Making Equity Investing Decisions: A Survey of UAE Investors

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ABSTRACT

The objectives of this paper are to identify the general practices of individual and professional investors regarding investment analysis in the United Arab Emirates and to investigate the existence of an association between the time horizon and the relative importance of the techniques that individual and professional investors use for investment analysis. The results indicate that individual investors and professional investors tend to agree on the level of importance of factors predicting stock prices in the short term, the level of importance of factors predicting stock prices in the long term, and the level of importance of factors in constructing stock portfolios. However, they tend to disagree on the degree of importance of factors in stock valuation, the level of importance of factors predicting stock prices, the degree of use of profit-based measures, the degree of use of market value-based measures, the degree of use of discounted cash flow measures, and the degree of use of technical indicators. Demographics do not appear to affect individual investor's equity investing decisions.

Introduction

Financial literacy refers to an individual's ability to make informed judgments and effective decisions about the use and management of his or her money. Traditional financial theory assumes that investors are rational and maximize their wealth, based on the risk-return tradeoff. On the other hand, research in behavioral finance provides evidence that investors' financial decisions are also affected by internal and external behavioral factors (Shefrin, 2000; Shleifer, 2000; Warneryd, 2001). Examination of companies' fundamentals can explain and predict their growth and value added potential. However, in many cases, fundamental analysis fails to explain the past effectively or predict the future reliably. Largely as a result of these failures, scholars have started to look further than fundamentals to the role of other non-fundamental influences on financial and stock markets.

The objectives of this paper are twofold: (1) to identify the general practices of individual and professional investors regarding investment analysis in the United Arab Emirates and (2) to investigate the existence of an association between the time horizon and the relative importance of the techniques that individual and professional investors use for investment analysis.

Literature Review

Empirical evidence suggests that professional investors use a range of practices and various techniques for market forecasting across different time horizons (Lui and Mole, 1998). Lewellen, Lease, and Schlarbaum (1977) reveal that investors' main source of information is through fundamental or technical analysis. Besides fundamental and technical analysis, there are other factors that influence the decision making of equity investors. Merikas, Vozikis, and Prasad (2004) surveyed 150 investors and found out that most of the variables that were rated important were classic wealth maximization criteria such as "expected corporate earnings", "condition of financial performance", "firm status in the industry". In addition, a significant number of respondents were influenced by factors like "get rich quick", "feeling for a firm's product and services", and "reputation of the firm".

The media records public knowledge and opinions and focuses public attention and interest on certain issues, and it frames issues through "persistent patterns of cognition, interpretation, and presentation, of selection, emphasis, and exclusion" (Gitlin, 1980), providing institutional and cultural accounts within which the appropriateness and desirability of actions can be evaluated (Elsbach, 1994). Newspapers have an impact on how investors might evaluate stocks. According to Shive (2008), local news s

about the companies could drive the results.

Internet has a significant impact on investors. According to Barber and Odean (2001), the internet lowers costs and gives more alternatives that clearly benefit investors. However, the new internet based environment also may have a dark side. Many of today's investors are new to the market. Placing trades directly, rather than through a broker, can give such investors an overstated sense of control over the outcome of their trades, which can be very dangerous. The reason is that prior beliefs may lead them to become overconfident in their ability to pick stocks and other securities.

Noise affects investors' behavior in many ways. According to Alpert and Raiffa (1982), noise traders are traders who mistakenly believe that they have special information about the future price of the risky asset. They irrationally depend on false signals that they get from technical analysts, stock brokers, or economic consultants and believe that these signals carry information.

Maditinos, Sevic, and Theriou (2007) investigate the various methods and techniques used by Greek investors when evaluating potential additions to their investment portfolios. Their results indicate that individual investors rely more on newspapers/media and noise in the market when making their investments, while professional investors rely more on fundamental and technical analysis and less on portfolio analysis.

In this paper, we investigate the various methods and techniques used by UAE investors (both individual and professional) when making equity investing decisions. We use a questionnaire survey and a series of personal interviews to examine the practice of investment analysis in terms of predicting stock market movement and stock valuation.

Research Methods

A questionnaire was designed and distributed in person to individual investors at the two UAE stock markets (Abu Dhabi Securities Exchange and Dubai Financial Market) between September and November 2009. The professional investors are stock brokers and investment managers in the UAE. The questionnaire was emailed to them and their responses were returned via email. A total of 85 individual investors and 19 professional investors completed the questionnaire. The sample of individual investors is a convenient sample while the sample of professional investors is a random sample. Table 1 shows the 10 questions that were included in the questionnaire.

1. To what degree are these factors affecting the investor's approach to value stock?
2. To what degree do investors use fundamental or technical analysis?
3. To what degree do investors think these factors are accurate in predicting stock price in the short term? 4. To what degree do investors think these factors are accurate in predicting stock price in the long term?
5. To what degree have these factors been used by investors in predicting stock prices?
6. To what degree do investors think that individual investors are relying on these factors in order to construct their stock portfolios?
7. Which profit-based measures do investors use and to what degree?
8. Which value-based measures do investors use and to what degree?
9. Which other measures do investors use and to what degree?
10. To what degree do investors use technical indicators?

Table 1: Questions Included in the Questionnaire

These questions were developed based on a survey of the literature.

The respondents were asked to indicate their responses on a three-point scale, where 3 is "a lot", 2 is "some", and 1 is "little or never". All the responses were averaged and ranked.

The analysis of variance (ANOVA) technique is used to test whether there are differences between the mean responses of individual and professional investors.

Empirical Findings

Besides the 10 main questions of interest, three questions were designed to obtain information on the individual investors' occupation in terms of the sector of employment, their educational background, and their years of investing experience.

Table 2 (opposite page) reports the employment of the respondents (individual investors). More than half of the respondents are employed in the financial services sector or the real estate and construction sector.

Table 3 presents the educational background of the respondents (individual investors). Almost half of the respondents have a bachelor degree.

Table 4 shows the investing experience of the respondents (individual investors). About three quarters of the respondents have more than three years of investing experience.

Table 5 (page 6) reports the findings of the two groups of investors regarding how they might use 10 factors in their stock valuation and management process. Individual investors ranked foreign markets as the most important factor. Newspaper/media came in second and internet was ranked third, while

Employment Sector	Number	Percent
Education	9	10%
Financial services	31	36%
Real estate and construction	15	18%
Industrial	1	1%
Petroleum	7	8%
Others	24	28%
Total	**85**	**100%**

Table 2: Employment of Respondents (Individual Investors)

Education	Number	Percent
High School	17	20%
Diploma	11	13%
Higher Diploma	8	9%
Bachelor	37	44%
Master	12	14%
Total	**85**	**100%**

Table 3: Educational Background of Respondents (Individual Investors)

Investing Experience	Number	Percent
None	7	8%
1 - 2 years	15	18%
3 - 4 years	26	30%
5 - 6 years	18	22%
6 years or above	18	22%
Total	**85**	**100%**

Table 4: Investing Experience of Respondents (Individual Investors)

portfolio analysis and technical analysis were seen as the least important factors. Professional investors also ranked foreign markets as the most important factor followed by both fundamental and technical analysis and technical analysis only, while noise in the market was not perceived to be an important factor. Using ANOVA (analysis of variance) to test for the equality of means for the 10 factors between individual and professional investors, the p-value is 0.0107, indicating a rejection of the null hypothesis that the means are equal.

Table 6 presents the findings of the degree that investors perceive the listed factors are accurate in predicting the stock price in the short term. Individual investors responded that technical analysis is the most accurate way to predict the stock price in the short term. Professional investors agree with the individual investors and revealed that technical analysis is the most accurate method to predict the stock price in the short term. In addition, both investor groups agree that portfolio analysis is imprecise in predicting the stock price in the short term. Using ANOVA to test for the equality of means for the five factors between individual and professional investors, the p-value is 0.1488, indicating a failure to reject the null hypothesis that the means are equal.

Table 7 shows the findings of the degree that investors perceive the listed factors are accurate in predicting the stock price in the long term. Individual investors responded that technical analysis is the most accurate way to predict the stock price in the long term. This response is the same when they are asked the same question about the short term. This indicates that individual investors do not take time horizon into consideration when choosing a method to predict the stock price. On the other hand, professional investors responded that using both fundamental and technical analysis together is the best way. Using ANOVA to test for the equality of means for the five factors between individual and professional investors, the p-value is 0.0542, indicating a failure to reject the null hypothesis that the means are equal.

Factor	Individual Investor			Professional Investor		
	Responses	Average	Rank	Responses	Average	Rank
Fundamental analysis	85	1.82	8	19	2.11	5
Technical analysis	85	1.80	9	19	2.42	3
Both fundamental and technical analysis	85	1.91	6	19	2.47	2
Noise in the market	85	1.95	6	19	1.63	10
Portfolio analysis	85	1.58	10	19	1.74	8
Internet	85	1.99	3	19	1.74	8
Newspapers/media	85	2.01	2	19	1.79	7
Instinct/experience	85	1.96	4	19	2.26	4
Foreign markets	85	2.21	1	19	2.68	1
Government policy	85	1.89	7	19	1.95	6
Other	8	1.00	11	4	1.00	11
ANOVA p-value	0.0107					

Table 5: Degree of Importance of Factors in Stock Valuation

Factor	Individual Investor			Professional Investor		
	Responses	Average	Rank	Responses	Average	Rank
Fundamental analysis	85	1.80	3	19	2.26	3
Technical analysis	85	2.06	1	19	2.42	1
Both fundamental and technical analysis	85	1.95	2	19	2.32	2
Portfolio analysis	85	1.62	4	19	1.84	4
Other	3	1.67	5	3	1.00	5
ANOVA p-value	0.1488					

Table 6: Level of Importance of Factors Predicting Stock Prices in the Short Term

Factor	Individual Investor			Professional Investor		
	Responses	Average	Rank	Responses	Average	Rank
Fundamental analysis	85	2.02	2	19	2.16	2
Technical analysis	85	2.18	1	19	1.32	4
Both fundamental and technical analysis	85	2.00	3	19	2.26	1
Portfolio analysis	85	1.72	4	19	1.68	3
Other	6	1.00	5	2	1.00	5
ANOVA p-value	0.0542					

Table 7: Level of Importance of Factors Predicting Stock Prices in the Long Term

Factor	Individual Investor			Professional Investor		
	Responses	Average	Rank	Responses	Average	Rank
Fundamental analysis	85	1.80	7	19	2.16	4
Technical analysis	85	1.76	8	19	2.47	1
Both fundamental and technical analysis	85	1.74	9	19	2.26	3
Noise in the market	85	1.84	5	19	1.89	7
Portfolio analysis	85	2.06	1	19	1.74	9
Internet	85	1.54	10	19	1.68	10
Newspapers/media	85	1.86	4	19	1.95	5
Instinct/experience	85	1.82	6	19	1.84	8
Foreign markets	85	1.94	2	19	2.47	1
Government policy	85	1.94	2	19	1.95	5
Other	5	1.00	11	2	1.00	11
ANOVA p-value	0.0272					

Table 8: Level of Importance of Factors Predicting Stock Prices

Factor	Individual Investor			Professional Investor		
	Responses	Average	Rank	Responses	Average	Rank
Fundamental analysis	85	1.65	8	19	1.89	10
Technical analysis	85	1.66	7	19	2.11	6
Both fundamental and technical analysis	85	1.61	9	19	2.11	6
Noise in the market	85	2.02	2	19	2.16	4
Portfolio analysis	85	2.02	2	19	2.05	8
Internet	85	1.46	10	19	1.95	9
Newspapers/media	85	2.02	2	19	2.21	3
Instinct/experience	85	2.01	5	19	2.16	4
Foreign markets	85	2.05	1	19	2.42	2
Government policy	85	1.76	6	19	2.47	1
Other	4	1.50	11	1	1.00	11
ANOVA p-value	0.1421					

Table 9: Level of Importance of Factors in Constructing Stock Portfolios

Measure	Individual Investor			Professional Investor		
	Responses	Average	Rank	Responses	Average	Rank
NOPAT	65	2.00	3	19	1.58	5
EPS	65	2.12	1	19	2.16	2
ROI	65	2.03	2	19	1.89	3
ROE	65	1.97	4	19	1.63	4
P/E	65	1.97	4	19	2.26	1
Others	6	1.00	6	5	1.00	6
ANOVA p-value	0.0061					

Table 10: Degree of Use of Profit-based Measures

Measure	Individual Investor			Professional Investor		
	Responses	Average	Rank	Responses	Average	Rank
EVA	65	1.98	2	19	1.74	1
SVA	65	2.03	1	19	1.68	3
MVA	65	1.92	3	19	1.74	1
Others	7	1.29	4	6	1.00	4
ANOVA p-value	0.0489					

Table 11: Degree of Use of Market Value-based Measures

DCF Measure	Individual Investor			Professional Investor		
	Responses	Average	Rank	Responses	Average	Rank
NPV	65	1.85	4	19	1.68	5
IRR	65	1.78	6	19	2.42	1
Payback	65	2.05	1	19	1.89	3
DDM	65	1.75	7	19	1.58	9
CFROI	65	1.89	3	19	1.74	4
DCA	65	1.80	5	19	1.63	7
EP	65	1.98	2	19	1.95	2
EVM	65	1.75	7	19	1.68	5
CVA	65	1.65	9	19	1.63	7
Others	6	1.33	10	6	1.17	10
ANOVA p-value	0.0246					

Table 12: Degree of Use of DCF Measures

Technical Indicator	Individual Investor			Professional Investor		
	Responses	Average	Rank	Responses	Average	Rank
Chart	65	1.72	4	19	2.21	1
Moving average	65	1.85	2	19	2.21	1
Relative strength index	65	1.89	1	19	1.95	5
Bollinger band	65	1.72	4	19	1.58	11
MACD	65	1.72	4	19	2.00	4
Momentum	65	1.71	8	19	1.95	5
On balance volume	65	1.65	11	19	1.74	8
Parabolic bar	65	1.71	8	19	1.74	8
Stochastic oscillator	65	1.72	4	19	1.68	10
Pattern	65	1.69	10	19	1.79	7
Trend	65	1.77	3	19	2.05	3
Others	65	1.00	12	1	1.00	12
ANOVA p-value	0.0036					

Table 13: Degree of Use of Technical Indicators

Table 8 reports the findings of the degree that the listed factors have been used by investors in predicting stock prices. Individual investors ranked noise in the market as their most used factor followed by foreign markets, government policy, and newspapers/media. On the other hand, professional investors selected foreign markets and technical analysis as their top two choices followed by both fundamental and technical analysis. Using ANOVA to test for the equality of means for the 10 factors between individual and professional investors, the p-value is 0.0272, indicating a rejection of the null hypothesis that the means are equal.

Table 9 presents the findings of the degree that investors perceive that they rely on the listed factors to construct their stock portfolios. Individual investors responded that they rely the most on foreign markets. They ranked the internet and noise in the market as their second and third choices while portfolio analysis came in last. Professional investors ranked government policy first followed by foreign markets and newspapers/media. Using ANOVA to test for the equality of means for the 11 factors between individual and professional investors, the p-value is 0.1421, indicating a failure to reject the null hypothesis that the means are equal.

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Table 10 shows the profit-based measures and the extent of their use by investors. Individual investors ranked EPS (earnings per share) as their first choice followed by ROI (return on investment). On the other hand, professional investors ranked P/E (price/earnings) ratio as their first choice followed by EPS. Using ANOVA to test for the equality of means for the six measures between individual and professional investors, the p-value is 0.0061, indicating a rejection of the null hypothesis that the means are equal.

Table 11 reports what market value-based measures investors used and to what degree they use them. Individual investors ranked SVA (shareholder value added) as their most used measure followed by EVA (economic value added) while MVA (market value added) came in last. Professional investors ranked EVA and MVA as their most used measure and SVA as the least used measure. Using ANOVA to test for the equality of means for the four measures between individual and professional investors, the p-value is 0.0489, indicating a rejection of the null hypothesis that the means are equal.

Table 12 presents the DCF (discounted cash flow) measures that investors may have used and to what degree they use them. Individual investors ranked payback as their first choice followed by EP (economic profit) and CFROI (cash flow return on investment). They ranked CVA (cash value added), EVM (economic value management), and DDM (dividend discount model) as their last three choices. On the other hand, professional investors ranked IRR (internal rate of return) as their first choice followed by EP and payback. Using ANOVA to test for the equality of means for the 10 measures between individual and professional investors, the p-value is 0.0246, indicating a rejection of the null hypothesis that the means are equal.

The same 20 investors who did not use fundamental analysis also did not use technical analysis. The rest were asked to answer to what degree they use the listed factors in Table 13. The individual investors ranked relative strength index and moving average as their first choice followed by trends and stochastic oscillator. On balance volume and pattern were ranked as the least used. On the other hand, professional investors ranked chart and moving average as their first choice followed by trends and MACD (moving average convergence-divergence). Stochastic oscillator and Bollinger band were ranked as the least used. Using ANOVA to test for the equality of means for the 12 indicators between individual and professional investors, the p-value is 0.0035, indicating a rejection of the null hypothesis that the means are equal.

Summary and Conclusions

The results of this study indicate that most UAE investors consider foreign market movements when they make equity investing decisions. Portfolio analysis and market noise appear to have little or no effect on investors' approach to stock valuation. There is also a variation in the types of factors that affect individual investors and professional investors. While professional investors are more affected by both fundamental and technical analysis, individual investors are more likely to be affected by foreign markets, newspapers/media, and the internet. However, both individual and professional investors agree that foreign market is the most important factor to consider in stock valuation. Furthermore, individual investors show indifference to the techniques used across time horizons. Professional investors, on the other hand, consider technical analysis as more accurate in the short term, but prefer to use both fundamental and technical analysis in the long term.

Users of fundamental analysis show preference for profitability measures in their analysis. Among the profit-based measures, individual investors prefer to use EPS and ROI, while professional investors prefer to use P/E ratio and EPS in their analysis. For the value-based measures, SVA was the most used measure by individual investors followed by EVA while MVA came in last. Professional investors, on the other hand, used EVA and MVA the most and SVA the least. Other measures that are popular among individual investors are payback, EP, and CEROI. CVA, EVM, and DDM are the least used measures by individual investors. However, for professional investors, IRR, EP, and payback are the most popular measures. Unlike in other parts of the world, NPV and CAPM are not widely used tools for valuation among both individual and professional investors.

ANOVA results indicate that individual investors and professional investors tend to agree on (1) the level of importance of factors predicting stock prices in the short term, (2) the level of importance of factors predicting stock prices in the long term, and (3) the level of importance of factors in constructing stock portfolios. However, they tend to disagree on (1) the degree of importance of factors in stock valuation, (2) the level of importance of factors predicting stock prices, (3) the degree of use of profit-based measures, (4) the degree of use of market value-based measures, (5) the degree of use of DCF measures, and (6) the degree of use of technical indicators. Demographics do not appear to affect individual investor's equity investing decisions.

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