an increase in the amount bet in the second phase by the reverse counter from the previous nutrition information reaching the remaining stages and bet (\$ 60). This indicates that the experimental (FW8) used implicit methods of mental accounting by giving weight to their previous results and the effect of repetition of information through the number of times the evaluation of transactions in previous rounds.

All these results were consistent with the theory of probability and also in line with previous literature. This confirms the rejection of the second and third sub-hypothesis of the study. When comparing male and female specialists according to the cases (H) (L) and through the results of the mean and standard deviations presented in tables (3 and 4) it was observed that the average amounts according to the case (L) for males and females was higher than the average case (H) for males and females.

This confirms the theory of avoiding the loss of myopia. By examining in table (5) it is noticed that the average total bet amount for specialists under case (H) was (36), while it was (40) in table (6) of the case (L) while the standard deviation of the case (L) was (10.58) (Less than the standard deviation of the case (H) (12.5). The reason is due to the restriction of flexibility on the amount of investment as well as the behavior of individuals who avoid risk when dealing with profit and seeker risk when dealing with loss.

When comparing the behavior of males according to case (H) with (L), it is noticed that males according to case (H) were More risky, the average amounts and standard deviation for them as in Annex (5) to (53.3) (17.5), respectively, While males, according to the case (L), were more avoiding the loss of myopia, the average amounts and standard deviation were (30) (12.5), respectively. When comparing the behavior of females (H) with the case (L), it turns out that according to the case (H), females were more inclined to avoid risk compared with the behavior of females in case (L). The average bet and standard deviation for females according to case (H) was (18.33) (7.5) respectively, whereas female behavior according to case (L) was looking for a higher risk than female behavior in case (H). And the standard deviation of females according to the case (L) by (50) (9), respectively, It leads to the rejection of the fourth and sixth sub-hypothesis of the study.

3-4 Analysis of the general test results for both cases (H) (L):

Table (5) and Figure (6) show that the average amounts for case (H) were mixed. The average bet amount with the standard deviation of the experimenter (GM9) was (46.67) (13.46) on the response. (GM10) (42.22) (10.63929), The results show that there are differences in average amounts with deviations for male experimenters according to the case (H), which indicates that there are clear differences between the sample of the male audience itself, which is reflected on their behavior towards avoiding the loss of myopia by the impact of investment flexibility and the frequency of feedback.

| public (H) male<br>and female | Averages of the public (H) male and female | S.D      |
|-------------------------------|--|----------|
| GM9                           | 46.67                                      | 13.46291 |
| GM10                          | 42.22                                      | 10.63929 |
| GW9                           | 42.78                                      | 8.333333 |
| GW10                          | 21.11                                      | 9.279607 |
|                               | 38.19                                      | 10.42879 |

Table (5) the results of the public for males and females H



When examining in Appendix (3) it is noted that the experimenter (GM9) and according to the case (H) began with a bet (\$ 65) and suffered a loss in that round resulted in information about the next round in reaction, but he reduced the amount of his bet until He reached (\$ 30) in the fourth round. This behavior is contrary to the behavior proposed by behavioral theories. However, he returned in the fifth round and due to feedback and flexibility in determining the amount of the bet and as a result of receiving negative information resulting from the accumulation of the amount of the previous loss has increased in the fifth round the amount of his bet to (35 \$) and also suffered consecutive losses resulting in the adoption of risk-seeking behavior Until the bet amounted to (\$ 65) in the eighth round and embodied that in the ninth round as well, Confirms that his behavior is looking for risks when facing losses and avoid risk when dealing with profits and this is consistent with the MLA literature.

The behavior (GM10) showed behavior similar to the behavior of experienced GM9)) began as behavior contrary to behavioral theories and then moved towards behavioral theories adopting the behavior of the researcher to risk. From the above, the relative symmetry between the behaviors of male experimenters is evident from the public sample of the case (H). As for the mean and standard deviation of the experimenters and according to the case (H) it is noted that the average bet amount of GM9)) was higher than (GM10) were (46.4 \$) (13.5) (42.22) (10.64), respectively. This confirms the rejection of the first and second sub-hypotheses of the study.

When comparing male and female experimenters to the general public, as shown in Appendix 6, there was a discrepancy among them and for the same situation. Respectively, while the overall mean and standard deviation of males was higher than females and reached (44.44) (12.05) respectively. It means that males have a tendency to assume greater risk than girls.

This confirms the rejection of the fourth hypothesis of the study. It is also noted that the frequency of feedback feeds on the amount of investment and avoid the loss of myopia, as the experimenter (GW9) began with a bet (35) led to make a profit in the round, which led to maintain the amount of the bet in the second round.

This experiment continued to follow the avoidance behavior of the loss. The experimenter (GW10) notes that it has a variation in the amount of the bet and from round to round. In the first round, she started a bet (\$ 15) that led her to achieve a loss. The behavior of these two experiments varied and the average bet amount for the experimenter (GW9) was (\$ 42.78) with a standard deviation of (8.33), Whereas the average and bet deviation for the second experiment of the general public (GW10) for the case (H) (\$ 21.1) (9.28), respectively. It is noted that they are from the same sample and from the same case, but there are clear differences between the two experiments.

When comparing the behavior of male experimenters with female experimenters of case (H) and through Annex (6) and Figure (6) it is noted that there is a large variation in terms of the average bet amount, the average amount of bet male experimenters exceeded that of female experimenters as the average and standard deviation of males 44.4) (12.05), respectively, while they were female (31.94) (8.81) respectively. This indicates that males have a greater tendency to avoid losing myopia compared to females and emphasizes the rejection of the second, fourth and fifth hypotheses of the study.



Figure( 6) Average (H) to the public male and female

When comparing these results with the results of case (L) it is noted that the average amount of bets for case (L) was higher than the average amounts of bets case (H), which confirms the rejection of the third and sixth sub-hypotheses of the study and this is consistent with the previous literature based on the theory of avoidance Loss of myopia. As for the partial results of case (L), these results revealed a discrepancy between the study groups. It was noted that there are differences between males and females in general and differences between males themselves and females themselves in particular. Looking at Table (8) and Figure (7), it is noted that the experimenter (GM11) started with a bet amount for rounds (1-2-3) with (\$ 30) and incurred a loss on the amount of his bet, due to the limited frequency of back feeding with the restriction on the elasticity of the sum. For three betting rounds, the experimenter paid to take the risk finder's behavior and started the second stage at \$ 40.

These results are consistent with his theories of behavioral theories and previous literature. As for the experimenter (GM12), he took the neutral behavior, that is, he was neither a risk avoider nor a risk seeker. His investment behavior was unaffected by the feedback from previous rounds, that is, he had no reaction to that information. It was an average bet (\$ 50) and a standard deviation (0). As for the other experimenter and for the same sample, he observed that his behavior is different compared to that of GM11, and that his behavior as a risk finder, and that of GM12, is considered to be neutral. While the mean and standard deviation of females was higher for the high case of experimenter (50.00) (17.72) respectively.

| Experiences of the<br>Public for Males and<br>Females | Averages of the audience (L) male and female | S.D      |
|---|--|----------|
| GM11  | 26.67  | 13.22876 |
| GM12  | 50.00  | 0        |
| GW11  | 53.33  | 22.22049 |
| GW12  | 46.67  | 13.22876 |
| Averages  | 44.17  | 12.1695  |

Table (6): Experiences of the Public for Males and Females



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(Figure 7) averages for the public (L) male and female

With regard to females and according to the case (L) it is also noted that there is a great disparity between them, as the experimenter (GW11) achieved an average bet amount with a standard deviation (53.33) (22.22), respectively. While the experimenter (GW12) achieved an average bet amount with a standard deviation of (46.67) (13.23) respectively. It is confirmed that the behavior of the experimenter (GW11) was more risky due to the greater standard deviation. The first phase made a profit, and due to the low frequency of information and limited investment flexibility, it decided to reduce the amount of its bet as a risk-avoidant.

The behavior of the second experimenter (GW12) counted her behavior as a risk finder because she started the first phase and the third rounds (\$ 50), However, when she lost in the last round of the first stage, she had a negative feedback to the previous information that affected her investment decision, which led her to increase her bet in the second round of the rounds (4-5-6) to (\$ 60).

In the last round of the third phase, the experimenter achieved a profit that led her to reduce the amount of her investment in a manner consistent with the theory of probability. When comparing the results of case (L) in Annex (6) for both males and females, it is noted that the general mean and standard deviation for females is higher than the mean and standard deviation for males were (38.33) (6.6), (50)) (17.72), respectively.

When comparing the results of the two cases (H&L), the average mean and standard deviation of the public according to the case (L) was higher than the case (H), the mean and standard deviation of the case (L) were (44.17) (12.17) respectively, according to the case. (H) was (38.19) (10.42), respectively.

What confirms the existence of clear differences between the two cases and also clear differences in the aggregate level and the level of sub-parts, whether male or female, but that the disparity exists even within the same sex. This confirms the rejection of the sixth sub-hypothesis of the study.

#### 4.3 Total analysis of males and females according to H&L cases:

The results revealed the analysis of male sex according to case H that there are clear differences between male sex itself and the three groups (students, specialists and the general public), as shown in the results shown in Table (7) and depicted in Figure (8).

It is noted that the highest amount of investment was in the sample of specialists according to the case of high flexibility (FMH) averaged averages for male specialists (\$ 53.33), and then followed by the general public (GMH) where the average averages (\$ 44.44), and finally graduate students got SMH males have the least investment (36.94) according to case H.

These results suggest that specialists have a lesser tendency to avoid losing myopia. This trend is due to their high confidence, which led them to confine their choice in narrow brackets through the repetition of previous information and choose the appropriate investment amount under the high flexibility in determining the amount of investment. It is also consistent with most of the previous literature.

Table (7) The three groups of males according to the case H

| case H                                  | The overall mean of the sums f<br>per case H |
|---|--|
| The overall average of the students SMH | 36.94  |
| Overall average of specialists FMH      | 53.33  |
| Average overall audience GMH            | 44.44  |







Figure 8 shows that specialists have a lower tendency to avoid loss of myopia, as confirmed by MLA. However, what distinguishes the current study from the previous studies is that the public showed less tendency towards avoiding the loss of myopia than the group of graduate students, although the group of students are more confident by virtue of their experience in their field, but they have overestimated their confidence, which affected the accuracy of their estimates and strengthened Through feedback information, they thought they had superior ability and a high sense of choice that proved the opposite.

However, according to the female sex of case (H) has shown results quite different from the results of male sex and the same case (H). It is clear from Table (8) and Figure (9) that the investment behaviors of female clients from the group of graduate students (SWH)) consistent with the theory (MLA), but the tendency of students SWH)) towards (MLA) less than the tendency of specialists and the public. This contradicts the fourth and fifth hypotheses of the study.

| case H | The overall mean of the sums for feature the case H |
|--------|---|
| SWH    | 49.61   |
| FWH    | 18.33   |
| GWH    | 31.94   |

Table (8): Total analysis of females according to case H

As shown in Table (8) and Figure (9), it was clear that the average amounts among the female group was the highest (49.61), followed by the overall average of the public, the average amount of the bet (31.94), and finally the total average of FWH (18.33). This was contrary to some previous literature, because most of the literature agreed that specialists are less inclined towards MLA.

However, the current study proved the opposite, due to the excessive confidence of female specialists FWH and the impact on the accuracy of the interpretation of feedback from past actions.



Figure (9): The total average of female amounts for case H



While the total and high case groups (H), Figure (9) shows the differences between the groups among them and with other groups, which confirms the rejection of the fifth sub-hypothesis of the study. According to the case (L) the results revealed that there are clear differences between male sex of the three groups. The results presented in Table 9 and illustrated in Figure 10 revealed that there are clear differences between the three groups.

It is noted that the highest amount of investment was in the sample of graduate students (SML) average averages for male students (\$ 81.67) and then followed by the general public (GML) (\$ 38.33), and the last specialists FML (30.00). These findings confirm that students have a lower tendency to avoid losing myopia. These results confirmed the rejection of the hypothesis of the fifth sub-study.

Table (9) total analysis of the total groups of males according to the case L

| case L | total analysis of the total groups of males acc<br>the case L |
|--------|---|
| SML    | 81.67   |
| FML    | 30.00   |
| GML    | 38.33   |

It is clear from Figure 10 that the overall average of students was the highest, followed by the general public and last specialists.



Figure (10): The total average amounts for males for case L

According to the female sex of case (L), the results were completely different from the results of male sex and the same case (L), as shown in Table (10) and Figure (11). Investment behaviors were the same for female dealers from FWL) and the general public (GWL). The average bet was \$ 50, which is consistent with MLA theory, but the students' tendency towards MLA was greater than the tendency of specialists and the public. Average (SWL) (\$ 35).

Table (10) Total Analysis of Total Female Groups by Case

| Case L | Total Female Groups by Case L |  |
|--------|-------------------------------|--|
| SWL    | 35                            |  |
| FWL    | 50                            |  |
| GWL    | 50                            |  |





Figure (11): Total Average Amounts of Females for Treatment L

The total groups and case (H) Figure (12) shows the disparity of groups among themselves and with other groups and both sexes, which confirms the rejection of the hypotheses of the fourth and fifth sub-study.



Figure (12) Average Amounts for Case H

In terms of the aggregate groups and for the low-elastic case (L), Figure 13 shows the variation of the groups among themselves and with the other groups, which confirms the rejection of the hypotheses of the fourth and fifth sub-study.



Figure (13) Average Amounts for Case L

4-5 Statistical Analysis

Analysis of variance Mann - Whitney Test for H&L study groups:

The present study seeks to find out the fact that the different groups studied respond to different levels of repetitive feedback and investment flexibility in order to compare with the results of previous literature and to verify whether there are significant differences between them. The analysis of variance between the three study groups (graduate students, professors and the general public) was



used according to the two cases through the Mann - Whitney Test and the results are shown in Table (11).

Table (11) Mann-Whitney Test Analysis of the totals as a whole for H&L

| Test Statistics <sup>b</sup>     |                   |  |
|----------------------------------|-------------------|--|
|                                  | average           |  |
| Mann-Whitney U                   | 55.000            |  |
| Wilcoxon W                       | 133.000           |  |
| Z                                | 988-              |  |
| Asymp. Sig. (2-tailed)           | .323              |  |
| Exact Sig. [2*(1-tailed Sig.)]   | .347 <sup>a</sup> |  |
|                                  |                   |  |
| a. Not corrected for ties.       |                   |  |
| b. Grouping Variable: processors |                   |  |

Data from Table (11) indicate that the coefficient (Z) of the standard score was negative (-988) with an approximate moral level.

The level of significance (347.0), which is greater than the significance level (0.05), indicates a mismatch between the three groups according to the high and low cases. This indicates the rejection of the fourth, fifth and sixth hypotheses of the study. Below is a test for each group separately.

Analysis of variance with the Mann-Whitney test for postgraduate students according to the two cases: Table 12 presents the results of this test.

| Test Statistics <sup>b</sup>   |          |
|--------------------------------|----------|
|                                | students |
| Mann-Whitney U                 | 6.000    |
| Wilcoxon W                     | 16.000   |
| Z                              | 577-     |
| Asymp. Sig. (2-tailed)         | .564     |
| Exact Sig. [2*(1-tailed Sig.)] | .686ª    |
| a. Not corrected for ties.     |          |
| b. Grouping Variable: CASES    |          |

Table (12) Mann-Whitney Test Variance Analysis

The data of table (21) indicate that the coefficient (Z) of the standard score is negative (.577-) and with an approximate significant moral level (.564) and an accurate moral level (.686) which is greater than the level of significance (0.05). A match between the group of graduate students and according to the high and low cases. It refers to the rejection of the sixth sub-hypothesis of the study. Analysis of variance by (Mann-Whitney) test for professors according to the two cases H&L Table 13 shows the results of this test.

2.

1.

Table (13) Mann - Whitney Test Variance Analysis for H&L Specialists

| Test Statistics <sup>b</sup>   |             |
|--------------------------------|-------------|
|                                | Specialists |
| Mann-Whitney U                 | 7.500       |
| Wilcoxon W                     | 17.500      |
| Z                              | 149-        |
| Asymp. Sig. (2-tailed)         | .882        |
| Exact Sig. [2*(1-tailed Sig.)] | .886ª       |



#### a. Not corrected for ties.

#### b. Grouping Variable: CASES

The data of table (13) indicate that the coefficient (Z) of the standard score is negative (.149) and with an approximate significant moral level (.882) and an accurate moral level (.886) which is greater than the level of significance (0.05) which indicates the absence of A match between the two groups of professors in accordance with the high and low cases, and emphasizes the rejection of the sixth sub-hypothesis.

3. Mann-Whitney variance analysis for the general public of H&L

Table (14) presents the results of this test

Table (14) Mann - Whitney Test Variance Analysis for the General Public by H&L

| Test Statistics <sup>b</sup>   |                   |
|--------------------------------|-------------------|
|                                | Public            |
| Mann-Whitney U                 | 3.500             |
| Wilcoxon W                     | 13.500            |
| Z                              | -1.307-           |
| Asymp. Sig. (2-tailed)         | .191              |
| Exact Sig. [2*(1-tailed Sig.)] | .200 <sup>a</sup> |
|                                |                   |
| a. Not corrected for ties.     |                   |

#### b. Grouping Variable: CASES

The data of table (14) indicate that the coefficient (Z) of the standard score is negative (.1.307) and has a significant approximate moral level. Match between the general public and high and low. This means rejecting the sixth hypothesis.

The six hypotheses of the study were rejected. This confirms the necessity of rejecting the main hypothesis of the study. This is consistent with the previous literature.



## 2. Conclusion

The study showed that the frequency of feedback feed affects the avoidance of loss of nearsightedness. It was observed that females had a greater tendency to avoid losing myopia, while males had a greater tendency. This difference was evident among them both at the level of treatments and at the level of gender. The frequency of feedback will affect the average amount of the bet. From the results shown in the treatments it was observed that the average amounts of bets for the treatments vary among them. As the male tendency to assume greater risk, while the tendency of females was higher in the myopia to avoid loss. These results indicate that the male experimenters used implicit methods of mental accounting by coding their previous results by the effect of repeating the information on the number of times the attempts to evaluate previous rounds better than females.

The results confirmed that the level of frequency of feedback varies according to the type of profession (students, specialists, general public) and this is consistent with the results of previous studies, but the difference of our study from previous studies is the results of averages that the public is less inclined to avoid loss of myopia From the graduate student community, although the student community is more confident by virtue of their experience in their field of specialization, they have exaggerated their confidence, which influenced the accuracy of the information and determined through feedback. He believed that they have a superior ability and high sense of choice, the results proved otherwise.

The analysis of variance according to the Mann-Whitney test of the H&L study communities showed no correlation between the three communities and the high and low elasticity. It indicates that there is no correlation between the three communities and in both cases high and low flexibility. However, the disagreement between the two cases and the three communities was different among them. However, as mentioned earlier, there was no correlation between H&L cases, but the effect was less common among the general public and less compared to specialists and graduate students.

The study recommended that attention be given to the impact of the frequency of information feedback and investment flexibility in strategic investment decision-making behaviors. They are key representatives to avoid loss of myopia. While flexibility reflects the impact of the behavior of adjusting the amount of investment on myopia.

Investors should try to review their performance by evaluating the performance of their achievements and identifying needs and observations for development. These come in two different forms: using positive feedback to maintain performance or to enhance good performance. Use constructive feedback, ie, develop feedback to correct unsatisfactory performance or to improve average performance.

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#### Appendix A

| Status type        | H . status | L .Status |
|--------------------|------------|-----------|
| general public     | 4          | 4         |
| Graduate students  | 4          | 4         |
| Finance professors | 4          | 4         |

<sup>•</sup>Case H: High frequency feed and high elastic betting method

Case L: Low frequency feed and low flex bet

The number of experimenters in each group for each case is 4, divided equally by sex, 2 males and 2 females.

#### Appendix B

#### Table (2) bet table

| Status, identity and gender |                    |                     |                     |         |  |  |  |  |
|-----------------------------|--------------------|---------------------|---------------------|---------|--|--|--|--|
| Case H 🗆 N                  | ame:               | general public 🛛    |                     |         |  |  |  |  |
| Case L 🛛                    | Gender:            | Graduate students 🛛 | ]                   |         |  |  |  |  |
|                             |                    |                     | Specialists finance | 2       |  |  |  |  |
|                             | betting ball color | bet amount          | profit/loss         | Results |  |  |  |  |
| round 1                     | red/yellow/green   |                     | winner/loser        |         |  |  |  |  |
| Round 2                     | red/yellow/green   |                     | winner/loser        |         |  |  |  |  |
| Round 3                     | red/yellow/green   |                     | winner/loser        |         |  |  |  |  |
| Round 4                     | red/yellow/green   |                     | winner/loser        |         |  |  |  |  |
| Round 5                     | red/yellow/green   |                     | winner/loser        |         |  |  |  |  |
| Round 6                     | red/yellow/green   |                     | winner/loser        |         |  |  |  |  |



| Round 7 | red/yellow/green   | winner/loser      |  |
|---------|--------------------|-------------------|--|
| Round 8 | red/yellow/green   | winner/loser      |  |
| Round 9 | red/yellow/green   | winner/loser      |  |
|         | Average bet amount | Total Profit/Loss |  |

#### Appendix 1: Tour Amounts for H&L Experiences

| rankin<br>g | Averag<br>e | ninth<br>roun<br>d | Eight<br>h<br>roun<br>d | Seventh<br>round | Sixth<br>round | Fifth<br>round | Fourt<br>h<br>round | third<br>round | secon<br>d<br>round | first<br>round | cases | Experience<br>s |
|-------------|-------------|--------------------|-------------------------|------------------|----------------|----------------|---------------------|----------------|---------------------|----------------|-------|-----------------|
| 1           | 16.67       | 10                 | 10                      | 10               | 20             | 20             | 20                  | 30             | 20                  | 10             | Н     | SM1             |
| 6           | 57.22       | 60                 | 70                      | 65               | 80             | 60             | 40                  | 30             | 60                  | 50             | Н     | SM2             |
| 4           | 49.22       | 61                 | 46                      | 49               | 53             | 65             | 47                  | 35             | 42                  | 45             | Н     | SW1             |
| 5           | 50.00       | 50                 | 25                      | 25               | 50             | 100            | 75                  | 50             | 25                  | 50             | Н     | SW2             |
| 8           | 100.00      | 100                | 100                     | 100              | 100            | 100            | 100                 | 100            | 100                 | 100            | L     | SM3             |
| 7           | 63.33       | 80                 | 80                      | 80               | 60             | 60             | 60                  | 50             | 50                  | 50             | L     | SM4             |
| 2           | 23.33       | 20                 | 20                      | 20               | 15             | 15             | 15                  | 35             | 35                  | 35             | L     | SW3             |
| 3           | 46.67       | 100                | 100                     | 100              | 10             | 10             | 10                  | 30             | 30                  | 30             | L     | SW4             |

#### Appendix 2 Tour Amounts for H&L Specialists

| Corrected ranking | ranking | Average | ninth<br>round | Eighth<br>round | Seventh<br>round | Sixth<br>round | Fifth<br>round | Fourth<br>round | third<br>round | second<br>round | first<br>round | cases | Specialists |
|-------------------|---------|---------|----------------|-----------------|------------------|----------------|----------------|-----------------|----------------|-----------------|----------------|-------|-------------|
| 6.7               | 5       | 50.00   | 50             | 50              | 50               | 50             | 50             | 50              | 50             | 50              | 50             | н     | FM5         |
| 6                 | 6       | 56.67   | 100            | 50              | 100              | 100            | 60             | 30              | 20             | 20              | 30             | н     | FM6         |
| 1                 | 1       | 13.33   | 15             | 10              | 10               | 15             | 20             | 20              | 15             | 10              | 5              | н     | FW5         |
| 2.5               | 2       | 23.33   | 20             | 20              | 20               | 20             | 20             | 20              | 20             | 20              | 50             | н     | FW6         |
| 4                 | 4       | 36.67   | 50             | 50              | 50               | 50             | 50             | 50              | 10             | 10              | 10             | L     | FM7         |
| 2.5               | 3       | 23.33   | 30             | 30              | 30               | 20             | 20             | 20              | 20             | 20              | 20             | L     | FM8         |
| 6.7               | 7       | 50.00   | 40             | 40              | 40               | 50             | 50             | 50              | 60             | 60              | 60             | L     | FW7         |
| 6.7               | 8       | 50.00   | 40             | 40              | 40               | 60             | 60             | 60              | 50             | 50              | 50             | L     | FW8         |

#### Appendix 3 Tour Amounts to the General Audience for both cases (H&L)

| Corrected ranking | ranking | Average | ninth<br>round | Eighth<br>round | Seventh<br>round | Sixth<br>round | Fifth<br>round | Fourth<br>round | third<br>round | second<br>round | first<br>round | cases | General<br>Audience |
|-------------------|---------|---------|----------------|-----------------|------------------|----------------|----------------|-----------------|----------------|-----------------|----------------|-------|---------------------|
| 5.5               | 5       | 46.67   | 55             | 65              | 40               | 35             | 35             | 30              | 40             | 55              | 65             | н     | GM9                 |
| 3                 | 3       | 42.22   | 20             | 50              | 40               | 50             | 40             | 35              | 55             | 50              | 40             | н     | GM10                |
| 4                 | 4       | 42.78   | 55             | 55              | 45               | 45             | 45             | 35              | 35             | 35              | 35             | н     | GW9                 |
| 1                 | 1       | 21.11   | 30             | 30              | 25               | 30             | 25             | 20              | 10             | 5               | 15             | н     | GW10                |
| 2                 | 2       | 26.67   | 10             | 10              | 10               | 40             | 40             | 40              | 30             | 30              | 30             | L     | GM11                |
| 7                 | 7       | 50.00   | 50             | 50              | 50               | 50             | 50             | 50              | 50             | 50              | 50             | L     | GM12                |
| 8                 | 8       | 53.33   | 25             | 25              | 25               | 60             | 60             | 60              | 75             | 75              | 75             | L     | GW11                |
| 5.5               | 6       | 46.67   | 30             | 30              | 30               | 60             | 60             | 60              | 50             | 50              | 50             | L     | GW12                |

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| S.D   | Average | Females H | S.D   | Average | H Males |
|-------|---------|-----------|-------|---------|---------|
| 9.28  | 49.22   | SW1       | 7.07  | 16.67   | SM1     |
| 25.00 | 50.00   | SW2       | 15.23 | 57.22   | SM2     |
| 17.14 | 49.61   |           | 11.15 | 36.94   |         |
| S.D   | Average | Females L | S.D   | Average | L Males |
| 9.01  | 23.33   | SW3       | 0.00  | 100.00  | SM3     |
| 40.93 | 46.67   | SW4       | 13.23 | 63.33   | SM4     |
| 24.97 | 35.00   | Average   | 6.61  | 81.67   | Average |

Appendix (4) Average bet amounts for males and females for postgraduate students according to both cases

Appendix (5) Average Betting Amounts for Males and Females for Specialized Professors according to both cases

| S.D   | Average | H Females | S.D   | Average | H Males |
|-------|---------|-----------|-------|---------|---------|
| 5.00  | 13.33   | FW5       | 0.00  | 50.00   | FM5     |
| 10.00 | 23.33   | FW6       | 35.00 | 56.67   | FM6     |
| 7.50  | 18.33   | Average   | 17.50 | 53.33   | Average |
| S.D   | Average | L Females | S.D   | Average | L Males |
| 8.66  | 50.00   | FW7       | 20.00 | 36.67   | FM7     |
| 8.66  | 50.00   | FW8       | 5.00  | 23.33   | FM8     |
| 8.66  | 50.00   | Average   | 12.50 | 30.00   | Average |

Appendix (6) Average bet amount for males and females to the general public according to the two cases

| S.D      | Average | H Females | S.D      | Average | H Males |
|----------|---------|-----------|----------|---------|---------|
| 8.333333 | 42.78   | GW9       | 13.46291 | 46.67   | GM9     |
| 9.279607 | 21.11   | GW10      | 10.63929 | 42.22   | GM10    |
| 8.80647  | 31.94   | Average   | 12.0511  | 44.44   | Average |
| S.D      | Average | L Females | S.D      | Average | L Males |
| 22.22049 | 53.33   | GW11      | 13.22876 | 26.67   | GM11    |
| 13.22876 | 46.67   | GW12      | 0        | 50.00   | GM12    |
| 17.72462 | 50.00   | Average   | 6.614378 | 38.33   | Average |

Appendices (7) Mann and Whitney input processing requirements for H&L graduate students

| cases | Ν | Mean Rank | Sum of Ranks |
|-------|---|-----------|--------------|
| Н     | 4 | 5         | 16           |
| L     | 4 | 5         | 20           |
| Total | 8 |           |              |

Appendices (8) Requirements for the processing of MAN and TINY inputs for H&L specialists

| cases | Ν | Mean Rank | Sum of Ranks |
|-------|---|-----------|--------------|
|       |   |           |              |



| 1.00  | 4 | 4.38 | 17.50 |
|-------|---|------|-------|
| 2.00  | 4 | 4.63 | 18.50 |
| Total | 8 |      |       |

Annex 9 Requirements for Man and Whitney input processing for the general public for H&L

#### **Mann-Whitney Test**

| cases | Ν | Mean Rank | Sum of Ranks |
|-------|---|-----------|--------------|
| 1.00  | 4 | 3.38      | 13.50        |
| 2.00  | 4 | 5.63      | 22.50        |
| Total | 8 |           |              |

Annex 10 Requirements for Man and Ten inputs for all communities and for H&L cases

| cases | Ν  | Mean Rank | Sum of Ranks |
|-------|----|-----------|--------------|
| н     | 12 | 11.08     | 133.00       |
| L     | 12 | 13.92     |              |