Asian Journal of Economics and Empirical Research
Vol. 13, No. 2, 42-55, 2026
ISSN(E) 2409-2622 / ISSN(P) 2518-010X
DOI: 10.20448/ajeer.v13i2.9152

Confidence under pressure: Between self-assurance, doubt, and reconstruction among novice investors in a stock market simulation

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Abstract

This study examines how confidence develops, weakens, and is reconstructed among novice investors during a stock market simulation. The study adopts a qualitative and exploratory approach based on fifteen semi-structured interviews conducted after a four-hour stock market simulation involving novice investors. Thematic analysis was used to reconstruct confidence trajectories and compare participants' reactions to uncertainty, gains, losses, and rankings. Initial confidence ranged from exploratory curiosity and confidence based on preparation to doubt associated with limited experience. Early gains and favorable rankings often reinforced participants' perceived competence, sometimes encouraging excessive risk-taking. Losses were associated with stress, frustration, doubt, and a reduced sense of control. Three forms of confidence reconstruction emerged: adaptive reconstruction through learning and decision adjustment, compensatory reconstruction through attempts to recover losses, and defensive reconstruction through withdrawal or reduced risk exposure. Confidence among novice investors is an affective, cognitive, and temporal process that is continuously revised in response to feedback. Financial education and simulation-based training should help novices interpret gains and losses, calibrate confidence, and distinguish reflective learning from emotionally driven recovery behavior.

Keywords: Confidence reconstruction, Confidence, Financial decision-making, Gains and losses, Novice investors, Stock market simulation.
JEL Classification: G41; D91; G11.

Citation | Finet, A., Kristoforidis, K., & Laznicka, J. (2026). Confidence under pressure: Between self-assurance, doubt, and reconstruction among novice investors in a stock market simulation. *Asian Journal of Economics and Empirical Research*, *13*(2), 42–55. 10.20448/ajeer.v13i2.9152
History:
Received: 2 July 2026
Revised: 5 August 2026
Accepted: 10 August 2026
Published: 14 August 2026

Publisher: Asian Online Journal Publishing Group

Funding: This research was funded by the Walloon-Brussels Federation (Belgium) through a Concerted Research Action (Grant Number: ARC-25/29 UMONS5).
Institutional Review Board Statement: Not applicable.
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

Contents

Contribution of this paper to the literature

This study extends behavioral finance research by conceptualizing novice investors' confidence as a dynamic process that evolves throughout the investment experience. It identifies three distinct reconstruction trajectories (adaptive, compensatory, and defensive) and shows how confidence is reshaped by gains, losses, emotional reactions, and performance feedback during a stock market simulation.

1. Introduction

The financial decisions of investors are frequently analyzed in terms of behavioral biases and emotions. Since Kahneman and Tversky (1979) behavioral finance research has shown that investment decisions are influenced by loss aversion and judgment biases. From this perspective, confidence plays an important role, particularly through the concept of overconfidence, which is associated with an overestimation of one's abilities and an underestimation of risk. Barber and Odean (2001) have shown that the most confident investors tend to trade more frequently, with adverse effects on performance. Similarly, Gervais and Odean (2001) analyze overconfidence as a learning process in which investors attribute their successes too strongly to their abilities.

This interpretation tends to view confidence as a disposition that precedes decision-making. In a financial situation, confidence can develop gradually, strengthen after a gain, weaken following a loss, and then be restored through learning or attempts to recover losses. Glaser and Weber (2007) suggest distinguishing between different forms of financial confidence: confidence in one's own knowledge, confidence in one's predictions, and confidence in one's ability to outperform others.

This article extends this perspective by examining the multidimensional nature of confidence through an analysis of fifteen semi-structured interviews conducted after a four-hour stock market simulation. In this experiment, participants were placed in a simulated financial decision-making environment designed to generate emotional engagement through a ranking system and academic incentives. From this perspective, the simulation can be understood as an experiential learning situation, as defined by Kolb (1984) in which individuals construct meaning from an experience and reinterpret it through a phase of reflection.

The interviews indicate that participants often enter the simulation with a sense of confidence, although this confidence remains fragile. Early gains may strengthen it, whereas losses or difficulty interpreting market movements can quickly undermine it.

The research question guiding this article is as follows: How does confidence evolve among novice investors during a stock market simulation?

This article makes three contributions. First, it shows that confidence among novice investors evolves throughout the experience and remains sensitive to performance outcomes. Second, it identifies a three-stage trajectory in which initial confidence is challenged by losses and subsequently reconstructed. Third, it distinguishes three reconstruction paths: an adaptive path based on learning and decision adjustment, a compensatory path driven by attempts to recover losses, and a defensive path characterized by reduced risk exposure.

2. Theoretical Framework

2.1. Confidence in Financial Decision-Making

Confidence refers to how individuals assess their ability to understand a situation and decide under uncertainty. Literature has often addressed this issue through the concept of overconfidence. From this perspective, confidence becomes problematic when it results in overestimating knowledge or ability to manage risk. Inghelbrecht and Tedde (2024) confirm the importance of this approach by showing that overconfidence is associated with more frequent trading activity and poorer performance. However, confidence can play an essential role in enabling action, particularly when individuals must make decisions under uncertainty.

Three dimensions of confidence should be distinguished (Fleming & Daw, 2017; Grimaldi, Lau, & Basso, 2015). The first is self-confidence, which refers to an individual's perceived ability to make decisions. The second is confidence in one's judgment, denoting the impression that choices are well-founded. The third is situational confidence, which corresponds to the feeling that the environment is sufficiently understandable to allow for decision-making.

This distinction helps explain why confidence cannot be reduced to objective knowledge. Cupák, Fessler, Hsu, and Paradowski (2022) show that investors' confidence in their own abilities and financial literacy contribute to investment in risky assets. Their analysis highlights that a lack of confidence can act as a barrier to investment, even when financial knowledge is present. Conversely, Bazley, Bonaparte, and Korniotis (2021) show that financial behavior depends on individuals' perceptions of their knowledge. The gap between what individuals know and what they think they know becomes central to understanding decision-making.

Financial confidence can therefore be understood as the perceived ability to make decisions under uncertainty. It is shaped by individuals' knowledge, their assessment of that knowledge and their confidence in their ability to participate in financial decision-making. This perspective distinguishes informed confidence, which facilitates action, from overconfidence, which involves an excessive assessment of one's abilities.

2.2. The Confidence of Novice Investors: Between Curiosity, Doubt, and the Illusion of Simplicity

Novice investors have not yet accumulated enough experience to form stable financial judgments. Their decision-making reflects a tension between curiosity and the desire to learn, on the one hand, and caution, fear of error, and simplified perceptions of market functioning, on the other. Their confidence therefore remains vulnerable because it rests on incomplete knowledge and a limited capacity to assess the quality of their decisions.

Research on financial literacy helps clarify this issue. Financial decision-making depends on individuals' sense of being able to understand a financial situation and on their risk tolerance. Gerrans, Hoffmann, McNair, and Pallant (2025) emphasize that financial education should be assessed across multiple dimensions rather than solely in terms of measurable knowledge. Similarly, Ansari, Albarrak, Sherfudeen, and Aman (2023) show that the relationship between financial literacy, individual characteristics, and confidence is complex, as it depends on the subjective

perception of financial expertise. Merter and Balcıoğlu (2025) also highlight the potential gaps between financial knowledge and the actual ability to make good decisions.

Our research suggests that confidence among novice investors is still developing and reflects gaps between actual knowledge, perceived knowledge, and the ability to act. It depends on how individuals assess what they know, what they believe they know, and what they feel capable of doing under uncertainty. From this perspective, confidence may take three main forms. It is exploratory when individuals lack experience but remain motivated to learn, anticipatory when they expect to succeed before testing their abilities and cautious when they recognize their limited knowledge and adopt a more risk-averse approach. Such caution may reflect a form of novice awareness in an uncertain environment. Initial confidence can therefore encourage engagement in financial decision-making, but it may also become misplaced when it rests on an illusion of control.

2.3. Gains, Losses, and the Revision of Confidence

Gains and losses can reshape how individuals interpret their decisions. Confidence may therefore be viewed as an ongoing process of calibration between initial expectations and observed outcomes. Favorable results can be interpreted as confirmation of effective judgment, thereby strengthening self-confidence while also increasing the risk of overconfidence. Gains may thus serve as subjective evidence of competence. Losses produce the opposite dynamic (Finet, Kristoforidis, & Laznicka, 2025a). They undermine confidence because they call into question judgment and the sense of control. They function as negative signals that prompt individuals to reassess their decisions and perceived ability to act. Losses may expose participants' perceived limitations. This mechanism becomes clearer when considering how risk is perceived in a given situation. Mugerman, Steinberg, and Wiener (2022) show that the way risk is made visible influences investors' decisions and can alter allocation or withdrawal behaviors.

Attention also plays a key role in this reassessment. Davydov, Khrashchevskyi, and Peltomäki (2021) show that investors' attention does not have a uniform effect on performance. Confidence depends on what individuals pay attention to signals and their ability to translate these signals into decisions. Digital environments amplify this dynamic by increasing the amount of information and making financial signals more immediate. Freibauer, Grawert, and Rieger (2026) show that trading apps can shape investment behavior by influencing attention and the propensity to act.

2.4. Confidence as an Emotional and Decision-Making Process

Confidence can be viewed as a process that evolves through the interpretation of decisions and their outcomes. It may shape action before a decision is made, but it may also emerge from the decision-making experience itself. This process-oriented perspective clarifies the relationship between confidence, uncertainty, and learning. Individuals may approach a decision with exploratory confidence, have that confidence reinforced by positive signals, and subsequently reassess it when outcomes become unfavorable. Conversely, initial doubt may gradually develop into more stable confidence. Confidence therefore emerges, weakens, or changes according to how outcomes are interpreted.

This trajectory also has an emotional dimension. Decisions made under uncertainty and the possibility of loss generate emotions that influence how individuals perceive both themselves and the situation. Confidence may be strengthened by success, weakened by fear of making mistakes, or rebuilt through efforts to restore the ability to act. It is therefore closely connected to the emotional processes involved in maintaining, protecting, or reconstructing a sense of competence. Research on investor sentiment supports this interpretation. Peng (2024) highlights the importance of emotional states in rapid financial decisions. Confidence thus depends on the emotional environment, market signals, and collective dynamics of interpretation.

This perspective suggests that confidence should be understood as part of an emotional and evolving process. This conception provides a basis for analyzing decision-making in terms of the construction, erosion, and transformation of the sense of competence.

3. Methodology

3.1. Research Design

Our study adopts a qualitative and exploratory design to examine how confidence develops and is reconstructed among novice investors during a stock market simulation. A qualitative approach is appropriate because the study focuses on how participants describe, interpret, and narrate their decision-making experiences. The interviews were examined as individual trajectories to identify recurring patterns. The analysis then moved from individual narratives to broader analytical categories while preserving the distinctive features of each account. It was organized around four stages of the confidence trajectory: the initial response to the simulation, reinforcement through gains, erosion through losses, and reconstruction following destabilization.

3.2. Simulation Protocol and Participants

The empirical setting for this study was a four-hour stock market simulation conducted on December 4, 2025, with second-year business administration students at the University of Mons, on the Charleroi campus in Belgium. The use of stock market simulations is part of experimental and pedagogical approaches that allow for the observation of decision-making mechanisms in a controlled environment, while retaining several characteristics of a real-world market situation (Fréchette & Schotter, 2015; Harrison & Lisi, 2004). The participants had taken an introductory course in finance but had not yet taken the final exam at the time of the experiment. They had therefore been exposed to certain basic financial concepts but had no practical experience with stock markets, financial instruments, or trading.

The analysis focuses on participants whose confidence, perception of risk, and sense of competence are still developing. The classification of these participants as novice investors is confirmed by the descriptive characteristics of the interview sample, presented in Appendix 3. Of the fifteen participants interviewed, fourteen reported having no prior stock market experience. The only participant who reported prior experience specified that it consisted of a stock market simulation organized as part of another finance course, rather than personal investment experience.

The simulation was designed to replicate aspects of a short-term trading environment. Each participant started with a virtual portfolio of 100,000 euros and could trade only securities included in the CAC 40 index. Short selling and limit orders were not permitted to standardize the decision-making environment and make the task accessible to novice participants. Trades were executed on the ABC Bourse platform, within an environment dedicated to the simulation. The instructions given to participants and the main features of the ABC Bourse platform are presented in Appendix 1. Participants were free to determine the number of trades, the timing of purchases and sales, and the percentage of capital to invest. A 0.2% transaction fee was applied to each trade, making intensive trading costly.

The simulation environment provided participants with continuous and immediate feedback on both their decisions and performance. They could monitor changes in portfolio value throughout the exercise and compare their position with that of other participants through a visible leaderboard. A tournament-based incentive system was also introduced: first place received a two-point bonus on the final exam, second place received 1.5 points, and third place received one point. All participants received an additional 0.5 points for participation. The design therefore combined uncertainty, time pressure, virtual gains and losses, transaction costs, continuous performance feedback, social comparison, and academic incentives.

On the day of the experiment, the CAC 40 gained 0.42%, closing at 8,122 points. However, during the simulation period, from 1:30 p.m. to 5:30 p.m., the index remained virtually stable, rising from 8,120 points to 8,122 points. Most of the daily gain occurred before the start of the exercise, while the afternoon session was more of a consolidation phase. When U.S. markets opened, the Dow Jones was also relatively stable, up about 0.03%, reflecting the market's lack of clear directional trend during the simulation. This scenario limits the possibility of attributing performance differences to a market trend.

The full experiment involved twenty-five students. The qualitative data consists of fifteen semi-structured interviews conducted after the simulation with the participants who voluntarily agreed to take part in this interview phase. The interviews focused on participants' initial attitudes toward the stock market, their mindset before the simulation, their reactions to gains and losses, the role of rankings, their sense of competence or incompetence, their attitude toward risk, decisions to recover losses or withdraw, and the lessons they perceived they had learned after the experience. The interview guide used to structure the semi-structured interviews is presented in Appendix 7. Descriptive statistics for the fifteen interviews, including duration, number of words, and number of pages, are provided in Appendix 2.

3.3. Analytical Approach

The analysis of the interviews was conducted using a thematic approach, focusing on how participants described their relationship with confidence and their sense of competence. This approach is consistent with a qualitative analysis which focuses on identifying, organizing, and interpreting recurring patterns in the empirical data (Braun & Clarke, 2006).

The analytical process proceeded in several stages. First, the interviews were read in full to identify their general content and recurring themes. This initial review highlighted repeated references to confidence, caution, fear of loss, doubt, satisfaction with gains, disappointment following losses, perceived control, and difficulty managing the situation.

The interviews were then reread to identify units of meaning relevant to the research question. The selected passages concerned participants' state of mind before the simulation, their perceived competence or lack of competence, their fear of making mistakes, their reactions to gains and losses, their responses to the rankings, their sense of control, their attempts to recover losses, their withdrawal behaviors, and the lessons they drew from the experience.

In the third stage, these units of meaning were assigned descriptive codes. Passages expressing curiosity, optimism, or a perceived ability to succeed were coded as forms of initial or exploratory confidence. Passages expressing caution, low confidence, stress, or fear of loss were coded as forms of uncertain or reserved confidence. Positive reactions to gains were coded as outcome-based validation, whereas negative reactions to losses were coded as a weakening of perceived control. Finally, responses following the erosion of confidence were coded according to whether they reflected learning, compensatory recovery, or withdrawal. This coding stage aimed to move toward progressively stabilized analytical categories, in accordance with an iterative qualitative coding approach (Saldaña, 2013).

In the fourth stage, the descriptive codes were grouped into broader analytical themes. This process revealed a three-phase trajectory: an initially ambivalent form of confidence, confidence tested by gains and losses, and confidence reconstructed after erosion. Initial confidence encompassed different orientations toward financial decision-making, ranging from exploratory curiosity to cautious doubt. Weakened confidence referred to moments when losses challenged participants' perceived competence. Reconstructed confidence captured the ways in which participants sought to restore their capacity to act through learning, compensatory recovery, or withdrawal.

In the fifth stage, the interviews were compared across cases to identify recurring patterns and individual variations. This comparison revealed three main forms of confidence reconstruction. Adaptive reconstruction was based on learning, decision adjustment, and a progressively clearer understanding of the situation. Compensatory reconstruction involved attempts to recover losses or restore diminished performance. Defensive reconstruction relied on greater caution, reduced risk exposure, withdrawal, or partial disengagement from decision-making. This comparison helps strengthen the coherence of the interpretation by linking the patterns observed across the corpus with the variations specific to each trajectory (Miles, Huberman, & Saldaña, 2014).

Finally, themes were reorganized within a temporal framework to capture how confidence evolved over the course of the simulation. This framework distinguished four key moments: before the simulation, initial gains, first losses, and the end of the exercise. An example of the analytical procedure is provided in Appendix 4.

3.4. Coding Grid

The coding grid is organized around three levels of analysis: empirical indicators from participants' narratives, descriptive codes assigned to the verbatims, and broader analytical themes to structure the findings. This framework serves two functions. First, it strengthens analytical traceability by showing how empirical material was transformed

into codes and themes. Second, it supports the interpretation of novice investors' confidence as a process shaped by successive reinforcement, erosion, and reconstruction. The cross-interview traceability table is presented in Appendix 6.

Table 1. Coding Grid for the Analysis of Confidence Trajectories.

Stage of the trajectory	Empirical indicators identified in the interviews	Descriptive codes	Analytical themes
Before the simulation	Curiosity, desire to try, optimism, stress, caution, fear of losing, feeling of not knowing enough about the stock market	Exploratory confidence; prepared confidence; uncertain confidence; caution	An initial mixed reaction to confidence
First gains	Happiness, pride, satisfaction, the impression of having made good decisions, a sense of competence, a desire to continue	Gains as validation; increasing portfolio value as confirmation; confidence bolstered by the results	Confidence confirmed by the first positive signs
First losses	Stress, doubt, panic, disgust, frustration, a sense of being lost, the feeling of not knowing what to do anymore, loss of control	Loss as a destabilizing factor; doubt; a weakened sense of competence	Confidence undermined by losses
Reactions to losses	Trying to recover, increasing exposure, and seeking to offset a loss	Compensatory recovery; restoration through action; revenge	Compensatory rebuilding of confidence
End of simulation	Withdrawal, caution, reducing exposure, waiting, giving up, regaining composure, learning.	Regulation; risk reduction; defensive withdrawal; adaptive learning	Confidence restored after being undermined

4. Results

The interviews revealed a three-stage trajectory of confidence. Initially, participants displayed an ambivalent orientation toward the simulation: some approached it with curiosity or a sense of preparedness, whereas others expressed caution, stress, or doubt. Confidence then evolved in response to the first performance signals. Gains generally strengthened participants' perceived competence, while losses were associated with doubt and weakened their sense of control. Once undermined, confidence was reconstructed through distinct trajectories.

Table 2 shows how the analytical findings are supported by the interviews. For each finding, it indicates the number of cases as well as the logic of convergence. A single participant may contribute to multiple findings, since the trajectory of confidence may involve several successive stages.

Table 2. Cross-Interview Convergence of the Main Findings.

Subsection of Results	Number	Logic of Convergence
Confidence as curiosity and a desire to try	6/15	These participants approach the exercise with a positive attitude: a desire to discover, curiosity, interest in the activity, or a perception of the exercise as a learning opportunity.
Confidence built through information-seeking	5/15	These participants build a form of prior confidence through research, advice, familiarization with the system or prior experience.
Lack of confidence as a Form of Novice Lucidity	8/15	These participants express initial caution, doubt, or a sense of incompetence, often associated with a lack of experience, a fear of losing money, or the feeling that they do not have sufficient knowledge.
The increase in portfolio value as confirmation of their choices	7/15	These participants associate an increase in portfolio value with positive emotions: satisfaction, pride, a sense of competence, renewed confidence, or a desire to continue.
Rankings as a confidence booster	4/15	These participants interpret the ranking as an indicator of relative performance. Being well-positioned, not being at the bottom of the rankings, or wanting to stand out reinforces motivation, optimism, or confidence.
The risk of confidence being confirmed too quickly	3/15	These participants show that the confidence generated by gains can encourage increased risk-taking or a sense of competence.
The shift into losses as a breakpoint	4/15	These participants describe a break between an initially positive moment and a phase of loss. The shift from positive to negative alters the meaning of the experience.
The decline in portfolio value and the feeling of being lost	9/15	These participants associate the decline in portfolio value with negative emotions: stress, disgust, panic, frustration, hesitation, regret, and a sense of being lost.
Loss as an Indicator of Novice Investor Status	7/15	These participants attribute their difficulties to limited knowledge of the stock market.
Adaptive Recovery: Learning, Understanding, and Calming Down	5/15	These participants transform the experience into learning or a sense of being better able to manage the situation.
Compensatory reconstruction: rebuilding oneself to restore confidence	5/15	These participants seek to recover from a loss, restore their confidence, or restore a level of performance. Confidence is rebuilt through a process of catching up.
Defensive reconstruction: caution, withdrawal, or abandonment	6/15	These participants restore a minimum level of control by reducing their exposure to risk: waiting, exercising caution, withdrawing, or limiting losses.

4.1. Initial Ambivalent Confidence: Between Curiosity, Optimism, and Doubt

Participants do not enter the simulation with the same attitude toward confidence. Some approach the exercise as an opportunity for discovery or learning. Others, by contrast, express initial lack of confidence, often associated

with their limited experience, fear of losing money, or the feeling that they do not fully understand the stock market. This initial phase shows that novices' initial confidence oscillates between a desire to try, caution, and a partial illusion of control.

4.1.1. Confidence as Curiosity

For some participants, entering the simulation is associated with positive curiosity. Their confidence comes from a desire to discover a new situation. P15 explains that before the experiment, he had never really been interested in the stock market, but he was excited when it began. He initially thought he could make "lots of profits," though he later acknowledged that this expectation was based on a limited understanding of the stock market. This initial form of confidence corresponds to exploration. The participant enters the situation with a positive attitude, and the exercise is seen as an opportunity to learn. P14 explains that he was interested in taking part in the simulation because it is "by doing" that one learns, but he also states that he did not know exactly whether it would go well or poorly. This initial confidence appears to be a form of commitment-based confidence that allows one to act without eliminating doubt.

4.1.2. Confidence Built Through Information Gathering

For other participants, initial confidence is built through a preparatory process. It is based on the feeling of having reduced uncertainty through prior research. P14, for example, says he consulted his father's banker and various financial websites before the simulation. This preparation is presented to better understand the factors likely to influence the markets. In this case, such preparation gives the participant the feeling of entering the exercise with some interpretive resources. P6 explains that she was "fairly confident" before the simulation because she had found a way to practice. This form of confidence is based on preparation that is often limited. It can be quickly undermined when the participant is confronted with making actual investment decisions.

4.1.3. Skepticism as a Form of Lucidity

Conversely, several participants entered the simulation with limited confidence. This often reflected a recognition of their lack of experience. P12 describes himself as "rather cautious" when it comes to financial decisions. He explains this caution by referring to a fear of negative consequences. He also notes that he knows "absolutely nothing about the stock market." P10 says he is hesitant about the idea of investing his money in the stock market, mainly because of a fear of losing money. He attributes his apprehension to his lack of experience. P4 also attributes her apprehension to a lack of information and a fear of losing money. Before the simulation, she says she felt stressed, explaining that she had never participated in this kind of simulation and that she was afraid of investing "in just anything."

This initial lack of confidence can therefore be interpreted as a form of novice lucidity. Participants perceive the stock market as a complex environment that they do not yet fully understand. This caution suggests that confidence will need to be built as they face their first results and make their first decisions.

The initial stage shows that confidence may emerge as curiosity, confidence derived from preparation, or cautious skepticism. In each case, the simulation confronts participants with the gap between what they believe they know and how they interpret the outcomes.

4.2. Early Signs of Performance: Success as Self-Validation

Early gains play a central role in the dynamics of confidence. Gains produce satisfaction and validate the participant's judgment.

4.2.1. An Increase in Portfolio Value as Confirmation of Choices

Several interviews show that an increase in portfolio value reinforces a sense of competence. P6 explains that she felt "quite proud" of her choices when stock prices rose. Gains are associated with positive emotions and a positive self-assessment as a decision-maker. P11 explains that observing an increase in the value of her portfolio gave her a sense of satisfaction, as it made her feel that, even with limited knowledge of the stock market, she could "manage on her own." She adds that, when she felt more confident, her decision-making time decreased, which shows that confidence affects the decision-making process. P15 also describes a strong positive reaction when stock prices increase. He explains that he watched the changes "down to the last cent" and waited for the next cent. This focus reflects confidence driven by the portfolio's positive performance. Increasing stock prices have become a source of excitement and reinforce the desire to continue investing. Gains act as a signal of competence. Even when decisions are based on limited experience, a positive result generates a sense of validation.

4.2.2. Rankings as a Confidence Booster

Rankings serve as a second signal of validation. They provide participants with a comparative measure of their performance, and rankings transform individual confidence into relative confidence. P1 explains that at first he was stressed, but then he became "a little more relaxed" and "a little more confident" when he discovered he was in first place in the rankings. In the end, he even describes himself as "extremely confident," because he believes he can win the competition. The ranking reshapes the participants' perception of their competence. P8 explains that not being at the end of the ranking motivated her, and notes that her confidence and optimism were stronger when she saw that she was well-positioned. She even associates this position with the idea of having a "good strategy," while implicitly acknowledging the tentative nature of this interpretation.

Ranking therefore introduces a social dimension to confidence by making participants' relative positions visible. It enables them to evaluate their performance against that of others, which may strengthen confidence while also increasing pressure by highlighting differences in performance.

4.2.3. The Risk of Confidence Confirmed Too Quickly

The interviews show, however, that confidence strengthened by gains can be fragile. Participants may interpret a positive result as proof of competence, even though their decision is based on limited knowledge. The gain

transforms an increase in the portfolio's value into validation of their judgment. P10 explains that when he was making money at first, he felt confident. This confidence led him to invest more, sometimes "without thinking," which subsequently contributed to losing the money he had earned. The confidence generated by the initial gain appears to reduce the level of deliberation applied to subsequent decisions. P4 describes a similar pattern. When the value of her portfolio rose, she regained confidence; but she also explains that when she was happy or confident, she tended to take more risks and invest without a clear strategy, which she later interpreted as a bad choice.

Gains may therefore strengthen the sense of control, encourage further action, and reduce deliberation. Although early positive outcomes can reinforce confidence, they may also make it more vulnerable to subsequent erosion when later results do not confirm participants' expectations.

4.3. Loss as a Test of Confidence: Stress, Doubt, and Loss of Control

Losses represent a critical point in the development of confidence. They challenge participants' perceived decision-making ability, weaken their sense of competence, and introduce doubt. As a result, the simulation may become a source of threat rather than an opportunity for learning.

4.3.1. The Shift into the Red as a Break

The shift from a positive portfolio to a negative one often constitutes a break in the emotional trajectory. P12 describes a positive start to the simulation, followed by a "major shock" when it turns negative. In the end, he explains that he tried "to go all in." This shift alters the meaning of the experience. As long as the portfolio remains profitable, participants may interpret the simulation as a successful experience. Once its value becomes negative, however, uncertainty becomes more difficult to manage. Participants then attempt to understand the causes of the loss and contain its consequences. The simulation consequently shifts from an opportunity for experimentation to a situation in which perceived competence is challenged and confidence becomes increasingly fragile.

4.3.2. The Decline in Portfolio Value and the Feeling of Being Lost

A decline in portfolio value undermines the sense of control. P12 says he felt "lost" when his portfolio value was falling, adding that he didn't know how to react. The loss disrupts one's ability to make decisions. P6 says she felt "disgusted" when stock prices fell, then explains that it made her "panic a little" and gave her the feeling that she had to act. P11 describes the continuous decline of the stock price. She hesitates between selling immediately or waiting a little longer, regretting not having sold. Faced with an unfavorable outcome, she primarily expresses frustration. In such situations, confidence gives way to uncertainty over whether to act, wait, withdraw, or attempt to recover the loss. Participants are therefore led to reconsider how they respond to uncertainty.

4.3.3. Loss as an Indicator of Novice Investor Status

Several participants attribute their difficulties to a lack of experience or insufficient knowledge. P15 acknowledges that his initial expectation of profits was based on limited knowledge, and that the simulation did not go as planned because he did not truly understand how the market works. P10 explains that he expected the simulation to go rather poorly because he didn't really have any experience. P9 explains that he looked for information at the last minute, "mixed everything up," and believes this cost him a better performance. He also notes that he didn't really feel confident during the experiment. Losses therefore expose the vulnerability of novice investors' confidence, as their decision-making remains constrained by limited reference points for interpreting market movements. This vulnerability may result in withdrawal, but it may also initiate a process of confidence reconstruction.

4.4. Rebuilding Confidence: Three Trajectories Following Erosion

Analysis of the interviews shows that participants do not react uniformly to losses.

4.4.1. Adaptive Reconstruction: Learning and Understanding

In the adaptive trajectory, losses contribute to a clearer understanding of the situation. The confidence reconstructed through this process is more cautious and rests on a better understanding of how the system operates. P3 explains that at first she got "a little carried away" and wanted to invest quickly. Then, during the experiment, she says she gained a better understanding of the meaning behind the fluctuations, before calming down, making fewer transactions, and adopting a more controlled approach. Confidence is rebuilt through learning, and the initial mistake becomes a resource for acting more effectively. This logic becomes even clearer when she notes that decisions made under emotional pressure contribute to the development of her understanding. She does not necessarily regret having acted poorly at first, because that mistake contributed to her learning and to a better way of acting. Loss becomes a formative experience. P7 explains that in the middle of the simulation, she feels reassured because she feels she is in control of the situation. In this trajectory, rebuilding confidence is based on a gradual understanding of the effects of decisions and becomes confidence shaped by experience.

4.4.2. Compensatory Reconstruction: Rebuilding to Restore Confidence

The second trajectory is compensatory. In this case, confidence is rebuilt through actions intended to offset the loss. P15 mentions the decline in his portfolio value, and he says he feels disgusted and is looking for a way to make up for it. He explains that he has a hard time accepting the loss and wants to find a way to recover. He associates certain decisions with frustration, while acknowledging that, rationally speaking, those purchases weren't necessarily good. P12 follows a similar path. After his portfolio went into the red, he explains that he tried "going all in." P13 explains that as her losses accumulated, she wondered whether she should sell before things got worse or hold onto the securities in the hope of a rebound. She wanted to recoup what she had lost and her inability made her nervous. Compensatory confidence emerges in response to loss and reflects an attempt to offset the perceived failure. In this trajectory, restoring confidence may encourage greater risk-taking, as participants seek to reaffirm their competence as decision-makers.

4.4.3. Defensive Reconstruction: Caution, Withdrawal, or Abandonment

The third trajectory is defensive. Confidence is rebuilt by reducing exposure. P4 explains that at the beginning, participants start "somewhat confident," then stress increases as the experiment progresses, until they eventually "give up" and "quit." The decline in the portfolio's value is associated with sadness, a loss of confidence, and a sense of disgust. P10 also mentions a shift toward greater caution after losses. P8 provides an example of reducing exposure. Toward the end, seeing that she was incurring losses and that there was little time left, she no longer wanted to buy and sought to minimize risks. She notes that she held onto certain stocks in the hope of a rebound, then sold everything just before the end. P13 also adopted a defensive strategy toward the end of the experiment. After initially trying to recoup her losses, she sold and waited, based on the idea that it was better to secure the remaining capital rather than risk losing more. Waiting or reducing exposure can allow participants to regain a level of control when confidence has weakened (Finet, Kristoforidis, & Laznicka, 2025b).

In summary, the results show that novice investors' confidence follows an unstable trajectory. Initial confidence may be exploratory, preparation-based, or cautious; it may subsequently be reinforced by gains or undermined by losses and feelings of incompetence. Finally, it is rebuilt along three paths. These three trajectories demonstrate that confidence is part of an emotional process that is revised through experience.

5. Discussion

5.1. Confidence as a Dynamic Process Rather Than a Stable Trait

The findings support a process-oriented analysis of confidence. A dispositional perspective treats confidence as a relatively stable individual characteristic, distinguishing confident participants from more hesitant ones. Among novice investors, however, confidence develops, weakens, and changes through the decision-making experience. This interpretation is consistent with research on self-efficacy and situational learning. Bandura (1997) demonstrates that a sense of competence is built upon experiences, failures, feedback, and the individual's interpretation of their performance. In a situation of financial uncertainty, confidence evolves as individuals test their ability to act, to understand the consequences of their decisions, and to maintain a degree of control. This interpretation can also be supported by research on metacognition, understood as the ability to adjust cognitive processes (Flavell, 1979).

5.2. Confidence, Overconfidence, and Fragile Confidence

This discussion distinguishes several forms of confidence that are often grouped together. In financial research, confidence is frequently examined through overconfidence, but this perspective does not fully capture the variety of forms observed among novice investors. Initial confidence may be understood as a positive expectation before action, supported by a willingness to engage and an anticipation of success.

Overconfidence arises when an individual interprets a favorable signal too quickly as evidence of competence. Langer (1975) work on the illusion of control helps clarify this mechanism. In situations where external factors play a significant role, individuals may feel that their actions directly produce the outcome: a gain may be interpreted as confirmation of competence, even though it may depend on a market movement.

Fragile confidence is a temporary form of confidence that becomes vulnerable when outcomes turn unfavorable. It is characteristic of learning situations in which individuals act without yet having developed a stable understanding of the environment. This fragility reflects the gap between willingness to act and uncertainty about the quality of one's decisions.

Once confidence has weakened, it may be reconstructed in three main ways. Defensive reconstruction restores a sense of control through caution, withdrawal, or reduced risk exposure. Compensatory reconstruction involves attempts to recover losses and restore performance. Adaptive reconstruction relies on reflection, learning, and the reinterpretation of experience.

5.3. The Central Role of Losses

Losses serve as psychological tests of one's sense of competence. A loss forces the participant to reinterpret what they thought they understood and what they are still capable of doing. This interpretation can be associated with the "risk-as-feelings" hypothesis (Loewenstein, Weber, Hsee, & Welch, 2001): risky decisions are guided by the emotions experienced during the decision-making process. In the case of a loss, negative emotion can become a factor in the subsequent decision. Lerner and Keltner (2001) also help explain why not all negative emotions produce the same effects. Fear may encourage avoidance, whereas anger or frustration may increase risk-taking. This contrast helps distinguish defensive from compensatory reconstruction. In defensive reconstruction, losses lead to caution, withdrawal, or reduced exposure. In compensatory reconstruction, they prompt attempts to recover what was lost. Losses therefore reveal the fragility of perceived competence and may lead participants to learn, compensate, or protect themselves. They also underline the emotional dimension of confidence. When outcomes remain favorable, participants may attribute performance to their own decisions. When outcomes deteriorate, confidence is reflected in their ability to interpret failure, preserve a sense of control, and continue acting.

5.4. Rankings as Performance Feedback and a Mechanism for Calibrating Confidence

Rankings add a social dimension to confidence by providing visible performance feedback and enabling participants to compare themselves with others. This helps explain why favorable rankings may strengthen confidence. Under uncertainty, positive feedback can be interpreted as evidence of competence, even when outcomes are partly shaped by external factors. Conversely, unfavorable feedback may weaken perceived control and prompt participants to reconsider their judgments. Rankings therefore contribute to the ongoing calibration of confidence.

This idea aligns with Fleming and Daw (2017) who view confidence as a form of metacognitive self-assessment of the quality of choices. Research by Kirchler, Lindner, and Weitzel (2018) shows that rankings and tournament-style incentives can increase risk-taking, particularly among participants who are underperforming. Rankings can transform one's relationship to action by making the perceived need to catch up more visible. Rankings can also be linked to research on the role of confidence in decision adjustment. Pescetelli and Yeung (2021) show that decision-making confidence influences how individuals use external information and revise their judgments. Finally, Lavín,

García, and Fuentes (2024) highlight that confidence influences decision-making flexibility in contexts of uncertainty. This perspective helps explain why the same ranking can produce different effects: it can strengthen commitment when participants view it as confirmation and it can also generate caution when it reveals an unfavorable gap.

5.5. Learning or Retrospective Rationalization

Some participants appear to develop a more accurate understanding of the experience by identifying their mistakes, reducing impulsive behavior, and reconsidering their approach to risk. Others, however, may restore confidence by constructing a narrative that makes their performance easier to accept.

This distinction can be understood by considering Schön (1983) work on reflective practice: individuals transform their experience into a resource for acting differently. However, a retrospective review does not necessarily represent learning. Mezirow (1991) work on transformative learning suggests that learning involves a transformation of interpretive frameworks. Participants may explain their decisions without changing their relationship to the decision. Rationalization then serves to restore narrative coherence, but it does not guarantee a stabilized competence. Sitkin and Pablo (1992) work on risk behavior emphasizes that risk-taking depends on the perception of risk and on experience. This approach helps explain why the same loss can lead to different responses: some participants interpret it as an incentive to learn, others as a loss to be recovered, and others as a sign justifying withdrawal.

6. Conclusion

Our article examined how confidence changes among novice investors during a stock market simulation. The interviews revealed a three-stage trajectory. Before the simulation, confidence took mixed forms, combining curiosity and optimism with caution, doubt, and stress. During the exercise, early gains generally strengthened perceived competence, whereas losses weakened confidence and raised doubts about participants' decision-making abilities. Confidence was then reconstructed through three paths: adaptive, compensatory, and defensive.

The article's main contribution is to show that confidence among novice investors develops through experience and is continually shaped by performance feedback and social comparison. Confidence therefore emerges within a context of evaluation, uncertainty, and interpretation. Financial research often examines confidence primarily through overconfidence, but this perspective captures only part of the phenomenon. Among novice investors, confidence can encourage engagement, respond to outcomes, and support recovery after losses. It involves perceived competence, interpretations of performance, risk perceptions, and the ability to continue acting. Confidence may be exploratory when it facilitates engagement, vulnerable when it depends on immediate outcomes, protective when it promotes caution, and restorative when it helps recover a sense of control. The findings highlight the affective, cognitive, and temporal dimensions of confidence. It is affective because it is experienced through satisfaction, doubt, frustration, and relief, cognitive because it depends on participants' assessments of their abilities and temporal because it evolves in response to gains, losses, and successive interpretations.

7. Limitations and Directions for Further Research

This study has several limitations, each of which suggests directions for future research.

First, the interviews were conducted after the simulation and therefore provide retrospective accounts rather than direct access to decisions as they occurred. Participants may have reinterpreted their choices, mistakes, and performance after the event, creating a risk of retrospective rationalization.

Second, the simulation lasted only four hours. This limited time frame does not make it possible to determine whether the identified forms of confidence persist, evolve, or disappear as experience develops. Longer or repeated simulations would allow researchers to examine whether confidence becomes more stable over time.

Third, the simulated setting does not fully reproduce real investment conditions, particularly the financial consequences associated with actual gains and losses. Future research could compare confidence trajectories observed in simulations with real investment contexts.

Fourth, the ranking system and continuous feedback may have influenced participants' confidence and behavior. Because social comparison was embedded in the design, the study cannot isolate how confidence would develop in the absence of rankings. Comparative designs could examine settings with and without rankings, as well as continuous versus delayed feedback.

Fifth, the sample consisted of novice investors participating in an educational exercise, which limits the generalizability of the findings. Further studies could compare financially trained students, novice retail investors, and experienced investors to determine whether the trajectories are specific to early learning situations.

Sixth, interview narratives alone cannot capture the full range of emotional and decision-making processes as they occur. Future research could combine interviews with transactional data and real-time measures of emotional responses. Such triangulation would help connect what participants report, what they experience during decision-making, and how they behave.

Finally, the adaptive, compensatory, and defensive trajectories should not be regarded as mutually exclusive. Participants may move from one form of reconstruction to another over time. Longitudinal research could therefore examine transitions between these trajectories and identify the conditions that support more adaptive forms of confidence reconstruction.

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Appendix

Appendix 1. Instructions for Participants and Description of the ABC Bourse Platform.

The instructions were presented before the session began and explained verbally by the instructors to ensure that participants fully understood the rules.

1. Objective of the Simulation

Participants took part in a four-hour stock market simulation on the ABC Bourse platform. Each participant managed an individual virtual portfolio with an initial capital of 100,000 euros. The objective was to maximize the final value of the portfolio at the end of the simulation, within the framework of the incentive system described in the article.

2. Trading Environment

The simulation took place in an individual trading environment. Participants were free to place orders during the session, which were executed at the market price available at the time of the transaction. The platform provided access to real-time quotes, market information, the portfolio's composition, and its value throughout the exercise. The investment universe was limited to the stocks comprising the CAC 40 index. Short selling was not permitted.

3. Possible Actions

During the simulation, participants could buy CAC 40 stocks with available cash, sell securities, or retain cash and positions without executing any trades. They could place as many orders as they wished during the four-hour period, provided they complied with the platform's rules.

4. Portfolio Tracking and Feedback

Participants could continuously monitor the value and composition of their portfolios. Information regarding rankings and performance was available during the simulation, in accordance with the competitive framework and incentive system described in the article.

5. Rules and Constraints

The main rules were as follows: only CAC 40 stocks could be traded, short selling was not permitted, transactions were executed at real-time market prices, participants had access to market information during the trading session, and each participant managed only his/her own portfolio.

6. Data Recorded by the Platform

The platform recorded the transaction history and the successive states of each participant's portfolio.

Appendix 2. Descriptive Statistics from the Semi-Structured Interviews.

Participant	Duration	Number of words	Number of pages
P1	17 minutes and 33 seconds	2,925	7
P2	25 minutes and 25 seconds	4,425	10
P3	19 minutes and 21 seconds	2,963	8
P4	12 minutes and 3 seconds	2,042	8
P5	15 minutes and 1 second	2,270	8
P6	11 minutes and 34 seconds	1,830	7
P7	21 minutes and 20 seconds	2,114	7
P8	19 minutes and 3 seconds	2,452	7
P9	13 minutes and 3 seconds	1,855	6
P10	8 minutes and 39 seconds	1,323	7
P11	12 minutes and 33 seconds	1,793	6
P12	10 minutes and 25 seconds	1,568	6
P13	25 minutes and 42 seconds	3,798	9
P14	18 minutes and 34 seconds	3,524	14
P15	7 minutes and 40 seconds	1,526	4
Mean	15 minutes and 52 seconds	2,427.2	7.6
Standard Deviation	5 minutes and 41 seconds	915.6	2.3
Minimum	7 minutes and 40 seconds	1,323	4
Maximum	25 minutes and 42 seconds	4,425	14

Appendix 3. Descriptive Statistics of the Sample.

Participant	Gender	Age	Previous practical experience with the stock market
P1	Male	20	Yes, but limited to a stock market simulation organized as part of another finance course
P2	Female	20	No
P3	Female	19	No
P4	Female	19	No
P5	Female	33	No
P6	Female	18	No
P7	Female	19	No
P8	Female	19	No
P9	Male	20	No
P10	Male	19	No
P11	Female	24	No
P12	Male	20	No
P13	Female	20	No
P14	Male	19	No
P15	Male	19	No

Appendix 4. Example of the application of the analytical approach: the case of P15.

This Appendix 4 illustrates the application of the analytical approach to an individual interview. It aims to show how units of meaning were transformed into descriptive codes and then associated with the themes and subsections of the results.

Step One: In-depth reading of the interview

The first reading reveals a trajectory marked by three distinct phases: initial curiosity, a gradual erosion of confidence, and then an attempt to regain it. P15 enters the simulation with excitement and a desire to explore, while acknowledging that he does not really know much about the stock market. This initial confidence appears to be exploratory and fragile. The rest of the interview shows that this confidence is quickly challenged with the results: gains elicit happiness and excitement, while losses cause frustration, disgust, and demoralization.

Step Two: Identifying Units of Meaning

Several units of meaning were identified. They first concern the initial relationship with the stock market, characterized by limited knowledge and a desire to learn. They then focus on the state of mind before the simulation, marked by anticipated confidence and the belief that profits can be made. Other units relate to reactions to gains, associated with happiness and attention paid to the increase in the portfolio's value. Reactions to losses constitute another central element: participants express disgust, difficulty accepting the loss, and a determination to recover. Finally, certain passages involve retrospective reflection, when participants acknowledge that their decisions were influenced by frustration.

Step Three: Assignment of Descriptive Codes

The units of meaning were then coded. Passages relating to initial excitement and the desire to explore were coded as "exploratory confidence." The anticipation of profits despite limited knowledge of the stock market was coded as "fragile anticipatory confidence." Positive reactions to the increase in the portfolio's value were coded as "gain as validation" and "excitement associated with the increase." Reactions to losses were coded as "loss as destabilization" and "undermining of the sense of control." Finally, passages relating to the desire to recover losses were coded as "compensatory catch-up," while after-the-fact reflection was coded as "retrospective rationalization."

Step Four: Grouping into Analytical Themes

The codes were grouped into three analytical themes. The first is that of an initially ambivalent relationship with confidence: the participant enters the exercise with curiosity but without true knowledge of the subject matter. The second theme involves confidence being tested by gains and losses: gains temporarily strengthen confidence, while losses undermine it. The third theme involves a compensatory rebuilding of confidence: after losses, the participant seeks to restore their sense of competence by attempting to recover what was lost.

Step Five: Relating to Cross-Cutting Comparisons

The case of P15 illustrates the compensatory trajectory of confidence reconstruction. Like other participants, he responds to loss with a desire to make up for it. This case differs from adaptive trajectories, which are based on gradual learning, and defensive trajectories, which are based on reducing exposure to risk.

Step Six: Temporal Reconstruction of the Trajectory

The final step consists of reorganizing the codes according to temporal logic and linking them to the subsections of the results. P15's trajectory can be summarized in five stages. Before the simulation, the participant exhibits exploratory confidence. During the initial gains, confidence is reinforced, and during losses, confidence becomes fragile. Confidence is rebuilt by investing to recover what was lost.

Appendix 5. Analytical Approach to P15's Confidence Trajectory

Stage of the trajectory	Unit of meaning	Descriptive code	Results subsection
Before the simulation	Excitement, anticipation of gains despite limited knowledge of the stock market	Exploratory confidence; fragile, anticipatory confidence	Confidence as curiosity and a desire to test
Increase in portfolio value	Happiness, intense focus on the increase, a sense that the positive trend may continue	Gains as validation; excitement arising from the increase	The increase in portfolio value as confirmation of choices
Portfolio value declining	Disgust, demoralization, frustration, difficulty accepting the loss	Loss as destabilization; erosion of the sense of control	A decline in portfolio value and a feeling of being lost
Reaction after a loss	Desire to recover losses, increased investment after a loss, loss of perspective on money	Compensatory recovery; restoration through action	Compensatory reconstruction: recovering to restore confidence
Retrospective reflection	Recognition that the purchases were associated with frustration and were not rationally good purchases	Retrospective rationalization; emotional awareness	Compensatory reconstruction: restore confidence in a retrospective sense

Appendix 6. Interview Traceability Table.

Interview	Empirical Indicators	Descriptive Codes	Analytical Theme	Subsections
P15	Initial excitement; desire to explore; anticipation of gains despite limited knowledge; happiness when stock prices increase; intense focus on the upward trend; disgust when the portfolio's value falls; desire to "make up for losses"; retrospective recognition of decisions driven by frustration.	Exploratory confidence; fragile anticipated confidence; gains as validation; excitement linked to increasing prices; losses as destabilization; compensatory recovery; retrospective rationalization.	A trajectory of exploratory confidence, reinforced by gains, then weakened by losses, and rebuilt through compensatory recovery.	S1; S4; S6; S7; S8; S9; S11
P14	Eagerness to conduct the simulation; preparation before the exercise through personal research; uncertainty about the outcome; highly committed initial strategy; regret at not having sold at the right time; attention to ranking.	Commitment-based confidence; prepared confidence; prior reduction of uncertainty; initial uncertainty; validation expected through performance; decision-related regret; ranking as motivation.	Initial confidence built through preparation and the desire to try but exposed to uncertainty.	S1; S2; S5; S6; S7; S8
P12	Initial lack of confidence associated with the fear of negative consequences; lack of knowledge about the stock market; positive start; shift into the red experienced as a "major shock"; feeling of being lost; final "all-or-nothing" attempt.	Cautious skepticism; uncertain confidence; the shift into the red felt like a rupture; loss of control; feeling lost; compensatory catch-up.	A trajectory of confidence destabilized by the loss, then redirected toward a strategy of recovery.	S3; S4; S7; S8; S11
P10	Initial reluctance to invest; fear of losing; lack of experience; enthusiasm as the value in the portfolio increases; confidence strengthened by initial gains; ill-considered reinvestment; loss of the money initially earned; stress; increased caution followed by partial withdrawal as losses accumulate.	Cautious skepticism; lack of experience; confidence bolstered by gains; relaxation of judgment; risk-taking driven by positive confidence; loss as a destabilizing factor; defensive withdrawal.	Confidence that was initially fragile, temporarily bolstered by gains, and then turned into caution or a pullback.	S3; S4; S6; S7; S8; S9; S11; S12
P1	Interest in finance; initial stress; favorable ranking; gradual relaxation; confidence bolstered by	Positive stress; gradual confidence; ranking as validation; relative confidence; confidence	Confidence built gradually and amplified by relative performance.	S2; S5; S10

Interview	Empirical Indicators	Descriptive Codes	Analytical Theme	Subsections
	first place; very strong confidence at the end of the exercise.	bolstered by comparison; sense of competence.		
P9	Initial lack of interest in the stock market; first- -experience; stress that increases after the start; realization of the complexity; expectation of poor performance; attributing difficulties to a lack of information; feeling of not having truly felt confident.	Uncertain confidence; stress related to the complexity; insufficient preparation	Confidence limited by a lack of reference points and by the gradual discovery of the system's complexity.	S3; S9
P11	Lack of knowledge about the stock market; initial anxiety; fear of regretting a decision; satisfaction when the portfolio value increases; sense of being able to "manage" despite the lack of knowledge; reduced decision-making time as confidence increases; frustration with losses or unmade decisions.	Uncertain confidence; fear of regret; gains as reassurance; a sense of provisional competence; decision-making accelerated by confidence; frustration arising from a loss; gradual learning.	Confidence gradually tested by gains and losses, with partial readjustment through learning.	S3; S4; S8; S9; S10
P6	Initial confidence based on research and a preliminary trial; stress related to uncertainty; satisfaction and pride when stock prices increase; disgust and panic when stock prices fall; a sense of having to act; eventual discouragement.	Prepared confidence; decision-making stress; gains as validation; losses as panic; urgency to act; partial withdrawal; discouragement.	Confidence severely undermined by uncertainty, losses, and the pressure to decide.	S2; S4; S8; S11; S12
P5	Distrust of the stock market; initial stress related to the unknown; lack of confidence and experience; uncertainty at the time of decision-making; disappointment at the end of the fiscal year; retrospective review of decisions made.	Uncertain confidence; lack of experience; disappointment.	Low confidence at the beginning, shaped by uncertainty, fear of making mistakes, and limited experience.	S3; S8; S9
P4	Initial lack of confidence associated with the fear of losing; stress at the beginning; slightly stronger confidence when acting; renewed confidence as the portfolio increases; tendency to take more risks when feeling happy or confident; increasing stress; giving up at the end of the exercise.	Fragile confidence; gains restore confidence; risk-taking when confidence is high; increasing stress; loss of confidence; defensive withdrawal.	A fragile confidence trajectory, temporarily bolstered by gains, then shifting toward disengagement.	S3; S4; S6; S8; S9; S12
P13	Entering the exercise without pressure; gradual involvement; motivation reinforced by rankings; nervousness about the right time to buy or sell; desire to recoup losses; hesitation between selling and waiting; selling and waiting at the end of the exercise to avoid making the situation worse.	Confidence in commitment; rankings as motivation; decision-making anxiety; compensatory recovery attempts; defensive risk reduction.	Transition from gradual involvement to a tension between catch-up and defensive caution.	S1; S5; S8; S11; S12
P8	Initial positive stress; interest in the exercise; rapid purchases at the start; gradual shift toward more analysis; motivation associated with ranking; confidence and optimism reinforced by a good relative position; losses and weariness at the end of the exercise; halting of purchases; selling of positions; desire to minimize risks.	Positive stress; confidence in engagement; ranking as motivation; gradual learning; risk reduction; defensive withdrawal; minimization of losses.	Regulatory trajectory: from initial engagement and motivation driven by rankings toward adjustment and then final caution.	S1; S3; S5; S10; S12
P2	Initial confidence stemming from the belief that the exercise can only be positive; caution in decision-making; attention to the stability of actions; comparison with more competitive participants; a desire to learn rather than to win at all costs.	Cautious confidence; social confidence; commitment-based confidence; analytical caution; confidence in stability; learning.	Moderate confidence, guided by caution, social interaction, and the goal of learning.	S1; S2; S10
P7	First experience; feeling lost before the exercise; limited initial investment to "see how it would turn out"; stopping after unsuccessful attempts; feeling reassured upon seeing the direct	Uncertain confidence; partial preparation; cautious experimentation; learning through observation of consequences; confidence in	Adaptive reconstruction through a clearer understanding of the relationship between	S2; S3; S9; S10; S12

Interview	Empirical Indicators	Descriptive Codes	Analytical Theme	Subsections
	consequences of one's decisions; sense of being in control of the situation.	the situation; partial withdrawal.	decision and consequence.	
P3	Initial curiosity; relief due to the limited stakes; initial enthusiasm; gradual understanding of the meaning of fluctuations; decrease in the number of transactions; calm and serenity at the end of the exercise; positive reflection on mistakes.	Exploratory confidence; initial enthusiasm; confidence committed too quickly; gradual learning; regulation; adjusted confidence.	Adaptive trajectory: errors and initial enthusiasm become tools for learning and self-regulation.	S1; S6; S10

Note: S1 = 4.1.1. Confidence as curiosity and a desire to try, S2 = 4.1.2. Confidence built through information-seeking, S3 = 4.1.3. Distrust as a form of novice lucidity, S4 = 4.2.1. An increase in portfolio value as confirmation of choices, S5 = 4.2.2. Rankings as a catalyst for confidence, S6 = 4.2.3. The risk of confidence confirmed too quickly, S7 = 4.3.1. Moving into the red as a breaking point, S8 = 4.3.2. A falling portfolio and the feeling of being lost, S9 = 4.3.3. Loss as an indicator of novice status, S10 = 4.4.1. Adaptive recovery: learning, understanding, calming down, S11 = 4.4.2. Compensatory recovery: rebuilding to restore confidence, S12 = 4.4.3. Defensive recovery: caution, withdrawal, or abandonment.

Appendix 7. Semi-Structured Interview Guide.

Topic	Objective	Example Questions
General attitude toward the stock market and risk	Understand the participant's familiarity with the stock market, their attitude toward financial risk, and their mindset before the simulation.	What is your attitude toward the stock market and risky financial decisions? What was your state of mind before starting the simulation?
Emotional profile during the simulation	Identify the emotions experienced throughout the simulation and how they evolved from the beginning to the middle and the end.	Which emotions did you experience most frequently during the simulation? If you had to describe the simulation from the perspective of your emotions, how would the experience unfold?
Positive emotions	Understand the situations that generate enjoyment, satisfaction, confidence, or enthusiasm.	What gives you pleasure or satisfaction during this type of simulation? In which situations do you feel confident or enthusiastic?
Negative emotions	Identify the sources of fear, stress, tension, frustration, or discouragement.	What causes you the most fear, stress, or tension? How do you react to a loss or a poor decision?
Relationship between emotions and decision-making	Understand how emotions influence decisions to buy, sell, or hold assets.	Do you feel that your emotions influence your trading decisions? Have you ever regretted a decision because of a particular emotional state?
Emotion management and regulation	Identify the strategies used to control or reduce emotions during the simulation.	When you notice your emotions intensifying, do you try to manage them? What strategies help you maintain emotional distance during the simulation?