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# A Neurofinance-Based Model for Developing Public Investor Trust

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## Abstract

Iran's capital market has witnessed substantial transformation over recent decades. However, the sharp downturn of the stock market in 2020 represented a critical juncture, extending beyond retail investors' financial losses and culminating in a widespread public trust crisis. Addressing this issue, the present study proposes a neurofinance-based model aimed at strengthening

public investor trust in Iran's capital market. The model was developed through a mixed-methods design, integrating qualitative grounded theory exploration with quantitative validation via structural equation modeling (SEM). In the qualitative phase, data were collected in 2025 through semi-structured interviews with 17 capital market experts and analyzed using a three-stage coding procedure comprising: open, axial, and selective coding. In the quantitative phase, the proposed theoretical model was empirically tested using SEM on data obtained from 87 investors in the capital market. The qualitative findings reveal that the development of trust is shaped by causal conditions (e.g., information transparency and emotional responses), contextual conditions (e.g., economic stability and social capital), and intervening conditions (e.g., media, education, and supportive institutions). The quantitative results confirm that all model paths are statistically significant and that the model demonstrates an acceptable level of fit. Accordingly, strategies such as enhancing transparency, empowering retail investors, and promoting financial literacy were proposed, generating outcomes at the individual, market, and macro levels. The novelty of this research lies in integrating a neurofinance perspective with a mixed-methods approach to develop a context-specific model aligned with Iran's institutional and cultural environment.

**Keywords:** Public Trust, Capital Market, Neurofinance Model, Grounded Theory, Investors

**JEL Classification:** A1, B4, C5, G1, H, M4, N2

## Introduction

Iran's capital market has undergone extensive developments in recent decades. Meanwhile, the sharp decline in the stock market in 2020 can be considered a turning point in the country's capital market, with consequences that went beyond the financial losses of retail investors and led to a public trust crisis. The created mistrust caused a large portion of small-scale capital to exit the market cycle, the participation of market participants to decrease significantly, and the main function of the capital market in resource mobilization and financing of national production to face serious disruption (Ghaderi et al., 2020). In fact, the post-2020 crisis of trust was not just a financial event, but was rooted in behavioral, psychological, and institutional factors, the reconstruction of which has made it a fundamental necessity for market stability and efficiency. The importance of trust in financial markets stems from the fact that, as one of the pillars of social capital, it provides the main platform for the formation of sustainable economic interactions (Ben &

Dursun, 2018). In the absence of trust, the efficient allocation of resources is significantly compromised, while conditions conducive to emotional decision-making, pronounced price volatility, and overall market inefficiencies are further intensified.

Despite the vital importance of trust in financial markets, a review of the related literature showed that most domestic and international studies in this area have focused on institutional, regulatory, or behavioral-financial aspects (Sharifi et al., 2024). There has been less attention to the role of investors' neural and cognitive-emotional mechanisms in trust formation. At the international level, emerging research in the field of "neurofinance" has shown that emotions and cognitive–emotional processes not only influence financial decisions but can also directly determine the level of trust or distrust among investors (Wu et al., 2010).

These findings demonstrate that a significant portion of price fluctuations and market anomalies originates from investors' emotional responses and cognitive biases rather than solely from fundamental economic factors. However, the domestic literature still lacks a comprehensive model that can explain the mechanism of rebuilding public trust by integrating the neurofinance approach with Iran’s specific institutional and cultural conditions.

This research gap has become more apparent than ever, especially after the 2020 stock market crisis. Based on this, the necessity for conducting research that can innovatively develop public trust among investors is clearly felt. The present research, utilizing a qualitative approach and the Grounded Theory method, aimed to propose a neurofinance-based native model for developing public trust among investors in Iran’s capital market. The main novelty of the present research can be explained on two levels: first, the integration of neurofinance concepts and mechanisms with the Grounded Theory method, which has been rarely addressed in domestic literature; and second, the presentation of a context-specific neurofinance model that simultaneously takes into account investors’ cognitive–emotional dimensions, institutional conditions, and the country’s macroeconomic requirements in rebuilding public trust. The results of this research are expected to be valuable not only theoretically but also practically for policymakers, financial institutions, and capital market participants, providing neurofinance-driven practical solutions for restoring public trust and enhancing the role of the capital market in the country’s economic growth. Accordingly, the present study develops and validates a comprehensive neurofinance-based model for strengthening public

investor trust in Iran's capital market.

Based on the above explanations, the main research question of this study is:

What is the structure of a neurofinance-based model for fostering public trust among investors, and how can this model—derived through a Grounded Theory approach—be empirically validated using Structural Equation Modeling (SEM)?

## Literature Review

The current research builds upon neurofinance theories to establish a theoretical framework concerning trader behavior. It emphasizes expanding the understanding of trust and its various dimensions, explores the intersections of behavioral finance and neurofinance, and examines the processes underlying the formation and erosion of trust within financial markets.

Giddens (1990) described trust as confidence or reliance on the nature or properties of a person or thing, or on the truth of a statement, with the expectation that they will act in ways that minimize negative outcomes and enable the achievement of goals. Ensuring the trustworthiness of individuals is done with respect to a certain series of consequences or events, which is referred to as the starting point of usefulness.

Nowadays, investors' neurofinance factors, along with the cognitive dimension, can influence investment decisions. The neurofinance perspective suggests that some changes in security prices have no fundamental reason and that investor mistrust plays an important role in determining the prices. In fact, the dynamic interaction between noise traders and rational arbitrageurs shapes the prices. If a stock has more noise traders or fewer rational traders, its price volatility is significant (Wu et al., 2010). Therefore, stock price changes rely not only on intrinsic value (information-based value) but also on investors' irrational behaviors derived from neurofinance constructs, which can be measured through investors' neurofinance behavior. Stock price irregularities are usually detected using empirical tests conducted on price models (Sharifi et al., 2024).

Undoubtedly, both investors' irrational behaviors and economic fundamentals can influence the market value of financial assets. In fact, the

buying and selling queues on the Tehran Stock Exchange cause traders to join these queues regardless of whether a share is valuable or not, following the behavior of other market participants, which, in itself, is a factor in stimulating and intensifying excitement during times of market boom and recession. Such irrational behaviors cause market inefficiency and incorrect pricing of securities. If these behaviors intensify and continue, they lead to distrust and the withdrawal of investors from the market, as exemplified by the sharp decline in stock prices in 2020 and the more gradual decline in subsequent years. Neurofinance emerged to explain certain behaviors of individuals and investors. Neurofinance does not only deal with the logical explanation of events and behaviors, but also examines and explains investor behavior from a neurological and neurofinance perspective. Whether investors' emotions affect stock returns has been an important topic in recent academic literature.

A review of previous studies indicated that investor sentiment could be an influential factor in stock returns. Although various studies have used different methods to measure investor sentiment, most find that high sentiment negatively affects stock returns, and vice versa, suggesting that investor sentiment can negatively predict stock returns over time (Baker & Wurgler, 2007). On the other hand, trust, as the most prominent characteristic of social capital and the most important cultural dimension, is recognized as a behavioral motivator whereby: an individual, based on their mindset, takes an action that may be beneficial to them or at least minimizes harm (Algan, 2018). Since trust is an individual's mental perception of the likelihood of fraud (Glaeser et al., 2002), it has a potential effect on investors' reactions to the company's stock price. Moreover, according to the neuroeconomics theory, trust can play an important role in the interactions between managers and investors in incomplete contracts. Managers might be motivated to manipulate financial report results, concealing the company's true outcomes and preventing effective investor supervision. Identifying the managers' motivations causes the investors to respond to the company's financial reports with caution (Ghaderi et al., 2020).

Additionally, recent developments in neurofinance research have emphasized the interdisciplinary fusion of neuroscience, psychology, and financial decision-making. A comprehensive bibliometric and systematic review by Srivastava et al. (2026) highlights how neuroscientific methods such as EEG and brain imaging are shaping the emerging neurofinance literature and suggesting new directions for empirical investigation. Similarly, Francis (2025) conceptualizes neurofinance as a framework that integrates behavioural

finance with neural processes to better understand investor decision-making mechanisms. Complementary to these insights, Kuhnen (2025) reviews the influence of contextual and experiential factors on financial choices from a neuroeconomic perspective, underscoring the relevance of neural and cognitive variables in explaining investment behaviour.

Neuroscience research has shown that financial decision-making has important roots in emotional and motivational processes and cannot be fully understood merely as an expression of cognitive limitations (Sjobreg & Engelberg, 2009). This is due to the fact that decision-making for investment is based on the mental processes that guide it. The rationale for this awareness is that individuals are highly emotional when dealing with financial issues and financial decision-making under conditions of risk and unreliability; therefore, ignoring this aspect leads to an incomplete understanding of individuals' behavior (Lucey & Dowling, 2006). On the other hand, emotions are automatic processes that are strongly associated with positive or negative utility. The brain operates on two types of goal-directed behaviors, namely the pursuit of rewards and the avoidance of loss, which can be independently activated or deactivated (Peterson, 2010). Therefore, understanding brain function is essential for understanding certain aspects of economic choice for investors (Camerer, 2008).

Cohen (2005) demonstrated that neuroscience helps in understanding the origins of behavior, which lie within the neural structures of the brain, and thus clarifies the influence of emotions during the decision-making process. Neuroscience enables individuals to understand the different parts of the human brain and the role of specific regions in an individual's unique behavior. Neurofinance has emerged as a branch of neuroeconomics that is related to the study and application of neuroscience in individual investment decision-making. Further studies in neurofinance focus on specific cases, as noted in the research by Cohen (2005) and Camerer (2008).

The majority of investors lack a clear understanding of the distinction between neurofinance and behavioral finance. Behavioral finance describes the behaviors of individuals who make investment decisions, while neurofinance theories use neurotechnology to understand the behaviors of investors in the financial market. Describing behaviors and their systematic occurrences help make them predictable. Behaviors, when translated into actions, become more observable and reflect the thoughts behind them. This is how cognitive psychology guides the field of behavioral finance. What neurofinance aims to

do is understand the internal processes that lead to thinking, which then manifests in outward action (Tseng, 2006).

## The Concept of Trust and its Levels

Trust is generally defined as the willingness to be vulnerable to the actions of the other party based on expectations of competence, benevolence, and honesty (Mayer et al., 1995; Rousseau et al., 1998). In the capital market, trust appears at three levels: a) individual (the investor's trust in themselves and their judgments), b) interpersonal/professional (trust in advisors, brokers, and fund managers), and c) institutional (trust in mechanisms, regulatory authorities, and the overall market) (McKnight & Chervany, 2002). Therefore, most studies have focused on defining and layering trust levels but have paid less attention to how these levels interact during crises, such as the collapse of the Iranian stock market. This gap underscores the need to develop a neurofinance-based model that effectively fosters and explains public investor trust.

## Behavioral Finance and Neurofinance

Classical financial literature assumes complete rationality, but behavioral finance shows that financial decisions are systematically influenced by biases (Shefrin, 2000; Barber & Odean, 2001). The branch of neurofinance, relying on neuroscience, shows that neuro-emotional processes (such as physiological arousal, the amygdala, and the prefrontal cortex) are linked to risk perception, trust, and decision timing (Lo et al., 2005). At the hormonal level, laboratory studies have shown that oxytocin plays a role in increasing the tendency to trust (Kosfeld et al., 2005). Although both behavioral finance and neurofinance address the role of biases in decision-making, few studies have combined these approaches to explain public trust in investors.

## Mechanisms of Trust Formation/Erosion in the Market

Three major theoretical clusters explain trust, including individual-behavioral/neural, information and disclosure, and governance and institutional support. The individual–behavioral/neural level distorts loss aversion, anchoring, confirmation bias, herding behavior, and overconfidence, as well as risk perception and information acceptance, all of which affect trust (Lo et al., 2005). The information and disclosure level, which includes transparency, timeliness, and reliability of disclosures, reduces information asymmetry and strengthens the foundation of trust (Healy & Palepu, 2001). Governance and institutional support, including legal protection for investors, quality of law,

and effective enforcement of regulations, are correlated with trust and financial depth (Shleifer et al., 2008). Alongside these, macro contextual conditions (inflation, currency volatility, political risk) and the socio-cultural environment (social capital) affect the baseline level of trust (Putnam, 2000; Guiso et al., 2004). These categorizations provide an appropriate framework for understanding the various dimensions of trust, but, alone, they are not capable of explaining the simultaneous interaction among cognitive–emotional, informational, and institutional factors in the Iranian market. For this reason, the present research seeks to offer a native model that integrates these dimensions in a unified manner.

Sayrani et al. (2023) examined the impact of heuristic biases on investment decisions and perceived market efficiency at the Tehran Stock Exchange. They found significant positive relationships between overconfidence and representativeness biases, on the one hand, and perceived market efficiency and investor decisions, on the other. Panahi and Habibirad (2021) conducted a comparative study on the relationship between the stock index and search volume to identify the behavioral pattern of traders in the stock market. They explained the relationships between these two indicators and proposed strategies to improve the behavioral conditions of market traders. Hosseini et al. (2020), in a study on the application of neurofinance to analyze the behavior of Tehran Stock Exchange investors, proposed using neuroscience methods, such as brain signal analysis and psychometrics, to examine investor reactions to risk and reward. They demonstrated that combining neurofinance with behavioral models could provide a better prediction of market behavior. Fattahi (2019) studied monetary and financial disorders, money attitudes, and money anxiety as influential components of society's monetary and economic culture and found that individuals' psychological characteristics have a significant effect on their economic behaviors. Attitudes toward money, individual economic beliefs, biases, and perceptions are major drivers of many individuals' financial decisions. As a result, many of them make decisions that conflict with their financial desires and goals. When individuals become involved in chronic and uncontrolled behavioral patterns, they might suffer from money disorders that cause anxiety, stress, severe tensions, and difficulties in crucial areas of their lives.

Parveen et al., (2021), in a study titled "Examining Investors' Sentiments, Behavioral Biases, and Investment Decisions during COVID-19 in Emerging Stock Markets: A Case of Pakistan," investigated the impact of representativeness, reliance, overconfidence biases, and disposition effect.

They showed that the COVID-19 pandemic influenced investor behaviors, investment decisions, and trading volumes in the stock markets. Vander Wielen and Barrios (2020) demonstrated that the health crisis and subsequent lockdown were accompanied by an unprecedented shift in investors' economic sentiment. Their analysis showed that this change in sentiment was significantly more pronounced in European Union countries, which suffered the greatest economic damage. Rasool and Ullah (2021) revealed that there is a negative relationship between financial literacy and behavioral biases of investors. Khan (2020), in a study on the impact of heuristic biases on investors' decision-making in the Pakistan stock market, with the mediating role of long-term orientation, found that availability and representativeness biases have a significant positive effect on investors' investment decisions. Long-term orientation of investors also weakens the effect of representativeness bias in investment decision-making. However, no significant moderating effect of availability bias was observed. Rehman (2019) examined the factors influencing investor behavior in investment decisions in the Islamabad stock market and found that behavioral factors, emotional biases, and managerial factors significantly affect investor decision-making.

## Research Questions

Given that the current research is qualitative in its initial phase and based on the Grounded Theory approach, no hypotheses were proposed. Since the purpose of this study is to develop an appropriate model for fostering public trust among investors, with an emphasis on the neurofinance phenomenon, the first step was to identify the key components required to construct the proposed model. In the subsequent quantitative phase, the qualitative model derived from the Grounded Theory analysis was tested and validated using the Structural Equation Modeling (SEM) approach. In this regard, the following questions have been raised.

RQ1: What factors can be considered as causal conditions and contextual conditions in the formation of public trust among investors, with an emphasis on the neurofinance phenomenon?

RQ2: What are the intervening components in the formation of public trust among investors, with an emphasis on the neurofinance phenomenon? What strategies can be considered in forming public trust among investors with an emphasis on the neurofinance phenomenon?

RQ3: What are the consequences of developing public trust among investors with an emphasis on the neurofinance phenomenon in the country's stock market?

RQ4: What is the optimal neurofinance-based model for fostering and enhancing public investor trust?

## Research Methodology

In the first phase of the research, which is qualitative in nature, the study aimed to explore and identify the underlying components necessary for developing a neurofinance-based model of public trust among investors in Iran's capital market. This phase was conducted using the Grounded Theory methodology, emphasizing an exploratory approach to uncover the cognitive–emotional, institutional, and contextual factors influencing investor trust.

Grounded Theory is an inductive research method that facilitates the derivation of patterns and concepts directly from empirical data, without the researcher presupposing a theoretical framework at the outset (Corbin & Strauss, 2015). This approach was selected due to the complexity inherent in the phenomenon of public trust in the capital market and the imperative to comprehend it through the lived experiences of subject-matter experts.

The research population comprised experts specializing in capital markets, financial engineering, financial psychology, and neurofinance. The selection of participants was based on the following criteria: established scientific and practical expertise in the concepts of neurofinance and investor behavior; a minimum of five years of professional experience in investment or financial consulting; an academic background evidenced by formal education or scholarly publications in the fields of investment and financial psychology; and prior contribution to qualitative research or supervision of related academic theses. In total, 17 experts participated in the phase. Detailed descriptive statistics for participants are presented in Table 1: Demographic Information of the Participants.

Using purposive sampling, 23 experts were initially identified, of whom 20 were subsequently invited to participate in interviews following a preliminary screening. Ultimately, 17 individuals participated in the study. This sample size was determined in accordance with the qualitative nature of the research and the realization of theoretical saturation. Specifically, after approximately 15

interviews, a repetition of core concepts was observed, with no emergence of new data. The subsequent two interviews were conducted to confirm the lack of additional categories, thereby ensuring that theoretical saturation was entirely achieved by the seventeenth interview.

The primary data collection instrument employed in this study was individual semi-structured interviews. The interview questions were open-ended to allow participants to articulate their perspectives freely. Each interview lasted between 15 and 20 minutes, with all interviews, except for one, conducted via telephone, being conducted face-to-face. All interviews were transcribed immediately following their completion and subsequently subjected to analysis.

The data analysis process commenced concurrently with data collection and was executed in three stages: open coding, axial coding, and selective coding. During the axial coding phase, Corbin and Strauss's (2015) paradigm model was employed to systematically organize categories around the dimensions of causal conditions, contextual conditions, intervening conditions, strategies, and consequences.

In this study, the objective was to examine and validate the causal relationships among the neurofinancial constructs influencing the development of public trust among investors in Iran's capital market. This phase is applied in terms of purpose and descriptive-analytical in terms of data collection, employing a quantitative approach based on Structural Equation Modeling (SEM).

Data were collected using a researcher-developed questionnaire, which was distributed both online via email and social media platforms and, when possible, in person. The questionnaire items were derived directly from the qualitative model developed in the first phase, thereby ensuring content validity.

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the relationships among the latent variables and assess the overall fit of the proposed model.

Accordingly, questionnaires were distributed to active investors in Iran's capital market, yielding 87 valid responses. Regarding the adequacy of the sample size in SEM, it should be noted that, according to Chen et al. (2003), a minimum ratio of 10 cases per estimated parameter is required to achieve

reliable and generalizable results. Similarly, other scholars such as Hair et al. (2006) and Bentler and Chou (2006) have suggested a ratio of 5 cases per parameter. Therefore, considering the structural model of this study, the available 87 observations (questionnaires) are statistically sufficient for conducting the analysis. Among the respondents, 81% were male, and 19% were female. In terms of investment experience, 45% had more than 10 years, 50% had 5-10 years, and 5% had less than 5 years. Table 1 reports the general characteristics of the participants (interviewees and investors).

**Table 1. Demographic Information of the Participants of Quantitative and Qualitative Sections**

| Participants | Entry | Description | Frequency | Percentage (%) |
|---|---|---|---|---|
| Participants of the Qualitative Level | Gender | Male | 14 | 83% |
| | | Female | 3 | 17% |
| | Marital Status | Married | 15 | 88% |
| | | Single | 2 | 12% |
| | Age | Under 30 years | 2 | 12% |
| | | 30 to 45 years | 12 | 70% |
| | | 46 years and above | 3 | 17% |
| | Education | Master's degree | 3 | 17% |
| | | PhD Candidate | 4 | 23% |
| | | PhD | 10 | 59% |
| | Work Experience | 5-10 years | 5 | 30% |
| | | 10-15 years | 10 | 59% |
| | | 15-20 years | 2 | 12% |
| | | 20 years and above | 0 | 0% |
| | Field of Expertise | Active professional investors | 6 | 35% |
| | | Managers and analysts of companies, investment funds, and brokerage firms | 5 | 30% |
| | | Faculty members | 4 | 23% |
| | | Regulatory managers and experts in neuroscience/neurofinance | 2 | 12% |
| Participants of the Quantitative Level | Gender | Male | 70 | 81% |
| | | Female | 17 | 19% |
| | Work Experience | Below 5 years | 4 | 5% |
| | | Between 5-10 years | 44 | 50% |
| | | More than 10 years | 39 | 45% |

## Results

Causal conditions refer to the specific incidents, events, or occurrences that precipitate the emergence or development of a given phenomenon. The phenomenon refers to the central issue or event around which the related actions and reactions are organized. In this research, the set related to causal conditions was categorized into five main categories, which are shown in the table below.

**Table 2. Open Coding and Concepts of Causal Conditions**

| Main Category | Subcategory | Concepts |
|---|---|---|
| Individual/Neuro-cognitive Factors | Behavioral Biases | Loss aversion, overconfidence, herding behavior, anchoring effect, confirmation bias |
| | Emotion Regulation and Neural Response | Emotional reaction to volatility, risk sensitivity, and hormone secretion related to trust |
| | Level of Financial Knowledge and Literacy | Inability to analyze information, insufficient financial education, excessive reliance on rumors |
| Institutional Structure and Regulation | Legal protection for investors | Weak enforcement mechanisms, inefficiency in compensation laws, and the absence of financial arbitration mechanisms |
| | Performance of Regulatory Authorities | Slow response to violations, dependency on political pressures, and weak oversight of brokerage firms |
| | Functioning of Intermediaries | Conflict of interest among brokerage firms, lack of transparency in advisory services, and weak professional ethics |
| Information Quality and Transparency | Access to Information | Lack of real-time data, delays in information release, and incomplete data |
| | Disclosure Transparency and Reliability | Selective disclosure, ambiguous reports, complexity of financial statements, data manipulation, conflicts of interest in reporting, and distrust in financial media |
| Capital Market Characteristics | Market Stability and Predictability | Severe index volatility, instability of trading regulations, and high transaction costs |
| | Liquidity and Efficiency | Trading halts, lack of market depth, and incomplete reflection of information in prices |
| Investor Experience and Collective Memory | Past Negative Experiences | Extensive losses in the 2020 crash, experience of price manipulations, and distrust in government decisions |
| | Individual and Social Learning | Transmission of negative experiences to others, crisis-induced pessimism, and reduced risk-taking by new generations. |

Source: Research Findings

According to Table 2, causal conditions fall into five main categories: individual/neural factors; institutional structures and regulation; information quality and transparency; capital market characteristics; and investor experience and collective memory. In this research, the axial category is the development of public trust among investors. The axial conditions are described in Table 3.

**Table 3. Open Coding of Axial Concepts**

| Main Category | Subcategories | Axial Concepts |
|---|---|---|
| Developing public investor trust | Investor Trust | individual trust level (cognitive, emotional), trust in the market and financial institutions, and social and cultural trust among investors |
| | Behavioral and neurological factors | Cognitive biases and errors (loss aversion, herding behavior, overconfidence), emotional reactions to market fluctuations, emotional regulation and self-control in financial decision-making |
| | Strategies and Actions | Institutional measures to increase trust, corporate behaviors and policies for transparency and accountability, education and empowerment of investors |

Source: Research Findings

According to Table 3, the axial category in the current study is the development of public trust of investors, which includes the subcategories of investor trust, behavioral and neurological factors, and strategies and actions.

The context refers to the specific set of characteristics related to the phenomenon. It means the location of events or incidents related to a phenomenon during a limited period. In this study, five main categories are described in Table 4.

**Table 4. Open Coding and Concepts of Contextual Conditions**

| Main Category | Subcategory | Concepts |
|---|---|---|
| Macroeconomic Conditions | Economic Stability and Policies | High inflation, exchange rate volatility, economic recession, unstable financial policies |
| | International Environment | Sanctions, global risks, exchange rate changes, and fluctuations in oil and basic commodity prices |
| Political and Legal Conditions | Political Stability | Frequent government changes, internal political risks, and external pressures |
| | Legal System and Regulations | Frequent changes in stock exchange laws, a lack of regulatory stability, and weak legal protection for investors |
| Social Capital and Trust Culture | General Level of Social Trust | Public distrust, the spread of financial rumors, and reliance on informal relationships |
| | Cultural Norms | Preference for advice from friends and acquaintances, preference for traditional investments, and a risk-averse culture |
| Technological Infrastructure and Information Access | Information Accessibility | Real-time information transparency, quality of information systems, and presence of reliable official sources |
| | Security and Technology Efficiency | Trading system outages and disruptions, low cyber security, and poor user experience in applications |
| Historical Experience and Collective Market Memory | Crisis Experiences | Market crash in 2020, widespread losses for small investors, and capital flight |
| | Social Learning | Transmission of negative experiences to new generations, excessive caution development, and the impact of painful memories on long-term trust |

Source: Research Findings

Based on Table 4, the contextual conditions include macroeconomic conditions, political and legal conditions, social capital and a culture of public trust, technological infrastructure and information access, as well as historical experience and collective market memory that shape the market.

General conditions that affect the nature of processes and strategies, and that intensify or weaken phenomena, constitute the intervening conditions in this study, as described in Table 5.

**Table 5. Open Coding and Concepts of Intervening Conditions**

| Main Category | Subcategory | Concepts |
|---|---|---|
| Institutional and Supportive Factors | Legal and Executive Support | Presence/absence of financial arbitration institutions, ease of legal follow-up, and guarantee of contract enforcement |
| | Regulator Performance | Speed of response by the stock exchange, independence from political pressures, and the ability to counter market manipulation |
| Educational and Informational Tools | Investment Education | Financial literacy courses, investment behavior training, and public awareness campaigns |
| | Media and Information | Transparency of financial media, combating rumors, and the presence of reliable information channels |
| Individual Characteristics of Investors | Cognitive and Emotional Skills | Ability to manage emotions, self-control in volatile conditions, and an individual's analytical level |
| | Personality Traits | Disposition towards trust or inherent skepticism, positive or negative personal experience, risk tolerance level |
| Social Networks and Informal Relations | The influence of peers and virtual groups | Following Telegram/Instagram channels, informal advice from friends and acquaintances |
| | Individual Social Capital | Personal networks in the market, trust in reference groups, and reliance on colleagues' recommendations |
| Macro Environmental Conditions | Unpredictable Changes | Sudden political/economic shocks, natural disasters or pandemics, foreign sanctions |
| | Collective Psychological Factors | Collective rumors, public excitement, waves of optimism or pessimism in the overall market |

Source: Research Findings

Based on Table 5, the intervening conditions consist of five main categories: institutional and supportive factors, educational and informational tools, individual characteristics of investors, social networks and informal relations, and macro environmental conditions.

Strategies are specific actions or interactions that emerge from the core phenomenon. In fact, strategies provide solutions for dealing with the phenomenon, meaning how to manage, approach, and accomplish tasks related to the main phenomenon. In this study, the strategies are described in Table 6.

**Table 6. Open Coding and Conditions Related to Strategies**

| Main Category | Subcategory | Component |
|---|---|---|
| Institutional and Regulatory Strategies | Enhancing Transparency and Disclosure | Requirement for understandable disclosure, rapid information updates, standardized financial reporting |
| | Investor Protection and Strengthening Supervision and Fraud Prevention | Establishment of compensation funds, swift legal follow-up, safeguarding minority shareholders' rights, tackling market manipulation, fining violating brokerages, and public announcement of offenders |
| Corporate Strategies (Corporate Governance) | Internal Transparency Management | Voluntary performance reporting, holding transparent general meetings |
| | Professional Ethics and Accountability | Management commitment to accountability, corporate social responsibility |
| Educational and Empowerment Strategies | Formal Education | Financial literacy courses for the public, risk analysis workshops, and online training |
| | Public Awareness | Media campaigns, simple brochures for new shareholders, and free counseling for small investors |
| Technology and Innovation Strategies | Digital Infrastructure Development | Fast and stable trading systems, secure applications, improved user experience |
| | Data Transparency | Real-time dashboards, AI risk analyzers, and blockchain to ensure transaction integrity |
| Individual Investor Strategies | Emotion and Bias Management | Emotion control in volatile conditions, avoiding herding behavior, and decision-making based on analysis |
| | Diversification and Risk Management | Creating diversified portfolios, using hedging tools, and avoiding overconcentration |

Source: Research Findings

As shown in Table 6, the main strategic category includes five subcategories: institutional and regulatory strategies, corporate strategies (corporate governance), educational and empowerment strategies, technology and innovation strategies, and individual investor strategies.

Outcomes refer to the outputs or results of actions or interactions. In this study, outcomes are categorized into four main groups: individual outcomes, investment outcomes, capital market outcomes, and institutional and macro outcomes, as presented in Table 7.

**Table 7. Open Coding and Conditions Related to Outcomes**

| Main Category | Subcategories | Components |
|---|---|---|
| Individual–Neuro/Behavioral Outcomes | Improvement of Investor Cognition and Emotion | Reduction of behavioral biases (loss aversion, overconfidence, herding behavior) |
| | Improving Emotional Regulation in Volatile Situations | Increased self-control in decision-making |
| | Improving Personal Trust | Increased sense of mental security, increased willingness to invest long-term, reduced fear of risk. |
| Investment Outcomes | Increased Investor Participation | Entry of new retail investors, return of former investors, and stable market presence |
| | Improved Investment Patterns | Portfolio diversification, use of hedging tools, preference for analytical over emotional investment |
| Capital Market Outcomes | Enhanced Market Efficiency | Reduction of irrational volatility, better information reflection in prices, and improved liquidity |
| | Increased Market Stability and Depth | Growth in trade volume and value, reduced capital outflow, and increased attraction of new capital |
| | Improved Market Transparency and Health | Reduced manipulation, higher disclosure quality, strengthened corporate accountability. |
| Institutional and Macro Outcomes | Strengthening Credibility of Financial Institutions | Increased public trust in the stock exchange, enhanced position of regulatory authorities, and increased legitimacy of investment advisors |
| | Macro Economic Development | Attracting investment for production, reducing capital flight, and improving the international image of Iran’s capital market. |

Source: Research Findings

In this research, taking into account initial studies and interviewees' opinions, and analysing the collected data using the Grounded Theory method, the proposed model, derived from the census of the main concepts, is presented in the following figure.

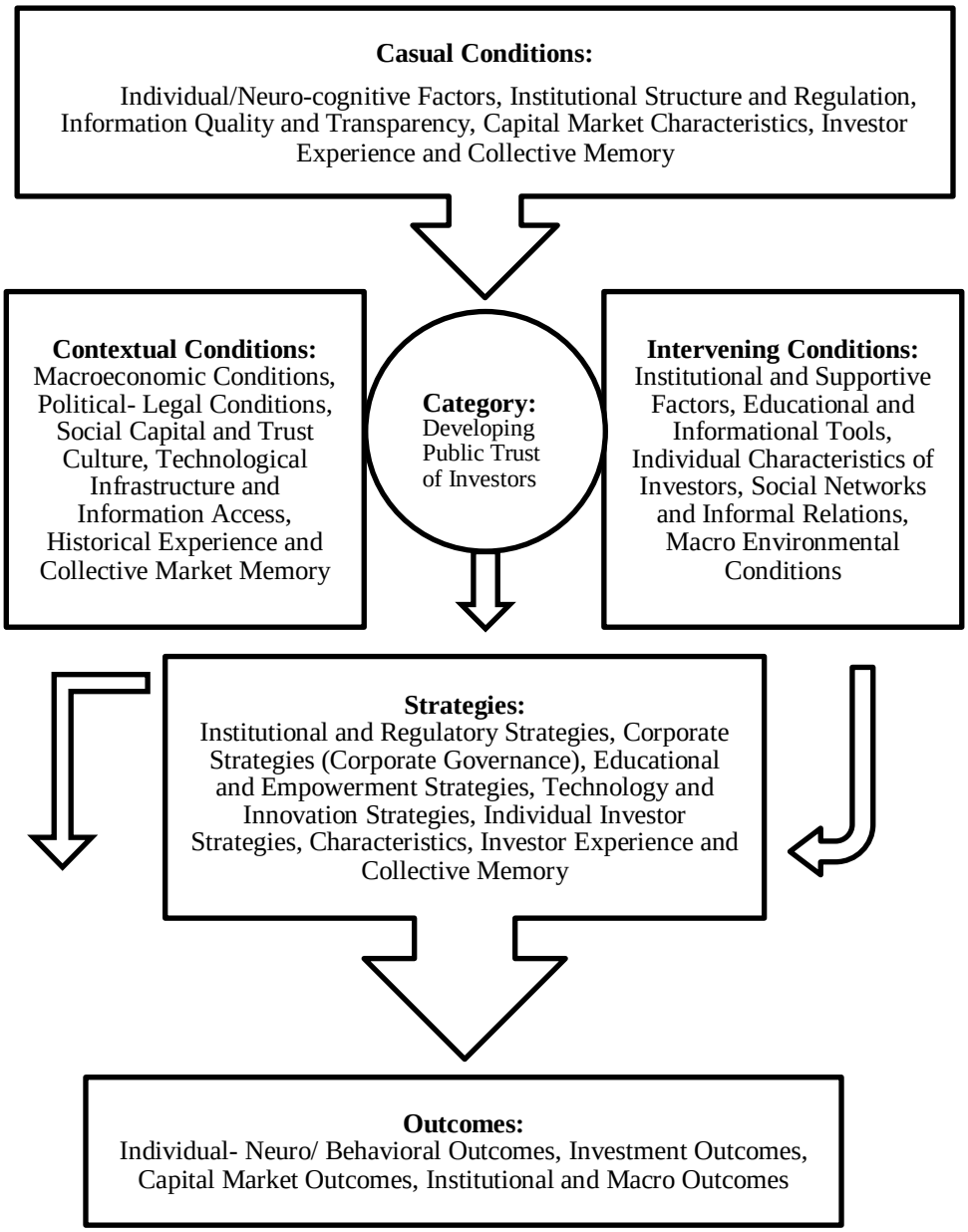


**Figure 1. Neurofinance-Based Model for Developing Public Investor Trust**

The Delphi method was used as the qualitative validation pattern. The goal of this step is to evaluate and refine the list of main and subcategories using a consensus method, such as the Delphi, Fishbowl, or Telstar methods. The chosen method for this research is the Delphi method.

The Delphi method is a valid empirical approach to achieve group consensus when the required information is abstract (mental) and participants cannot be physically present at a single location for a meeting. In this study, during the first stage, the list of categories, subcategories, and concepts was provided to experts for their feedback. In the second stage, the collected set of factors was given to the second group of experts.

Finally, the subcategories and concepts with the highest average ratings from the experts were selected. In this study, the Delphi method involved 19 participants, consisting of experts and university professors, and the questionnaire was sent to them via email. In the first stage, the list of components, causal conditions, contextual conditions, intervening conditions, strategies, and outcomes related to the development of public investor trust was provided to these individuals to express their opinions using a Likert scale. Therefore, to determine the significance of the extracted categories using the questionnaire, the Binomial test at the 0.05 level was utilized. To apply this test, the data values needed to be classified into two groups. Thus, the responses of very low, low, and no opinion were placed in the first group ($\leq$ 0.3), and the responses of high and very high were placed in the second group ($\geq$0.3).

**Table 8. Conceptual Propositions Related to the Concepts Obtained from Delphi**

| Concept Title | Probability Observed | | | | Sig |
|---|---|---|---|---|---|
| | Group one: $\leq 0.3$ | | Group two: $\geq 0.3$ | | |
| | Count | Percentage | Count | Percentage | |
| Causal Factors | 4 | 20 | 15 | 80 | 0.03 |
| Contextual Factors | 4 | 20 | 15 | 80 | 0.03 |
| Intervening Factors | 2 | 10 | 17 | 90 | 0.000 |
| Strategies | 2 | 12 | 17 | 88 | 0.005 |
| Outcomes | 2 | 13 | 17 | 87 | 0.007 |

Source: Research Findings

Based on the results of the Binomial test in Table 8, all main categories are significant at the 0.05 level. Therefore, the above dimensions were considered as the components of public trust development among investors; specifically, Intervening Factors with 17 counts (90%), Strategies with 17 counts (88%),

and Outcomes with 17 counts (87%) are determined as the most effective components in public trust development, respectively.

In order to validate the qualitative model extracted from the grounded theory, structural equation modeling based on partial least squares (PLS-SEM) was used.

In the first step, the validity of the constructs was examined through confirmatory factor analysis (CFA). The results showed that all indicators have factor loadings greater than 0.5 and t-statistics greater than 1.96 at the 5 per cent significance level. Therefore, all items accurately measure the relevant constructs. The instrument's reliability was also assessed using Cronbach's alpha and composite reliability (CR), and all constructs had values above 0.7, indicating internal consistency and validity of the measures.

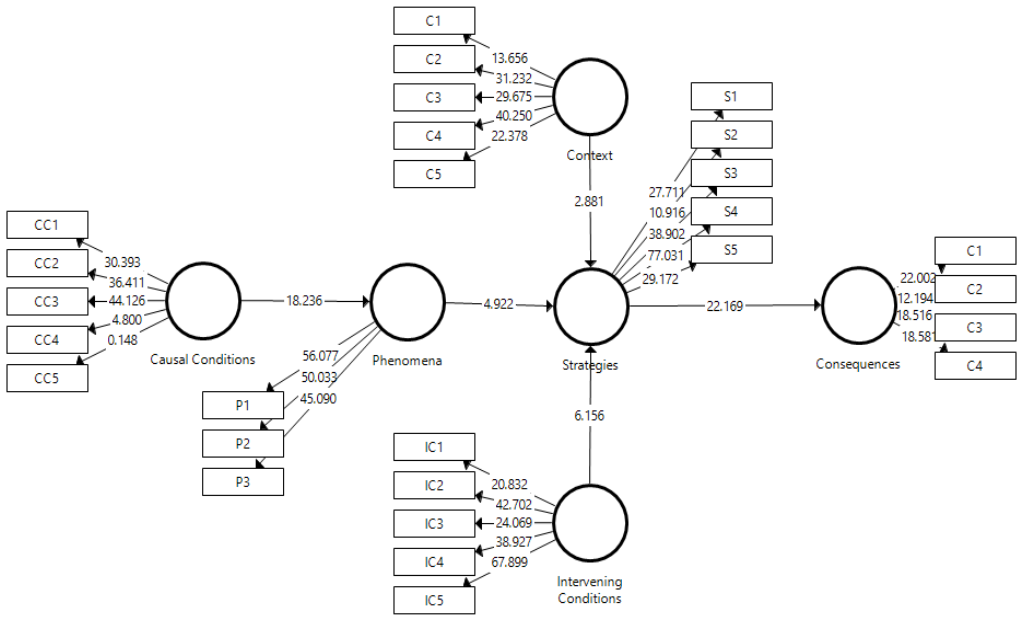


**Figure 2. Measurement Model in Overall Significant Mode**

Later, the structural model was analyzed to test the causal relationships among the constructs. The findings showed that all model paths have favorable statistical significance. The effect of causal conditions (individual-neural factors, institutional and regulatory structures, information quality and transparency, capital market characteristics, and investors' collective memory) on the axial coding was confirmed with a t-statistic of 18.2 at a 99 per cent

confidence level. In addition, the impact of the axial coding on institutional, corporate, educational, technological, and individual strategies was reported to be significant, with a t-value of 4.9. Contextual and intervening conditions also had a significant effect on the model, with t values of 2.88 and 6.15, respectively. Finally, the effect of strategies on the model outcomes (individual, investment, capital market, and institutional-macro outcomes) was confirmed with a t value of 22.16.

The results of structural equation modeling showed that all model paths have high statistical significance and the model fit indices are within acceptable ranges. This indicates that the causal structure among the identified variables has been correctly estimated and explained. In other words, the conceptual model derived from the data-based approach has strong empirical support, sufficient statistical validity, and can explain the mechanisms of the formation and development of public investor trust in the Iranian capital market in a causal and systematic manner.

The results of the study indicated that public investor trust is the outcome of a dynamic interaction among neurobehavioral variables, institutional and regulatory structures, information quality, environmental conditions, and multi-level strategies (individual, organizational, and institutional). Confirmatory factor analysis showed factor loadings above 0.5 and t-values greater than 1.96 for all constructs. Cronbach's alpha and composite reliability exceeded 0.7, confirming the validity and reliability of the measurement model. Structural model analysis indicated that all hypothesized paths were significant: causal conditions on axial coding ($t = 18.2$), axial coding on strategies ($t = 4.9$), contextual and intervening conditions ($t = 2.88$ and $6.15$), and strategies on outcomes ($t = 22.16$), all $p < 0.01$. The model fit indices were within acceptable ranges, confirming the empirical validity of the neurofinance-based model. These findings provide a robust basis for formulating effective policies to enhance transparency of information, corporate governance, and social capital in the Iranian capital market.

## Discussion and Conclusion

The findings of this study indicated that three categories of key factors influence public trust of investors in Iran's capital market:

Causal factors: Investors' cognitive and emotional biases (such as loss aversion and overconfidence), quality and transparency of information, institutional structure, and historical experiences of past crises

Contextual factors: Macroeconomic conditions (inflation and exchange rate fluctuations), political and legal stability, social capital and culture of trust, demographic characteristics of the investors, and technological infrastructure

Intervening factors: The role of regulatory and support institutions, media and social networks, the level of financial education and empowerment of the investors, and the quality of trading systems

To address these challenges, a set of strategies was identified: enhancing transparency and professional ethics, supporting small investors, developing technological infrastructure, educating and empowering investors, and strengthening corporate governance. Implementing these strategies produces outcomes at three levels: at the individual level through reducing behavioral biases, improving emotional regulation, and increasing the sense of security; at the market level through enhancing participation, liquidity, and market efficiency; and at the macro level through strengthening financial social capital and supporting economic growth.

These findings align with classical and modern research; including Kahneman and Tversky (1979) and Guedj and Bouchaud (2004) who confirmed the role of cognitive and neurofinance biases in investment decision-making, and Mishkin (2015) who emphasized the importance of information transparency. In addition, the results related to social capital and economic stability align with the studies of Putnam (2000) and Norman (2019).

However, the present research revealed that, in the Iranian market, collective experiences of crises (including the severe 2020 crash) strongly affect trust. Additionally, the roles of demographic characteristics and technological infrastructure are more prominent in the present study than in many developed markets, which is considered a distinguishing feature of the present study.

This study, by combining neurofinance theory with Grounded Theory, has developed a native model aligned with the conditions of the Iranian market, with a focus on the collective memory of crises and its effect on trust, which has been less explored in the domestic literature so far. The presented model can be used as a practical guide for various institutions, as stated as follows:

The stock exchange organization and regulatory authorities: Strengthening transparency and disclosure, supporting small investors, and combating market violations. Brokers and financial institutions: Providing professional advice, managing investors' emotions, and promoting professional ethics. Economic policymakers: Creating economic and political stability as a prerequisite for sustainable trust in the capital market. Media and educational institutions: Developing financial literacy and responsible information dissemination to manage investors' expectations.

Ultimately, this research showed that public trust in investors is a multi-level, multi-factor phenomenon that can only be rebuilt and sustainably strengthened by simultaneously considering individual, institutional, and macro factors and by implementing coordinated strategies. The proposed model integrates neurofinance mechanisms with behavioral, institutional, and contextual factors. The presented model, in addition to providing a scientific explanation, can serve as a basis for policymaking, educational program design, and the development of capital market tools in Iran.

## Declaration of Conflicting Interests

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

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