
The Effect of Egyptian Investor Perceptions on a Firm's Worth

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Abstract:

Purpose: The present research explores the Egyptian stock market and how two behavioural traits—loss-aversion and over-confidence—affect firm market performance.

Methodology: This study employs a quantitative methodology, utilizing secondary data obtained from public financial statements and the Egyptian Stock Exchange's official website. The research cohort comprises Egyptian corporations that are publicly traded on the EGX 100 index. The temporal scope spans from 2013 until March 2024. The main hypothesis is **H₀**: Loss-aversion and over-confidence do not exhibit a statistically significant effect on firm worth, as measured by market capitalization.

Findings: The statistical results suggest that market capitalization is negatively affected by loss-aversion, which is in accordance with the existing literature. In contrast to the majority of academic research, the second variable (Over-confidence) has a positive effect on market value, suggesting that Egyptian investors may have an unconventional perspective on risk perception.

Originality/value: This paper is novel in that it uses a quantitative method rather than survey lists to measure investor behaviour, furthermore it presents a new evidence that can be utilized to evaluate the significance of investor behaviour and its effect on the market movement of Egyptian stock market firms. The paper paves the way for further investigation by employing a unique dataset that encompasses various facets of investor behaviour in the Egyptian stock market over an extended period and a greater number of companies, thereby furnishing a more comprehensive set of data for analysis.

Keywords: *Behaviour finance; Over-confidence; loss-aversion; market capitalization; firm worth*

Paper type: Research paper

المستخلص:

الهدف: يهدف البحث الحالي الى دراسة أثر سمتان سلوكيتان هما: تجنب الخسارة والثقة الذاتية على القيمة السوقية للشركات المسجلة بسوق الأوراق المالية المصري. **المنهجية:** يعتمد هذا البحث على المنهج الكمي، وذلك باستخدام البيانات الثانوية التي تم الحصول عليها من البيانات المالية المنشورة في الموقع الرسمي للبورصة المصرية. وتضم مجموعة البحث شركات مصرية يتم تداول أسهمها في مؤشر EGX 100. كما يمتد النطاق الزمني من عام ٢٠١٣ حتى مارس ٢٠٢٤. ويختبر البحث فرضية رئيسية هي H_0 : ليس من المتوقع ان يكون لسلوك المستثمر المتمثل في تجنب الخسارة والثقة الذاتية أثرا ذا دلالة إحصائية على قيمة الشركة، مقاساً بالقيمة السوقية.

النتائج: تشير النتائج الإحصائية إلى أن القيمة السوقية تتأثر سلباً بسلوك تجنب الخسارة، وهو ما يتوافق مع الأدبيات السابقة. وعلى النقيض من غالبية الأبحاث

الأكاديمية، فإن المتغير الثاني (الثقة الذاتية) له تأثير إيجابي على القيمة السوقية، مما يشير إلى أن المستثمرين المصريين قد يكون لديهم منظور غير تقليدي بشأن التعامل مع المخاطر.

الأصالة/القيمة: يعتبر هذا البحث جديداً من حيث إنه يستخدم الأسلوب الكمي بدلاً من قوائم الاستقصاء في قياس سلوك المستثمر، كما يقدم أدلة جديدة يمكن استخدامها لتقييم أهمية سلوك المستثمر وتأثيره على حركة السوق الأوراق المالية المصري. وتمهد هذه الورقة الطريق لمزيد من البحث من خلال استخدام مجموعة متغيرات جديدة تشمل جوانب مختلفة من سلوك المستثمرين في سوق الأوراق المالية المصرية على مدى فترة طويلة وعدد أكبر من الشركات، وبالتالي تقديم مجموعة أكثر شمولاً من البيانات للتحليل.

الكلمات المفتاحية: التمويل السلوكي، تجنب الخسارة، الثقة الذاتية، القيمة السوقية

Introduction

Behavioural finance posits that individuals, instead of being rational and analytical, frequently make financial choices influenced by cognitive biases and emotions. For investors interested in understanding how emotions and biases influence stock values, the field of behavioural finance provides intriguing descriptions and explanations. Behavioural biases effect investors and subsequently influence their strategic investment decisions, resulting in market volatility. Traditional financial models assume that investors are rational and skilled, relying on their own knowledge and expertise. However, when faced with decision-making challenges, investors often rely on mental calculations. This can result in the mishandling of information, leading to market anomalies, particularly in the stock market.

Behavioural finance generally encompasses the following five fundamental concepts: Mental accounting is a cognitive bias where individuals allocate funds for specific purposes. Herding behaviour, which posits that individuals generally replicate the financial habits of the bulk of a herd, is notorious in the stock market for creating abrupt surges and declines in prices. The phenomenon known as the emotional gap occurs when individuals make decisions heavily influenced by intense emotions or emotional pressures like anger, fear, excitement, or anxiety. Emotions often play a significant role in preventing individuals from making rational decisions. Anchoring is the act of linking a specific financial level to a particular reference point. This can involve justifying expenditures based on different measures of satisfaction or constantly adhering to a predetermined budget level. Lastly, self-attribution pertains to the inclination to make decisions based on over-confidence rather than relying on one's knowledge or expertise. One of the initial behavioural biases discovered to effect market performance is over-confidence. Researchers have observed that over-confidence leads individuals to overestimate the accuracy of their information or skills, causing them to overvalue their understanding of a security's value. The second behavioural bias is Loss aversion, which arises from the prevailing influence of negativity. The objective of this research is to analyse the influence of over-confidence and loss-aversion on the market

enactment of firms in the Egyptian stock market. This will be achieved by calculating the loss-aversion and over-confidence ratios for the most active 100 companies in the Egyptian market. Attempting to address the inquiry of the effect of Egyptian investors' perceptions of loss-aversion and overconfidence on the firm's worth as measured by market capitalization.

Research goals and objectives:

The main aim of this research is to investigate the impression of loss-aversion and over-confidence on the market enactment of the most actively traded company on the Egyptian stock exchange, employing financial ratios. We can divide the primary objective into three more specific sub-objectives. (1) To examine the effect of loss-aversion and over-confidence as investor perceptions on the Egyptian firm's performance. (2) To understand the consequences of loss-aversion and over-confidence among organizations and investors. (3) Facilitate the achievement of the United Nations' sustainable development goals for 2030 by providing superior quality education, applying scientific research methodologies to accomplish the fourth objective, and providing recommendations to business owners and investors to improve work environments and foster economic growth, as outlined in the eighth objective.

Literature Review:

In recent years, numerous research papers have investigated the persuasion of investor behaviour on the success of companies listed on different stock markets. Studies have demonstrated that both excessive self-assurance and fear of losses have substantial effects, resulting in elevated pricing and greater degrees of fluctuation in investment returns. Nevertheless, certain studies have discovered that loss-aversion might have a negative effect on corporate performance. Behavioural finance research has also examined the psychological elements that effect financial decision-making. Aljughaiman & Chebbi (2021) discovered that investor over-confidence has a beneficial effect on a company's market value, whereas loss-aversion is negatively associated. Lebdaoui et al. (2021) discovered that excessive self-assurance and the tendency to make judgments based on limited samples had a significant and favorable influence on achieving financial success. Abdeldayem et al. (2020) investigated the causal relationship between herding behaviour and expectations concerning the severity of a pandemic. In their study, Andrzej et al. (2020) discovered a notable and favorable association between quantitative indicators of over-confidence and detrimental debt-related conduct. However, they observed that the basic binary measure of over-confidence did not possess any predictive capacity for determining behaviour. Matúš Grežo (2020) discovered a distinct and significant association among

over-confidence and financial decision-making; however, the strength of this association is very feeble. Studies have demonstrated that certain characteristics, such as excessive self-assurance, following the crowd, and the way individuals perceive risk, have a substantial effect on how investors make decisions in the stock market. In their work, Mumtaz *et al.* (2020) discovered that three cognitive biases, namely over-confidence bias, representativeness bias, and availability prejudice, had a noteworthy influence on investment decisions. Furthermore, they observed a positive correlation between the independent variables (the biases) and the dependent variable (investment decisions). In their study, Abul *et al.* (2019) investigated the effect of psychological factors on investor behaviour on the Kuwait Stock Exchange. Their findings indicate that herd behaviour, optimism, and psychological risk play a significant role in shaping the decision-making practices of individual investors. Ainia *et al.* (2019) investigated how loss-aversion and over-confidence affect investment decisions, whereas Areiqat *et al.* (2019) studied the possible influence of these characteristics on decision-making on stock investments at the Amman Stock Exchange (ASE). Bertella *et al.* (2019) examined the psychological effects of loss-aversion and over-confidence in a simulated stock market. They discovered that the participation of fundamentalists and chartists resulted in an increase in stock return rate, trading volume, and excess price volatility. Daniel *et*

al. (2019) examined the relationship between behavioural finance and stock market functioning in Ghana found that risk-averse behaviours, over-confidence, and individual investors' risk perceptions are positively associated with the performance of the stock market. In addition, Haritha and Rashmi (2019) examined the effect of investor sentiment on decision-making in the stock market of India, while Metawa *et al.* (2019) explored the relationship between investors' demographic features and their investment decisions in the Egyptian stock market. Investment decisions are greatly affected by investor sentiment, which includes both overreactions and underreactions, excessive confidence, and the inclination to conform to popular opinion. Investment choices are influenced by factors such as age, gender, and education. Research has indicated that the presence of loss-aversion and over-confidence bias has a detrimental effect on the performance of businesses in both the public and private sectors. Excessive confidence has a positive effect on industrial companies, but a negative effect on service firms. Jokar *et al.* (2018) employed multiple linear regression approaches to demonstrate the effect of investors' behaviour and management on stock performance. Qasim *et al.* (2018) discovered that both herding tendencies and over-confidence bias exert a substantial and significant influence on the decision-making process of investors. Zahera *et al.* (2018) discovered various biases that influence investing decision-making, results in establishment of

behavioural finance as a recognized academic discipline. The efficient market hypothesis posits that stock markets function optimally, with stock prices accurately reflecting all relevant information. Bertella *et al.* (2017) discovered that chartists who exhibited confidence resulted in elevated prices and greater levels of return volatility in comparison to chartists who lacked confidence. Tran *et al.* (2017) analyzed the behavioural patterns displayed by investors in Thailand's stock market. They identified four key factors that effect their decision-making: the psychology of risk, herding behaviour, excessive optimism, and over-confidence. Khan *et al.* (2017) illustrated the effect of behavioural biases, such as availability and loss-aversion bias, on the investment decision process when considering risk sensitivity. Metwally & Darwish (2015) in their study investigated the influence of over-confidence, a cognitive bias stemming from cognitive psychology, on traders' perspectives and its correlation with excessive trading activity. The Egyptian stock market is susceptible to psychological factors, where historical market results have an effect on the total monthly turnover. Hassan *et al.* (2014) and Kermani *et al.* (2014) organized research on the effect of gender and age on over-confidence and loss-aversion among investors, specifically in the context of Pakistan. The study revealed that male and older investors in Pakistan demonstrate elevated levels of over-confidence, while women and elderly investors exhibit a stronger

aversion to losses. Kermani *et al.* (2014) conducted a study to investigate the influence of over-confidence on profit smoothing in three prominent businesses on the Tehran stock exchange. The findings of the study indicate that management over-confidence does not have an effect on profit smoothing. Ranjbar *et al.* (2014) directed a study to investigate the influence of behavioural characteristics on the success of investors on the Tehran Stock Exchange. The study revealed that heuristic approaches, herding tendencies, and loss-aversion significantly affect investors' performance. Adel *et al.* (2013) investigated the effect of the over-confidence bias on investors' decision-making, particularly examining the relationship between trading volume and volatility. Mbaluka *et al.* (2012) discovered that behavioural economic concepts, such as framing and loss aversion, have an effect on the decision-making process in investing. The study revealed that investor decision-making diverges from traditional finance theory, with loss-aversion playing a substantial role in investing choices. Drawing from prior investigations, the primary hypothesis of this paper can be delineated as follows: **H₀₁: Loss-aversion and over-confidence do not exhibit a statistically significant effect on firm worth, as measured by market capitalization.**

Research variables and its measures:

Over-confidence: Scholars broadly concur on the concept of over-confidence, which they define as the tendency to

overestimate one's abilities or judgments in different situations. DeBondt, Murdoglu, Shefrin & Staikoras (2008) define over-confidence as the tendency of individuals to place excessive value on their own knowledge or abilities. Odean (1998) associates' over-confidence with investors having an inflated perception of the accuracy of their information regarding stocks. According to Mahajan (1992), over-confidence is the tendency to overestimate the likelihood of certain events, resulting in a psychological bias towards optimism. According to Moore and Healy (2008), there are three primary forms of over-confidence: overestimation, over placement, and over precision. Overestimation is the act of mistakenly believing in one's abilities or expertise, usually influenced by wishful thinking and resulting in overly optimistic predictions (Sharot, 2011). Over-placement, also referred to as the "better-than-average effect," refers to the conviction that one possesses superior qualities compared to others (Beer & Hughes, 2010). Over-precision, conversely, refers to an exaggerated confidence in possessing the absolute truth, which encompasses the ability to accurately predict future uncertainties (Alpert & Raffa, 1982). Characteristics such as the perception of possessing extensive information, control, comprehension, validity, and proficiency shape these various manifestations of excessive self-assurance. Consequently, individuals tend to overestimate their level of expertise while simultaneously underestimating potential threats

(Chandra). Over-confidence is fuelled by the false perception of knowledge, control, comprehension, validity, and skill, causing individuals to overestimate their abilities and make biased decisions (Chandra). An example of this is the concept of the illusion of understanding, as introduced by Nassim Taleb. It emphasizes how narrative fallacies can influence our perception of the world and future predictions. Furthermore, the concept of the illusion of validity underscores the notion that even weak evidence can craft compelling narratives, while the illusion of expertise deeply entrenches itself in various sectors, including banking (Kahneman, 1979). Empirical research conducted by Daniel et al. (1998), Gervais and Odean (2001), Odean (1999), and Barber and Odean (2000, 2001) has demonstrated that investor over-confidence can result in a negative serial correlation in prices, higher trading volume, and diminished portfolio performance. Investors who are too confident often engage in frequent trading due to their belief in their superior expertise, leading to the formation of speculative bubbles and having a substantial effect on the stock market. To test H_{01} , the overconfidence variable is substituted by the percentage change of shareholders' capital measured by stock turnover. The choice of this variable proxy was based on the studies of Malmendier and Tate (2005), Heaton (2002) and Michailova (2010).

Loss Aversion: Hwang and Satchell (2010) and Berkelaar & Kouwnberg (2008) emphasized that the level of loss-aversion among

investors varies depending on market conditions, with investors exhibiting more aversion to losses during bull markets compared to bad markets. Loss aversion, as conceptualized by Kahneman and Tversky (1979), denotes the inclination of humans to experience the distress of a loss with more intensity than the pleasure derived from an equivalent gain. This psychological bias significantly effects decision-making within financial markets. Loss-aversion has profound ramifications for investment behaviour, as individuals may steer clear of assets that have the potential to result in losses due to their heightened sensitivity to losses in comparison to gains. The avoidance of losses can have an effect on individuals' involvement in the stock market and investors' decision-making processes, resulting in less-than-ideal choices when it comes to managing their investment portfolios. Loss-aversion is not limited to financial markets and has its origins in evolution, where being sensitive to losses may have been an important skill for survival. Research has indicated that people display different levels of loss aversion, and these preferences for risk and decision-making related to possible losses are influenced by cultural differences. Loss-aversion is a contributing factor to behavioural biases like the disposition effect, which leads investors to hold onto losing investments for longer periods than they should and sell profitable stocks prematurely. Gaining insight into and surmounting the adverse effects of loss aversion, such as refraining from taking risks in order to recover losses or persisting in holding onto failing assets, can result in

enhanced financial decision-making and more effective portfolio management. Quantifying loss-aversion entails utilizing intricate economic models and procedures to evaluate its influence on diverse financial indicators such as return on assets (ROA) and net profitability. To make more informed and reasonable investing decisions when faced with prospective losses, individuals might utilize ways to lessen the negative effects of loss-aversion by comprehending its psychological foundations. H_{01} is tested by including a loss-aversion variable, which is calculated through the fast variation of trading volume within a specified period. The use of this variable as a proxy is supported by many studies in the literature (Kahneman and Tversky, 1992; Gensove and Mayer, 2001; O'Connell and Teo, 2009; Gomes, 2005).

Firm Worth:

Measured by market capitalization, which is an important financial source through which firm finance their multiple operations (Buchuk et al., 2014). It also indicates a company's value in the financial market and typically plays an important role in multiple business decisions. Market capitalization reflects the total value of a company based on its current market price. It is calculated as follows: $\sum Q_i \times P_i$

Where:

Q_i = The number of outstanding shares

P_i = The price of each share

The total number of issued shares, which is the basis for determining market value, typically represents the actual number of shares available for trading. Table (1) summarizes the variables and its measures.

Table (1): Research Variables and Measures

Variable Type	Name	Appr.	Measures
Dependent	Firm Worth	MCAP	Market Capitalization = No. of Outstanding Share × Market Price
Control	Tobin's Q Ratio	TQ	Stock Market Value To Its Book Value
	Firm Size	FSIZE	Natural Logarithm of Total Assets
	Net Earnings	NE	Accounting Report Net Income
	Return On Assets	ROA	Net Income To Total Assets
Independent	Overconfidence	OC	Share Turnover
	Loss Aversion	LA	Percentage Variation of Transaction Volume

Source: Prepared by the author

The research sample:

This study employs a quantitative methodology, utilizing secondary data from public financial statements and the official website of the Egyptian Stock Exchange. The research cohort comprises Egyptian corporations that are publicly traded on the EGX 100 index. The temporal scope spans from 2013 until March 2024 with 1,200 observations.

Data Analysis

A multiple regression equation is used with panel data across different time periods to allow us to control for fixed effects, which are factors that do not change over time and that may

affect the dependent variable. The multiple regression equation form for panel data can be derived as follows:

$$MCAP_{it} = \alpha_i + \beta_1 LA_{it} + \beta_2 OC_{it} + \beta_3 NE_{it} + \beta_4 ROA_{it} + \beta_5 TQ_{it} + \varepsilon_{it} \dots (2)$$

To check the stationary of the study data, The stationary test aims to detect Spurious deviations in the standard model under study. It is tested through the unit root test for time series data for variables. In the event of a unit root problem, the time series is processed to make it stationary through the first or second difference, thus eliminating spurious deviations in the time series. There are several tests to determine the stationarity of time series and to achieve the goal of the study, the Levin, Lin & Chu test was used, and the test results are as shown in table (2):

Table (2) Levin, Lin & Chu unit root test

Variables	Level		1 st difference		Degree of co-integration
	Statistic	prob	Statistic	prob	
Mcap	0.5419	0.706	-38.551	0.000	I(1)
LA	0.7508	0.7736	-24.8810	0.000	I(1)
OC	-16.2966	0.000	-	-	I(0)
NE	-7.426	0.000	-	-	I(0)
ROA	-4.623	0.000	-	-	I(0)
TQ	19.653	1.000	-11.729	0.000	I(1)

Source: From the output of E-Views 12

It is clear from the table of Levin, Lin & Chu test results that the variables (MCAP - LA - TQ) are un-stationary at the level with a significance level greater than 5%, and after taking the first difference with one lag period, the variables became stationary at the first difference, at a significance level less than 5%, which

indicates the stability of the panel data variables. As for the independent variables (OC - NE - ROA) they are stationary at the level, and the test significance values are less than 5%, which confirms the stability of the time series.

Kao Residual Cointegration Test is a statistical test used to determine whether there is a combinatorial relationship between two or more time series. This test is an alternative to traditional tests such as the Dickey-Fuller test and the Phillips-Perron test, as it reflects the existence of serial correlation between variables, and the hypotheses stipulate the following:

- Null hypothesis: There is no combinatorial relationship between time series.
- Alternative hypothesis: There is a combinatorial relationship between time series.

Table (3) Kao Residual Cointegration Test

Kao Residual Cointegration Test
 Series: MCAP LA OC NE ROA TQ
 Date: 06/24/24 Time: 22:41
 Sample: 2013 2024
 Included observations: 1200
 Null Hypothesis: No cointegration
 Trend assumption: No deterministic trend
 User-specified lag length: 1
 Newey-West automatic bandwidth selection and Bartlett kernel

ADF	t-Statistic	Prob.
	2.615596	0.0045
Residual variance	5.17E+19	
HAC variance	6.04E+19	

Source: From the output of E-Views 12

The value of the ADF statistic is 2.615596, and the probability value is 0.0045. Since the probability value is less than the

significance level (0.05), we reject the null hypothesis and support the alternative hypothesis. Based on the results of the Kao Residual Cointegration test, we can conclude that there is a *combinatorial relationship between the five-time series: MCAP, LA, OC, NE, and ROA.*

After conducting a cointegration analysis, a comparison is made between the combined model and fixed and random effects. Therefore, the Lagrange Multiplier Test for Random Effects was relied upon, and the null hypothesis states: There are no random effects. The table (4) indicates the Lagrange Multiplier test results for three different tests:

Table (4) Lagrange Multiplier Tests and Hausman test

Test Hypothesis	Cross-section	p-value	decision
Breusch-Pagan	1625.928	0.000	Reject null hypothesis
Honda	40.3228	0.000	Reject null hypothesis
King-Wu	40.3228	0.000	Reject null hypothesis
Hausman	Chi-squared statistic = 14.157552 / p-value = 0.0146 fixed effects model is better than random effects		

Source: From the output of E-Views 12

Breusch-Pagan test: This is the most common test to determine random effects. The table shows that the Breusch-Pagan test is very large (1625.928) with a very small p-value (0.0000). This indicates that the null hypothesis (no random effects) *is rejected*.

Honda test: This test is comparable to the Breusch-Pagan test but is more robust against asymmetric alternatives. The table shows that the Honda test is very large (40.32280) with a very small p-

value (0.0000). This indicates that the null hypothesis *is also rejected*.

King-Wu Test: The table shows that the King-Wu test is very large (40.32280) with a p-value (0.0000). This indicates that the null hypothesis *is also rejected*.

After ensuring that there are random effects, the cross-section random effects model is compared to the fixed effects model. The significance value was 0.0146, and therefore we can conclude that the fixed effects model is more efficient than the cross-sectional random effects model in this case. This means that there is significant variation between units in their characteristics, which justifies the use of a fixed effects model that takes these differences into account.

Table (5) Fixed effects model Estimating

Variable	Coefficient	t-Statistic	Prob.
Loss Aversion (LA)	-0.3913	-5.5951	0.000
Overconfidence (OC)	0.1419	6.8646	0.031
Net Earnings (NE)	0.2746	4.3716	0.010
Return On Assets (ROA)	0.3187	1.0822	0.004
Tobin's Q Ratio (TQ)	0.6177	3.5311	0.001
C	0.2258	7.1017	0.000
R-squared	0.6364		
F-statistic	8.4270		
Prob(F-statistic)	0.000		
Durbin-Watson stat	2.4508		

Source: From the output of E-Views 12

The value of R^2 was about 0.636, which indicates that 63.6% of the change in market capitalization is due to the change in Loss-aversion (LA), Over-confidence (OC), Net Earnings (NE), Return On Assets (ROA), and Tobin's Q Ratio (TQ), the estimated model is significant. Therefore, the regression equation for the model becomes as follows:

$$\text{MCAP} = -0.3913 \cdot \text{LA} + 0.1419 \cdot \text{OC} + 0.2746 \cdot \text{NE} + 0.3187 \cdot \text{ROA} + 0.6177 \cdot \text{TQ} + 0.2258$$

Results Discussion:

Loss-aversion has a negative effect on market value. This means that companies whose investors have more loss-aversion tend to have lower market capitalization. This is likely because investors who experience loss-aversion are more likely to sell their shares when the stock price falls, which can lead to a decline in market value.

Over-confidence has a positive effect on market value. This means that companies whose investors have more Over-confidence tend to have a higher market capitalization. This is likely because over-confident investors are more likely to buy stocks that they believe are undervalued, causing the stock price and market value to rise.

Net profits have a positive effect on market capitalization. This means that companies with higher net profits tend to have a higher market capitalization.

Return on Assets has a positive effect on market capitalization. This means that companies with a higher return on assets tend to have a higher market capitalization.

Tobin's Q ratio has a positive effect on market capitalization. Tobin's Q ratio is a measure of a company's value. The results indicate that firms with a higher Tobin's Q ratio tend to have a higher market capitalization.

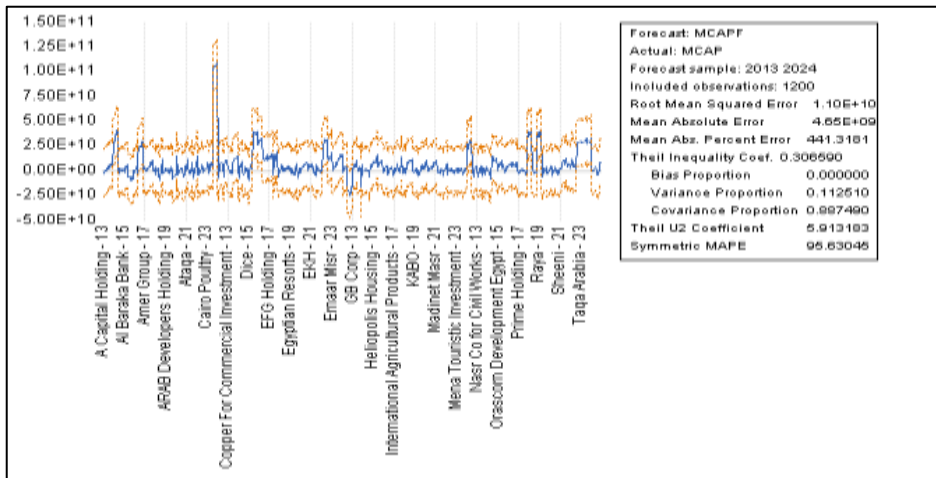


Figure (1) Display the prediction model for the fixed effects model

Source: From the output of E-Views 12

Overall, the results indicate that the MCAPF model is accurate in predicting MCAP values. The root mean-square error and mean-absolute error show that the error between the predicted values and the actual values is relatively small. The average absolute error percentage shows that the error is relatively large, but this is expected given the range of large values of MCAP. Thiel's

inequality coefficient shows that the error is relatively concentrated, meaning that there are few observations with large errors. The bias ratio, variance ratio, and shared variance ratio indicate that the error is mainly caused by the shared variance between the predicted values and the actual values. Theil coefficient U2 shows that the error concentration is moderate. Symmetric relative absolute error shows that the relative absolute error between predicted and actual values is relatively high, but this is also expected given the large range of values of MCAP. *Thus, the results indicate that the MCAPF model is accurate in predicting MCAP values.*

Conclusion:

The objective of this paper is to investigate the effect of the Egyptian investor's loss-aversion attitude and over-confidence traits on their investment decisions and the subsequent effect on the value of the Egyptian stock market, as measured by market capitalization. Employing quantitative methodology that is predicated on secondary data obtained from the official website of the Egyptian Stock Exchange and public financial statements. The research cohort consists of Egyptian corporations that are publicly traded on the EGX 100 index. The temporal scope extends from 2013 to 2024.

Statistical results indicate that the first variable (Loss-aversion) has a negative effect on market capitalization, which is consistent with previous literature such as Malmendier and Tate (2005),

Heaton (2002), and Michailova (2010), following the testing of the main hypothesis that "Loss-aversion and over-confidence do not exhibit a statistically significant effect on firm worth, as measured by market capitalization." The second variable (Over-confidence) has a positive effect on market value, which contrasts with the findings of Daniel et al. (1998), Gervais and Odean (2001), Odean (1999), and Barber and Odean (2000, 2001). The majority of this academic work has shown that investor over-confidence can lead to a negative serial correlation in prices, increased trading volume, and diminished portfolio performance. This may indicate that Egyptian investors possess an unconventional perspective on risk perception.

Recommendations:

For future research, it is recommended that additional behavioural traits, such as cognitive bias and herding behaviour, be included in addition to overconfidence and loss aversion. Additionally, a novel quantitative method should be employed to measure these behaviours, rather than surveys and qualitative techniques.

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