



Stock Price Momentum Modelling: A Grounded Theory Approach

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ABSTRACT

Recently, understanding the anomalies in financial markets have severely challenged the efficient market hypothesis (EMH). The price momentum is one of the anomalies described as the unexplained short-term return by Fama and French 1996. The present research strives for modelling the price momentum of winner stock in the Iranian capital market. The grounded theory method was used to explain this phenomenon. To this end, in-depth interviews were held with 32 experts operating in the professional and academic fields in 2018. The collected data was encoded in three steps, and the results were presented as a conceptual paradigm. The research findings identified the momentum causal factors in the behavioural level, the background factors in the social, macroeconomics, and market levels, the intervening factors in the global economics, macroeconomics, market, and company levels, and the strategies in the social, macroeconomics, market, the investment and finances institutions, and consequences factors in market level. The research findings suggest that the winner stock price momentum phenomenon should not be considered a speculation opportunity. Rather, it is an anomaly that has to be regulated with the proposed strategies according to the experts. The consequences of the adoption of these strategies include the stable and normal income for the market actors, the decrease in the loss inflicted on natural persons due to the market volatility, the management of anomalies, more effective attraction and allocation of liquid capitals, the reduced credit risk of brokerages, and the acceleration of liquidation in the market.

1 Introduction

The neoclassical economics theory and economic human model set the scene for numerous opposing studies that led to the dawn of a new field known as behavioral economics and behavioral finance. Kahneman and Tversky's prospect theory [42] and Thaler and Shefrin's self-control theory [59] are prominent early examples of theories developed in this area. Studying the behavior of people at the time of making economic and financial decisions is the main goal of researchers in this new field. To prove their findings, behavioral economists have resorted to experimental studies on person decisions and behavioral finance academics choice studies on investors behavior because of the availability of organized data of financial markets. The results of almost four decades of research on human behavior show that we should not be pessimistic about behavioral studies as these revisions have a greater po-

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tential for explaining phenomena as compared to the classic economic models. Understanding the anomalies of the capital market are a behavioral finance achievement that has garnered the attention to many researchers. Stock price momentum is one of the market anomalies originally introduced by Jegadeesh and Titman [36]. Thereafter, many studies have been carried out to prove this phenomenon. Besides, the active inertia in winning the past winner stocks and losing the past loser stocks in the future is currently addressed to the literature. This inertia and the fact that continuity is rooted in the winner or loser state of stocks has also been researched and explained sporadically in the literature. Although many researchers e.g. [10, 23, 32, 34, 36-37, 40-41, 44, 46-47, 49, 55, 58] have unveiled the correlation between some factors and profitability in the momentum strategy, they have failed to explain the reason for momentum profitability and have described it as a “puzzle” or “an unexplainable phenomenon”. Therefore, there is no single model or theory to explain this phenomenon. The qualitative grounded theory approach is adopted in this study to model and explain the winner stock momentum in the Iranian capital market. In fact, the innovation of this research is to provide a theoretical model for explaining why the momentum phenomenon works in the Iranian capital market. Explaining the model by using grounded theory research can give useful information to the spectrum of market users about identifying and controlling anomaly behaviors including the momentum phenomenon. It can also enrich the research literature on causal, background and intervening factors of momentum which increase or decrease this phenomenon.

2 Research Background

The profitability resulting from the implementation of the momentum investment strategies has been a hot topic in the capital asset pricing literature. The momentum investment strategies have applications of the capital market as well as other financial markets such as the foreign exchange market [12, 50, 54], the commodity market [51,29], security bonds market [25,29], deposit market [59], and real estate market [14], which have been widely explored. According to this strategy, an investor buys a stock he won in the past and sells the stock he lost in the past. Many studies [30, 36, 49, 57] confirmed the profitability of using the momentum strategies. Moreover, the origin of momentum profitability has been analyzed from two viewpoints in the research literature. One of them is the risk-based approach, which revolves around the capital assets pricing models in neoclassical finance. The advocates of this approach [13] believe momentum profitability is the result of high risks, while the profit resulting from the adoption of momentum strategies grows proportionally with an increase in the share of the risk. However, Jegadeesh and Titman [36, 39] regulated risks in the three-factor capital assets pricing model proposed by Fama and French similar to the studies by Fama and French [22] and Grundy and Martin [27]. In all these studies, the momentum strategy alpha was positive, indicating that the sectional difference in risk cannot explain momentum profitability. This approach is the opposite of the behavioral approach. In these models, momentum is rooted in the positive auto-correlation of stock return, which originates from the improper reaction to information. In this regard, Barberis, Shleifer and Vishny [5] indicated how conservatism, as an anomaly, can result in interaction to information on the creation of momentum profitability. Conservatism was introduced by Edwards [20]. He believes investors tend to assign lower weights to new information and news. In this regard, Hong and Stein [32] believe the momentum return results from the investors' interaction to information. On the other hand, Daniel, Hirshleifer, and Subrahmanyam [17] introduced overconfidence and prejudice in self-confirmation as the reasons for the momentum strategy profitability. The regulation and momentum problem introduced by Kahneman and Tversky [42] and Kahneman [43] encouraged George and Hwang [45] to propose an alternative momentum strategy based on the proximity of current prices to the highest price in the past 52 weeks. This strategy is created through the purchase of stocks at the

current price, which is similar to the highest price in the past 52 weeks, and the sale of stocks at the current price, which is different from the highest price in the past 52 weeks. They argued that the continuation of the stock return is determined by the stock information on the past 52 weeks due to the misbehaviour of investors. Stambaugh, Yu, and Yuan [57] believed behavioral biases originate from the investors' emotional tendencies because emotional traders influence the market more in highly stressful periods. As a result, emotional tendencies caused by investors' behavioral bias can be a predictor of the anomaly risk of asset pricing. Antoniou, Doukas and Subrahmanyam [2] stated that the profitability resulting from price momentum varies by the different emotional states of investors. Similarly, Hao, Chu, Ko, and Lin [30] indicated that momentum investors obtain more return in the optimistic periods as compared to the pessimistic periods. Blitz, Huij and Martens [7] expanded Hong and Stein's [32] information diffusion theory and showed that investors show less reaction to the company's special data as compared to the general price data. They presented the residual momentum strategy by ranking stocks based on the residual returns to the three-factor model estimated by Fama and French [21] and showed that the profitability of the residual momentum strategy is highly risky. In the research literature, the following factors are introduced as the determinants of momentum: business cycles [1,13], monetary policies [28,30], the role of the industry [48], state of the market [16], information uncertainty [4, 36, 39, 47, 63], corporate innovation [61,57], systemic risk [23,62], , stock liquidity [6,18], company size [11,49], industry type [8], real investor [53,35], dividends [3,24], media role [31], investor's optimism [2,30], underreaction [38], overreaction [32], and investor group behavior [9,19]. An example of the experimental research literature is presented hereunder. Jegadeesh and Titman [38] studied the performance of the price momentum strategy with three- to twelve-month formation and preservation periods. They used the compare means statistical method to test the research hypotheses and indicated that buying the winner stock and selling the loser stock can cause an abnormal return to approximately 1%. They drew this conclusion by creating portfolios based on the past stock price return to 1965 to 1989. Cooper, Gutierrez, and Hameed [16] analyzed the relationship between the momentum strategies and market state from 1929 to 1995. They used panel data and the regression method to test the research hypotheses. They reported that on positive market state and the negative market state, the winner stock return decreases by 0.93 and 0.37 on a monthly basis, respectively. Their findings do not, however, confirm the profitability of the momentum resulting from the positive market in the long-run. Kim, Roh, Min, and Byun [42] studied the momentum strategy profitability with an emphasis on the business cycles variable from 1960 to 2012. They used the regression method and panel data to test the research hypothesis. According to their findings, the expected return to the winner stock is higher than loser stock in the state of economic prosperity. However, in the depression state, the expected return of the loser stock is influenced more than the winner stock. Hao, Chu, Ko, and Lin [30] analyzed the relationship of momentum strategies with investors' emotional tendencies from 1978 to 2011. They used panel data and regression analysis to test the research hypotheses. Their findings confirmed the profitability of the momentum investment strategies. Furthermore, momentum strategies in optimistic periods yield more profitability than pessimistic periods. Sarwar, Lin, and Muradoğlu [56] explored the effect of business cycles and credit risk on momentum returns from 1985 to 2011. They tested the research hypotheses using panel data and the multiple regression model. The results of their study not only confirmed the profitability of the momentum investment strategies but also indicated that momentum profitability results from ranking stock credit risks in business cycles. As seen in the experimental research background, the studies carried out on this subject matter have analyzed the correlation between the stock price and one or several factors instead of using a descriptive model. Secondly, the studies have been carried out with the quantitative research method and the existing theories by testing those theories rather than discovering categories

and concepts to explain a phenomenon with the inductive-exploratory approach. Finally, the studies on price momentum have not a comprehensive consensus about the determinants of stock price momentum. Hence, solving these problems with a conceptual model of the causal, background, intervening, strategic, and consequential relations is the innovation of this study.

3 Research Methodology

First of all, we mention the research questions that we are going to deal with. There are three main questions as follows.

1. What components do explain the price momentum in winner stock phenomena?
 - 1.1. What causal components do explain the price momentum in winner stock phenomena?
 - 1.2. What intervening components do explain the price momentum in winner stock phenomena?
 - 1.3. What background components do explain the price momentum in winner stock phenomena?
 - 1.4. What strategic components do explain the price momentum in winner stock phenomena?
 - 1.5. What consequential components do explain the price momentum in winner stock phenomena?
2. How are the determining components connected and based on what logic?
3. What model does define these relations?

In this study the grounded theory method was used to explain momentum phenomenon. The grounded theory approach is an inductive-exploratory method of applications for different areas. Unlike the common approach to the assessment of hypotheses and theories, this approach defines the propositions and theory of grounded approach. The propositions and theory are formulated with a systemic approach using the data extracted from the actual world. The term “grounded” suggests that each theory or proposition resulting from this method is based on a ground of actual data. The most important application of this method is where there is no comprehensive explanation of a phenomenon or there is limited knowledge of a phenomenon. In this research, the aforementioned qualitative method is used considering the limited and scattered explanations of the stock price momentum to explain this phenomenon in the Iranian stock market. In this study, the theoretical sampling technique was used to collect the data in line with the grounded theory approach. Corbin and Strauss [15] consider theoretical sampling to be a data collection approach that was designed based on the emerging concepts and revolves around the notion of “comparison”. They defined comparison as the process of approaching places, people, and events that maximize the likelihood of discovery and enrich the concepts and categories.

Therefore, the present research data was collected by holding in-depth interviews for the experts on the capital market. In the theoretical sampling technique (snowball sampling), samples of the highest capacity for reasoning and explaining the subject matter are selected. Sampling and interviewing continue until the concepts and categories reach the point of saturation. In this study, the researcher identified to duplicate concepts in the twenty eighth interview, which reflected the saturation of the study. However, he interviewed four other participants and the resulting concepts finally confirmed the conclusion. Therefore, the research sample included 32 experts active in the capital market of 2018. The interviewees’ information is listed in Table 1.

Table 1: Interviewees' Information

Interviewee	Quantity	Education		Work experience	
		Master's degree	Ph.D.	Below 15 years	Above 15 years
Broker management	8	5	3	6	2
Fund manager	6	4	2	5	1
Hedge fund manager and investment counselor	2		2	1	1
Analyst operating in the financial and investment institute	3	2	1	3	
Investment manager of a financial and investment institution	6	4	2	5	1
Faculty member and capital market activist	7		7		7
Total	32	15	17	20	12

In the grounded theory qualitative method, open cod is carried out after each interview to discover the concepts and categories. The open, axial, and selective cod processes are the pivotal steps in the present research method. In step two, i.e. axial cod, the main or axial category, which is linked to other categories and forms the core of the discussion, is identified and the relationships of the categories are explained thereafter. In the last step, selective cod is carried out to design a model of the axial phenomenon and explain the logic of the relations of the categories.

4 Research Findings

In the qualitative approach adopted in this study, the content of the interviews (research data) is encoded in three steps and the results are presented hereunder. In practice, the content of each interview was precisely analyzed following each interview to extract the concepts from each sentence and interpret them. Afterward, the next interview was done. This process continued until theoretical saturation was achieved. Theoretical saturation suggests that the recent interviews reveal no new data and provide repeated data. In this research, theoretical saturation was confirmed logically in thirty second interviews. A total of 121 concepts were also extracted from the interviews. Part of the content of an interview held with one of the interviewees (a faculty member and capital market activist) is encoded with the open cod approach from the following. "Momentum shows the rate of the decrease or increase in the price of a stock unless another factor prevents it from changing. I believe this factor is crucially influential (i.e. the severity of momentum in the capital market) because people believe a stock that was good for the past will be good today and tomorrow. On the other hand, they think if a stock caused loss, showed a descending trend, or lost in the past, it will continue to lose in the future. In fact, those who are optimistic about a stock are those who have benefited from it in the past. As a result, they have a positive image of that stock and are interested in experiencing the return once again. However, this is not true in practice. In other words, a stock that was a winner in the past months or weeks may not continue to win in the future (hindsight). Besides, people generalize events from the psychological point of view. For instance, when a stock causes loss, they try to avoid that

stock because it has caused them damages once (law of small numbers). Emotions are part of human behaviours and no one can avoid them. I mean momentum is inevitable. It may be reduced but it cannot be eliminated (the unavoidable momentum of human behaviors). Momentum can be mitigated through accurate financial reporting, providing information on the companies' websites, and improving the organization's website (quantity and quality of the disclosed reports). After open cod, which reveals the initial concepts, the concepts with the highest similarity are consolidated into a more general concept known as a category. Therefore, the more similar and overlapping concepts are consolidated into more general categories. For instance, concepts such as the base volume, the volatility range requirement, the trading halt requirement, and conferences on transparency are consolidated into the supervisory institution's requirements category.

Table 2: Examples of the Extracted Concepts, the Categories, and Their Levels

Level	Categories	Concepts
Behavioral	Hindsight	Repeated past in the future
		Anchoring in a certain industry and stock
		Positive memory of gaining profit in the primary offering
		The law small numbers and generalization
Expecting massive return in the short-turn from the capital market	Axial category	Short-term winner stock price momentum
Intensity of momentum in the market		
Abnormal return in the market		
Positive autocorrelation of the stock price		
Unavoidable human behavior momentum		
The majority of the advocates of the winner stock in the market		
Failed sales of loser stock	Behavioral	Loss aversion
Fear of loss-induced distress		
Mental adaptation to the circumstances		
Punishing the criminal celebrities on Telegram	Market level	Decisive punishment of violators by the supervisory bodies
Punishing illegal actions		
Setting up investment committees	Investment and financial institutions	Setting up investment committees
Global price of metal	Global economy	Global price of commodities
Global price of oil		
Global price of energy		

In some cases, the concept itself is used due to the lack of a more general concept for a category. For instance, the effect of withdrawn money is a concept and a category at the same time. The second broader concept is behavior, which cannot be considered as a category because it is a general level similar to the macroeconomics or market levels. Finally, 121 concepts are extracted and put into 62 categories. Table 2 presents examples of the concepts and categories, and their levels. Afterward, axi-

al cod is carried out to determine the association for each category with the main axes (the causal, background, intervening, strategic, and consequential factors), and the axial category that is the pivot of the relationships of a model is identified. One of the categories identified with the previous step, the “short-term winner stocks momentum price phenomena” are selected as the axial category, which is at the center of the model. This category is the category that can be linked to other categories and its effect on the majority of the data is evident. Finally, the researcher establishes a unique link between the categories and the core category through selecting cod to present the resulting theory based on the link. In this study, the formulated theory is presented as a diagram. Based on the paradigm presented in Diagram 1, the causal momentum factors of the behavioral level, the background factors of the society, macroeconomics, and market levels, the intervening factors on the global economy, macroeconomics, market, and company levels, and the strategies on the society, macroeconomics, market and investment/financial institutions, and market outcomes were identified.

5 Extra Discussion

Analyzing anomalies in human behaviors, especially at the time of making financial decisions, has led to the creation of a new field known as behavioral finance and economics as opposed to the neoclassical economic and the modern finance theory. The neoclassical economics models consider humans to be wise individuals. In the modern finance theory, the efficient-market hypothesis is formulated based on this concept. However, the experimental results reported by empiricists such as Kahneman, Thaler, and other researches in this field indicated that often normal humans commit behavioral finance biases. In financial markets, more studies have been carried out on this subject matter due to the availability of data onto the stock exchange companies. One of most referred to studies on this subject matter was the study by Jegadeesh and Titman [35] on the winner and loser stock momentum. Analyzing anomalies in human behaviors, especially at the time of making financial decisions, has led to the creation of a new field known as behavioral finance and economics as opposed to the neoclassical economic and the modern finance theory. The neoclassical economics models consider humans to be wise individuals. In the modern finance theory, the efficient-market hypothesis is formulated based on this concept. However, the experimental results reported by the findings from this study contradicted the efficient-market hypothesis. The price momentum phenomenon made many researchers to re-search it. The momentum literature has mirrored the existence and strength of momentum in the past three decades in practice. Fama and French [22] proved the existence of momentum in their factor model, but they failed to give the explanation that could protect the strong bases of their efficient-market hypothesis. Hence, a localized explanation of the winner stock momentum phenomenon, which is basically contradictory to the efficient-market hypothesis, is provided in this study. Moreover, the paradigm revolving around the momentum phenomenon was presented with the grounded theory qualitative approach from 2018. In this model, the primary and root factors leading to the winner stock price momentum is the human behaviors. An excellent example is the investors’ hindsight whereby investors look at the past to select stocks. They are interested in buying the winner stocks, selling the loser stocks and expect the past trends in the future.

This dominant behavior results in the winner stock price momentum as well as other normal human biases such as herd behavior, the effect of available information, the deposit effect, optimism, and inflation illusion, which exacerbate the situation. Besides, the preservation of the status quo is an anomaly that plays a major role in the continuity of momentum inertia. This behavior results in interaction among the advocates of the motive winner stock, delaying its fall. Conservatism and loss aversion also deliver the same functions. Because of these factors, the individuals do not sell a stock after hearing negative news, which results of continued momentum and delays in stock fall. In business

environments, causal factors may function differently.

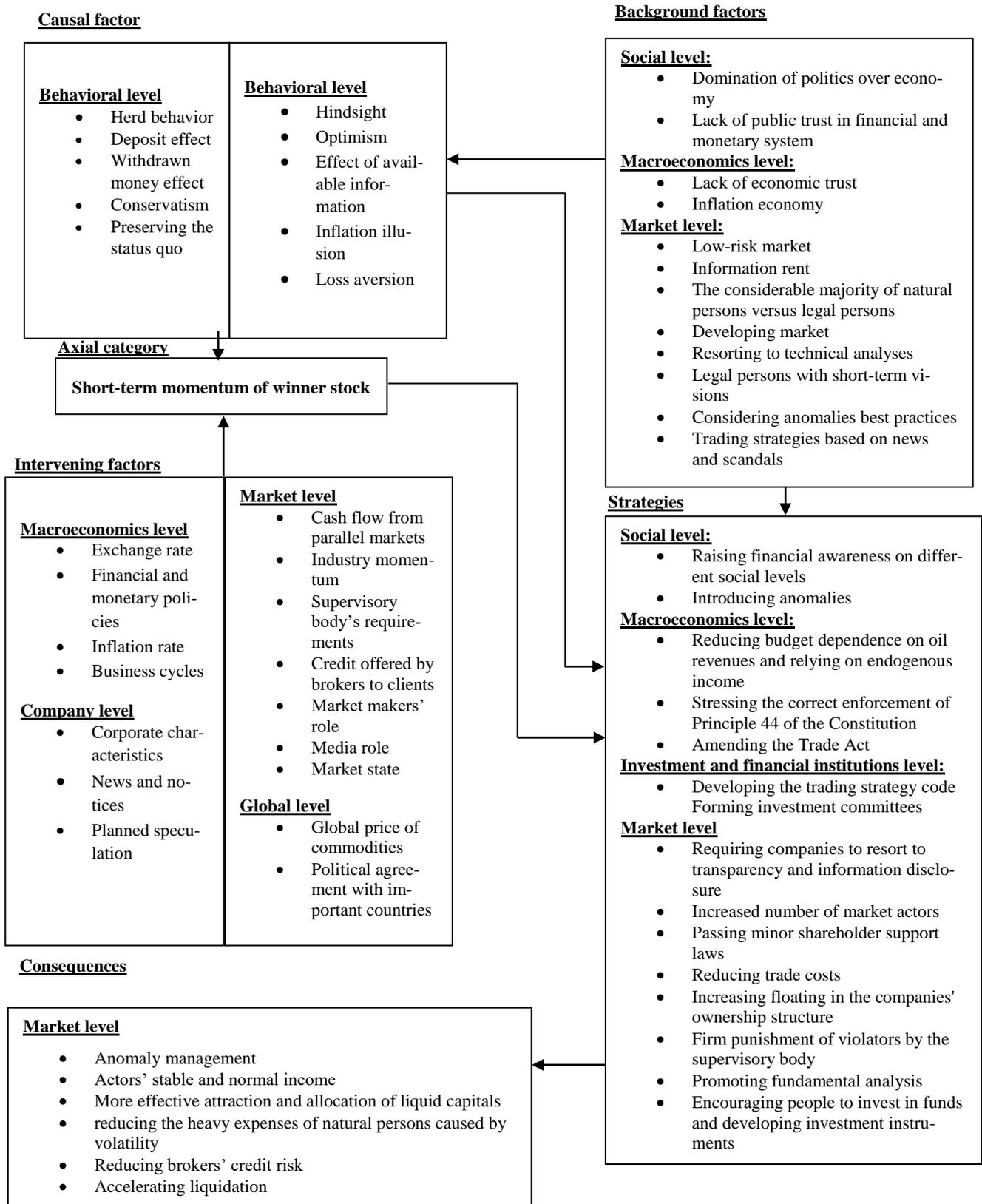


Fig. 1: The Research Paradigm Based on the Grounded Theory

For instance, the inflation illusion is an emotional behaviour rooted in the inflation economy and its uncertainties. Developing market (or a poorly efficient market) also explains many human biases. Experts believe behavioural biases are committed more in inefficient and poorly efficient markets. From the behavioral point of view, in the research background, Antoniou, Doukas and Subrahmanyan [2] and Hao et al. [30] introduced investors' optimism, Jegadeesh and Titman [38] introduced investors' interaction, Hong and Stein [32] introduced investors' overreaction, Brown, Wei and Wermers [9] and Demirer et al. [13] introduced investors' group behavior, and Barberis et al. [5] introduced conservatism as the factors influencing stock price momentum. These findings comply with the findings from this research. According to the other research findings, there are intervening factors that can exacerbate or regulate the winner stock momentum. For example, on the global economic level, the global price of commodities and agreements with important countries can influence momentum. On the macroeconomic level, intervening factors such as exchange rate, monetary and financial policies, inflation rate, and business cycles can exacerbate or regulate momentum. In the studies by Chordia and Shivakumar [13], Sarwar et al. [56], Goebel et al. [28], and Hao et al. [30] monetary policies were introduced as the determinants of price momentum. The market also has intervened categories such as the inflow of cash from parallel markets, industry's momentum, supervisory bodies requirement, credits offered by brokers to clients, the role of market makers, the role of the media, and the market state, which influence the axial phenomenon. Cooper et al. Gutierrez, and Hameed [16], Asem and Tian [3], Hao et al. [13] introduced market state, Hillert et al. [31] introduced the media role, and Liu and Zhang [48] introduced the industry's role as the factors influencing the price momentum. These findings comply with the findings from the present study. On the corporate level, factors such as the company's characteristics, news, notices, and plan speculation can determine the intensity or regulation of price momentum. Planned speculations about a certain stock form an evident characteristic of the Iranian capital market. These speculations, which are sometimes considered offenses and immoral actions by experts, result from the information uncertainty in the market, in general, and the lack of information symmetry in companies, in particular. The following suggestions are offered to solve this problem: 1) increasing the floating stocks in firm's ownership structure, 2) increasing the number of market actors, 3) firmly punishing such offenses, and 4) obligatory transparency and disclosure of information by companies. Some of the factors form the advantages of motive stock and draw the attention to investors. These factors include innovation, exclusive production, good reputation of the management team, export-oriented corporation, raw material companies, high dividend ratio, high liquidity, and profit momentum. Notices and news on Codal.com and other news resources can also affect the winner stock momentum. Asem [3], Fuller and Goldstein [24] introduced the dividend ratio, Demir et al. [18] and Bettman et al. [6] introduced stock liquidity, and Vassalou and Apedjinou [61] and Turner et al. [60] introduced innovation as the factors determining the price momentum, which is in line with our findings. Fuertes, Miffre and Tan [23] introduced high systemic risk and Wu [62] introduced small company size, while Moskowitz and Grinblatt [52] and Chan [11] introduced other corporate factors influencing the stock price momentum. These findings also comply with the findings from the present study.

6 Conclusions

The present research indicated that continuous winner stock price momentum attracts swing traders and speculators. However, it is a negative intolerable challenge to the market development vision which has to be managed and reduced. Hence, the specialized interviewees introduced strategies centered on the correction of anomalies, in general, and stock price momentum, in particular. Hence, the research automatically striven for correcting anomalies rather than abusing the opportunities for the

personal interests in speculators and swing traders. Hence, the momentum regulation strategies were developed on the social, macroeconomics, investment/financial institutes, and market levels. For example, on the social level, raising awareness is an essential strategy that has not garnered adequate attention. The adoption of this strategy can regulate platforms such as the inadequate financial knowledge of the market and trading strategies based on the news and rumors, which are directly or indirectly considered the consequences of the managing anomalies. On the macroeconomic level, reducing the budget dependence on oil revenues, relying on endogenous incomes and stressing the correct enforcement of Principle 44 of the constitution is strategies that result in the replacement of authoritarian economy (which manifests information uncertainty and rent) with private free economy. These strategies can lead to the attraction of liquid capitals (due to the public trust in the economy) and mitigation of heavy losses (due to the decrease or elimination of information rents). The research findings also suggested strategies on the investment and financial institutions level such as the development of the trading strategy code and formation of investment committees. Experts believe the implementation of these strategies results in consultative decisions in accordance with plans. Moreover, due to the high volume of order placement transactions in these institutes, the consequence of anomaly management is observed. On the market level, important strategies are proposed by experts, which lead to the efficiency and development of the market, in general, and acceleration of liquidation, management of anomalies, stable normal income of actors, more efficient attraction and allocation of liquid capitals, mitigation of heavy losses of natural persons due to market vitality, and mitigation of brokerage credit risks. For instance, increasing the number of market actors (as a strategy) can lead to the attraction of liquid capitals and acceleration of liquidation. The strategic categories including the transparency and disclosure requirement, approval of laws to support minor shareholders, and firm punishment of criminals by supervisory bodies regulate the information symmetry platforms and prevent immoral acts of planned speculation. These categories can also contribute to the decrease in the heavy losses experienced by natural persons and brokers' credit risks. Although the brokers and other stakeholders find the trading cost reduction strategy to be undesirable, more transactions on the companies' stocks are carried out with this strategy, considerably improving the market self-balance. The outcome is the stable and normal income of the actors. As stated, the proposed strategies can generally result in market development, which not only regulates the anomalies (e.g. partial momentum, which is a core phenomenon) but also has more evident consequences.

Practical suggestions for each institution in the society are presented in the following based on the research results and in line with the proposed model strategies.

- Schools, universities, the Securities and Exchange Organization, and the national media should promote financial knowledge on different social levels and introduce the anomalies, which form a new unknown field for society, in general, and the business environment, in particular.
- The government should put more effort into the correct enforcement of Principle 44 of the Constitution, reduce budget dependency on oil revenues, value reliance on endogenous revenues (such as tax revenues) more, and put the revision of the Trade Act on the agenda to increase its conformity with the Stock Exchange Law.
- Investment and financial institutions shall conduct their transactions in accordance with the trading strategy codes suiting each trade and using investment committees to ensure market stability.
- The Securities and Exchange Organization should set requirements such as transparency, obligatory disclosure, and reduction of trading costs. Solutions such as increasing the number of

market actors, promoting fundamental analysis, encouraging people to invest in funds, and developing investment instruments should also be included in the plans.

- Legislative bodies should pass laws to increase floats in the ownership structure of companies, pass final firm laws to support minor shareholders, firmly punishing the criminal acts (by the supervisory body), and reducing the ownership percentage of pension funds and state institutions in companies' shareholders to pave the way for the development of the Iranian capital market.

The following suggestions are also provided for future research.

- The quantitative analysis of the short-term winner stock momentum paradigm with questionnaire data and the data onto databases on the economic and financial levels and other quantitative data resources
- Modelling loser stock momentum with the grounded theory qualitative approach

The most important limitation on the qualitative studies is the possibility of intervention in the researcher's assumptions and biases in the research findings. In this study, the researcher tried to advance the study without any assumption or bias and only encode the interviewees' observations and reports in accordance with the grounded theory qualitative approach standards. Another limitation on this qualitative study was that only the winner stock momentum was explained and modeled due to the time limitation. Hence, the analysis of loser stock momentum calls for another study.

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