



Are Amman Stock Exchange Investors Overconfident?

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ABSTRACT

This study highlights the factors that affect investors' overconfidence. Since the overconfidence is considered one of the major psychological traits that impact the investment decision in Amman stock exchange (ASE), the importance of this study emerge through the importance of the investment decision itself. Accordingly, this paper studies overconfidence and number of its originators through structured questionnaire. The six factors we focus on include experience, financial knowledge, academic qualifications, opinions of financial advisors, and past performance of the stock. We randomly manage to get 250 respondents' sample of ASE traders. The results indicate that the investor overconfident is significantly increased by experience and financial knowledge factors.

Keywords: Overconfidence, Amman Stock Exchange, Behavioral Finance, Experience, Financial Knowledge

JEL Classification: E44

1. INTRODUCTION

Investment decisions taken by investors are assumed to be rational in the classic model of financial theory. But in reality, the investors don't make unbiased valid decisions all the time. In the contrary, especially in efficient markets, a good number of investors tend to make irrational investment decisions. According to the literatures, certain detected anomalous on the financial market can't be explained by efficient market hypothesis, and this was the root for the development of new research field which is called behavioral finance. Behavioral finance has been taken into consideration and transferred to become a theory system since the eighties of the last century. It is considered as an alternative to the standard theory (Kahneman and Tversky, 1979) to explain investors' behavioral biases, which lead to irrational decision.

These behavioral biases of investors and the stock market anomalies are imputed to psychological factors, and the financial decisions will be affected by cognitive errors due to psychological involvement in investment decisions (Bashir et al., 2013). One of these psychological aspects is overconfidence, which seems a very important factor that has influence on financial decisions.

The markets are assumed as imperfect by irrational investors approach; and thus compared to fundamentals, prices and

returns are too high or too low (Haddad and Al-Horani, 2011). Overconfidence can be defined as the personal propensity to have an irrational exaggerated degree of confidence in the beliefs and abilities (Pompian, 2006; Odean, 1998; 1999). So when there is an overconfidence bias, the financial information interpretation can misguide the decision maker due to the overestimation of person's knowledge or precision of private information.

In this study, we try to figure out if Amman stock exchange (ASE) investors are overconfident, and to determine the factors that originate the overconfidence. Many factors that influence overconfidence are considered in this paper such as age, financial knowledge, academic qualifications, experience and other factors. Therefore, the purpose of this paper is to provide and evidence investigation from ASE, on the factors that influence investors' overconfidence.

2. LITERATURE REVIEW

Our daily base life decisions are effected by the human nature itself, which govern our behaviors. One of these human psychological aspects is overconfidence. Overconfidence creates a distorted view of the reality, where the decision maker use this irrationality to make a exaggerated judgment and expectations which exceed the point that would be vindicated by rational tests

of the facts. Cognitive bias defined as the systematic distortions of real world (Craig and Fairchild, 2015). Two different explanations can be taken from overconfidence definition, the first is arrogance or hubris which refer to the idea that take shape into the investors mind when they judge their skills as “better than average,” which can be understood as distorted perceived means caused by irrationality (Zaiane and Abaoub, 2009). The second one is “miscalibration” (Dawes and Mulford, 1996; Fischhoff et al., 1977; 1980). Overconfidence can be presented as specific form of miscalibration, for which the given answers to be correct have assigned probability surpasses the actual accuracy of the answers (Skala, 2008), which can be understood as distorted perceived variance caused by irrationality (Zaiane and Abaoub, 2009).

In many complicated tasks, that has a degree of prediction under low probability and uncertainty conditions and when there is a need for fast decisions with noisy feedback, Overconfidence has greatest influence (Yates, 1990; Lichtenstein et al., 1982). When accuracy becomes near to chance levels, overconfidence will be greatest (Plous, 1993).

However, the high volume of trading in financial markets, specially noticed in speculative markets, seems basically to be boosted by overconfidence (Shiller, 2000). The relationship between the trading volumes and overconfidence of the investors is investigated by Glaser and Weber (2007), and they find that high trading volumes is caused by “better than average” effect.

Empirical papers introduce several factors that may influence the investors to be overconfident. While Gervais and Odean (2001) find that there is a negative relationship between investors’ overconfidence and their experience, Kirchler and Maciejovsky (2002) show that this relationship is positive one. In his study, Glaser et al. (2005; 2007) show that professional traders are more overconfident than students. One other hand, the method that we measure experience determines this relation as Menkhoff et al. (2006) introduce a mixed evidence of the case.

Gender is proposed as one of the factors that affect overconfidence. Women are less overconfident than men (Lundeberg et al., 1994; Barber and Odean, 2001). Women will trade less and perform better than men, due to that men are more confident than women (Barber and Odean, 2001).

The higher level of knowledge may rise overconfidence (Hung and Yoong, 2010; Kramer, 2014). Kruger (1999) show in his paper that the respondent’s overconfidence decreases with questions related to areas where they find themselves incompetent. Moreover, Gigerenzer et al. (1991) find in his experiment that noticed respondent’s overconfidence is reduced when general knowledge questions are faced.

One of the factors that influence the level of people’s overconfidence is age (Tyynela and Perttunen, 2003). While Pliske and Mutter (1996) find that age and overconfidence have a negative relationship, Hansson et al. (2008) show that these two factors have a positive one. Furthermore, Job (1990) argues that the confidence

itself increase with age till 40 years, then this confidence start to change.

3. DATA AND METHODOLOGY

To collect our data, a questionnaire is addressed randomly to 400 ASE traders. The final sample is 250 out 400 investors, with response rate of 62%. The questionnaire is formed by three sections. First section studies investor’s demographic characteristics which include gender, age, academic qualifications, years of experience in ASE and financial knowledge. Second section is 17 questions that measure overconfidence and the determinants that may generate it. Determinants we investigate their effects on overconfidence include investor experience, academic qualifications, firm disclosure, and stock past performance, financial advices and management qualifications. Three-Likert scale (agree, neutral, disagree) is used to measure it. Third section is an open-end question about the factor that investors consider it as the most important to generate their overconfidence.

Referring to section one, three levels is forming the age, 26-35, 36-45, 46 and above. Investment knowledge consists of three levels, either by experience or by academic qualifications or both. Academic qualifications is formed by three levels, BA, MA, PhD. Years of experience in ASE include four levels, <2, 2-5, 5-10, 10 and above.

The descriptive statistics of Table 1 show that this study’s respondent’s traders of ASE with majority are male youth; with 37% of respondents are between 26 and 35 years old, and 71% of respondents are male. Most of respondents are bachelor degree holder with 44% of them. The rest are 29% master holder and 26% carry PhD degree, which reflect the good education levels that the sample members have. For 39% of respondents, their knowledge is obtained by financial experience in ASE. 26% of the sample members own their knowledge depending on their academic qualification, and the rest of the sample depend on both. 32% of the sample members spent 5-10 years of trading in ASE with 32%. 29% have 2-5 years of experience in ASE, 24% have <2 years experience, and the percent goes down to 14% for the respondents who have 10 and more years of experience in ASE.

4. EMPIRICAL RESULTS

By using 3-Likert scale, we try to show each question’s scores. As it is shown in Table 2, ASE investors are appeared as overconfident, by referring to questions 1-5 which measure overconfidence, with Mean range from 2.14 to 2.61. This reflects that the overall respondents are overconfident. Questions 6 and 7 with mean of 2.83 and 2.64 respectively show that most of respondents agree that overconfident is increased by experience.

The sample members agree that academic qualification (measured by questions 8 and 9 with mean of 2.05 and 2.37 respectively), and financial advices (measured by questions 15 and 16 with

Table 1: Descriptive statistics

| Factor | Class | Frequency | Percent % | Cumulative frequency | Cumulative percent % |
|------------------------|-------------------|-----------|-----------|----------------------|----------------------|
| Age | 26-35 | 93 | 37.2 | 93 | 37.2 |
| | 36-45 | 87 | 34.8 | 180 | 72.0 |
| | Above 45 | 70 | 28.0 | 250 | 100.0 |
| | Total | 250 | 100.0 | | |
| Gender | Male | 179 | 71.6 | 179 | 71.6 |
| | Female | 71 | 28.4 | 250 | 100 |
| | Total | 250 | 100.0 | | |
| Academic qualification | BA | 112 | 44.8 | 112 | 44.8 |
| | MA | 73 | 29.2 | 185 | 74 |
| | PhD | 65 | 26 | 250 | 100 |
| | Total | 250 | 100 | | |
| Knowledge | Academic | 65 | 26 | 65 | 26 |
| | Experience | 98 | 39.2 | 163 | 65.2 |
| | Both | 87 | 34.8 | 250 | 100 |
| | Total | 250 | 100 | | |
| Experience | Less than 2 years | 60 | 24 | 60 | 24 |
| | 2-5 years | 73 | 29.2 | 133 | 53.2 |
| | 5-10 years | 80 | 32 | 213 | 85.2 |
| | 10 and more | 37 | 14.8 | 250 | 100 |
| | Total | 250 | 100 | | |

Table 2: Questionnaire results

| Question | N | Min | Max | Mean±standard deviation |
|------------------------|-----|-----|-----|-------------------------|
| Age | 250 | 1 | 3 | 1.85±0.792 |
| Gender | 250 | 1 | 2 | 1.2±0.390 |
| Academic qualification | 250 | 1 | 3 | 1.9±0.689 |
| Knowledge | 250 | 1 | 3 | 1.98±0.835 |
| Experience | 250 | 1 | 4 | 2.45±1.01 |
| Q1 | 250 | 1 | 3 | 2.14±0.611 |
| Q2 | 250 | 1 | 3 | 2.23±0.712 |
| Q3 | 250 | 1 | 3 | 2.26±0.606 |
| Q4 | 250 | 1 | 3 | 2.61±0.581 |
| Q5 | 250 | 1 | 3 | 2.46±0.890 |
| Q6 | 250 | 1 | 3 | 2.83±0.502 |
| Q7 | 250 | 1 | 3 | 2.46±0.485 |
| Q8 | 250 | 1 | 3 | 2.05±0.690 |
| Q9 | 250 | 1 | 3 | 2.37±0.789 |
| Q10 | 250 | 1 | 3 | 1.85±0.912 |
| Q11 | 250 | 1 | 3 | 1.97±0.785 |
| Q12 | 250 | 1 | 3 | 2.31±0.619 |
| Q13 | 250 | 1 | 3 | 1.87±0.585 |
| Q14 | 250 | 1 | 3 | 2.25±0.785 |
| Q15 | 250 | 1 | 3 | 2.19±0.689 |
| Q16 | 250 | 1 | 3 | 2.24±0.713 |
| Q17 | 250 | 1 | 3 | 2.07±0.693 |

Table 3: Stepwise regression results

| Model | Unstandardized coefficients | | Standardized coefficients | t | Sig. |
|-------------------------|-----------------------------|----------------|---------------------------|-------|-------|
| | Beta | Standard error | | | |
| Constant | 0.000 | 0.063 | | 0.000 | 1.000 |
| Experience | 0.781 | 0.095 | 0.305 | 2.731 | 0.004 |
| Knowledge | 0.135 | 0.061 | 0.295 | 1.989 | 0.058 |
| Adjusted R ² | 0.28 | | | | |

mean of 2.19 and 2.24 respectively) increase their overconfidence. Determinants like firm disclosure, stock past performance and management qualifications are also important but with lesser means (Table 2).

Following estimated model is developed to test determinants that affect ASE traders' overconfidence:

$$\text{Overconfidence} = \alpha_0 + \alpha_1 \text{AGE} + \alpha_2 \text{EXP} + \alpha_3 \text{FAD} + \alpha_4 \text{KN} + \alpha_5 \text{MQ} + \alpha_6 \text{INF} + \alpha_7 \text{PPER} + e_i$$

Where AGE refers to age, EXP refers to experience, FAD refers to financial advisor, KN refers to investor knowledge, MQ refers to management qualification, INF refers to firm disclosed information and PPER refers to stock past performance.

Investors' overconfidence is described by the explanatory variables shown in Table 3. These results are obtained by using a stepwise regression. This Table 3 clarifies that the overconfidence determinates which have statistical significant effect are investors experience and knowledge of the financial market.

5. CONCLUSION

Due to the impact of overconfidence on the investment decision, the purpose of this study is to investigate the factors that influence the investors' overconfidence. This study shows that ASE investors are overconfident; they think they are better than others, which lead them to trust their abilities and skills, and they trust their expectations to make an investment decision. Furthermore, regression analysis results reveal that investors experience and knowledge are the most important factors with statistical significant effect on their overconfidence.

As the investors have more years of financial markets experience and have more financial knowledge, their overconfidence will be increased. These results are consistent with Hung and Yoong (2010), Kramer (2014) who find the higher level of knowledge may raise overconfidence, and are consistent with Kirchler and Maciejovsky (2002) who find that the relationship between investors' overconfidence and their experience is positive one.

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