Professional vs. Non-Professional Investors: A Comparative study into the usage of Investment Tools

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Investors use varies tools in the investment process. Some use technical or fundamental analysis, or both in that process. The difference between those investments tools have been well documented in the financial literature. However, little have been written about the difference investment behaviour between professional and non-professional investors. The aim of the following survey research is to examine differences between professional portfolio managers to non-professional investors in their approach towards technical and fundamental analysis. We used online survey in one of the leading business portals in addition to asking professional investors in a leading investment house in Israel. The results show no significant difference between professional and non-professional investors in terms of how frequently they use fundamental and technical investment tools. Both groups of investors use more frequently fundamental tools than technical when they make buy/sell decisions. Non- professional investors use more fundamental tools such as "analysts' recommendations" when they buy stocks and more technical tools such as "support and resistance lines" when they sell stocks. Moreover, while older investors prefer fundamental tools when they buy and sell stocks, younger investors prefer to use technical tools over fundamentals. This important result might indicate that younger investor less believe in a long time consuming fundamentals analysis than their older colleagues and they rather use a more quick method that does not demand an extensive effort and knowledge.

I. Introduction

Professional investors manage our money and are suppose to be well informed and well trained investors. Different researches have examined the ability of those investors to outperform the market. Malkiel (2003) for example, found that managed funds are regularly outperformed by broad index funds with equivalent risk. Moreover, he found that those funds that produced excess return in one period are not likely to do so the next. My intention in the following research is to concentrate on the process of investment decisions and not on the result of that process. In that perspective, I want to know whether professional investors use different set of tools when they make investment decisions than non-professional. I also want to know if the extent of use of investment is correlated to years of experience and age for both the professional investors group and the non-professional.

Professional investors are expected to use more extensively well known investment tools by relatively to non-professional investors. They are also expected to use more sophisticated tools in the investment process over non-professional investors. I examined two sets of tools: fundamental and technical. The first uses firm's financial information while the later uses the stocks past price movement to predict future performance.

II. Literature Review

For many years investors used various tools to support their buying and selling stocks decisions. Two sets of tools are commonly used by investors: fundamental and technical analysis. The first uses the firm's economics data such as profits, dividends and growth projection, and the second method is based on the Dow Theory (Murphy (1999)) and uses historic price movements, and mathematical formulas to predict future returns. While fundamental analysis has been extensively researched in the finance literature, not many academics have investigated whether common practice use of technical tools can outperform the "buy and hold strategy". Example for the work that has been done in the field of technical analysis is the work of Kwon and Moon (2007) which tried to predict future price changes using technical indicators. Their prediction was based on regression with neural networks tested with 36 stocks 3.

III.   Database and Survey design

The survey 2 used in this research was consisted of two stages:
2 The
First, a group of professional portfolio managers (41 managers) at one of the major Israeli investment houses were asked to fill in a short questionnaire.
Second, an online survey via one of the leading financial portals in Israel was addressed to the users of the portal. The portal we used is widely recognized for being regularly visited by market investors, not necessarily professional. 305 users responded to the survey3.
All the respondents were asked to indicate their gender, age, and number of years of active experience in the capital market. Table 1 (in Appendix 1) reports the basic descriptive statistics of our sample. The majority of our participants were males (78.05% and 74.10% in the professionals and non-professionals groups, respectively), 30 to 40 years old (53.66% and 55.08%, respectively), and had more than 10 years of experience in stock market investments (39.02% and 40.98%, respectively).
The survey questionnaire consisted of 14 questions, 4 questions involve fundamental investment tools and 10 questions technical tools (the questions appear in Appendix 2). In each question, participants were asked to rate appropriateness of a statement on a Likert scale between 1 (strongly disagree) and 5 (strongly agree).

[1] The survey was conducted by Gil Cohen , Andrey Kudriavzev and S. Hon -Snir
[1] The first stage of the survey took place in January 2011, and the second one in March-April 2011. The "Bizportal" (http://www.bizportal.co.il/) web-site was involved.

IV.   Results

Table 1 summarizes the differences and the similarities between professional and non-professional investors when they make investment decisions. The Table shows in general that investors make more extensive use of fundamental tools than of technical ones when they make buy/sell decisions. This result might imply that both professional and non-professional investors adapt a long run investment point of view rather than a shorter one that is represented better by technical tools. No statistically significant behavior differences have been found between the two groups examined. That is, professionals and non-professionals make approximately the same use of the examined investment tools. One may argue, that we examined only the most common fundamental and technical tools available to investors and that professional investors may be using a more advanced set of tools along with the examined traditional tools.

The most popular buying and selling tool is a fundamental one analyzing the firm's financial statements for both professional and non-professional investors. The second most usable tool which is technical in type is "support and resistance lines", third, again a fundamental tool "analysts' recommendations", forth, "Moving averages" followed by the other technical tools. The described results show that investors, both professional and non-professional, use both fundamental and technical tools as a mix for achieving the best possible   decisions.

Table 1: Professional versus Non- professional use of known investment tools.

Investment Tool	Non-professional	Professional	T statistics
Analysts' recommendation	3.16	3.13	0.20
Financial Statements	3.59	3.65	0.40
Mean fundamental	3.32	3.36	0.37
Support and Resistance lines	3.07	3.22	0.52
Moving Averages	2.72	2.78	0.11
Stochastic Oscillator	1.95	1.93	0.51

RSI Oscillator			
	2.31	2.34	0.08
MACD Oscillator			
	2.3	2.2	0.2
Mean technical	2.47	2.49	0.23
Total Mean	2.78	2.75	

Next, I address the buying versus selling issue for each of the two discussed groups of investors: professional and non-professional. Table 2A summarizes the results for the former group, and Table 2B for the latter.

Table 2A shows that non-professional investors use more extensively investment tools when they buy stocks than when they sell stocks. This result agrees with our expectation that because of the "endowment effect", investors are more rational when they buy the stock and more emotional when they sell it. Moreover, they use more fundamental than technical tools when they buy stocks, while the opposite occurs when they sell it.

Table 2A: Buy versus Sell use of Investment tools by non-professional investors.

	Buy	Sell	T statistics
Analysts recommendation	3.25	3.08	3.66**
Financial Statements	3.63	3.65	1.45
Mean fundamental	3.43	3.32	3.15**
Support and Resistance lines	3.04	3.10	1.6***
Moving Averages	2.72	2.71	0.40
Stochastic Oscillator	1.93	1.98	2.86**
RSI Oscillator	2.32	2.30	0.55
MACD Oscillator	2.30	2.29	0.36
Mean Technical	2.46	2.47	0.78
Total Mean	2.74	2.71	1.75***

Notes: ** significance<0.05, *** significance<0.10

With respect to specific tools, non-professional investors make relatively frequent use of analysts' recommendations when they buy a stock and of two technical tools ("stochastic oscillator" and "support and resistance lines") when they sell it.

Table 2B: Buy versus Sell use of Investment tools by professional investors.

	Buy	Sell	T statistics
Analysts recommendation	3.20	3.07	1.09
Financial Statements	3.68	3.63	0.35
Mean fundamental	3.43	3.34	1.02
Support and Resistance lines	3.24	3.20	0.62
Moving Averages	2.78	2.78	0.00
Stochastic Oscillator	1.95	1.90	0.57
RSI Oscillator	2.34	2.34	0.00
MACD Oscillator	2.21	2.19	0.57
Mean Technical	2.51	2.49	0.66
Total Mean	2.77	2.73	1.17

Table 2B demonstrates that professional investors also use investment tools more frequently when they buy stocks than when they sell them. However, this difference and all other differences in employing specific investment tools (fundamental and technical) have not proven statistical significance.

Next I want to examine whether years of active experience in the market, age and gender affects investor's behavior. Table 3 summarizes the differences between experienced and non-experienced investors using 5 years of experience as a splitter of the data.

Table 3: The use of investment tools by Experienced and Not experienced investors.

Investment Tool		More than 5 Years	Less than 5 years	T statistics
Analysts' recommendation	Buy	3.24	3.23	0.08
	Sell	3.09	3.05	0.41
Financial Statements	Buy	3.75	3.48	2.35**
	Sell	3.66	3.44	1.79***
Support and Resistance lines	Buy	3.15	2.94	1.62***
	Sell	3.18	3.00	1.44
Moving Averages	Buy	2.82	2.63	1.53
	Sell	2.82	2.60	1.70***
Stochastic Oscillator	Buy	1.89	2.00	0.93
	Sell	1.95	2.01	0.55
RSI Oscillator	Buy	2.35	2.30	0.42
	Sell	2.30	2.31	0.09
MACD Oscillator	Buy	2.26	2.32	0.46
	Sell	2.27	2.38	0.09
Total Mean		2.76	2.69	0.45

Notes: 1. Less and more than 5 years of experience in the market as an active investor.
2. ** significance<0.05, *** significance<0.10

Table 3 shows that generally more experienced investors use investment tools more extensively than less experienced investors. This is true for both fundamentals and technical tools. However, the difference is a specifically strong for analyzing financial statement which as mentioned above, is considered the most important fundamentals tool. Table 4 concentrates on age difference of investment behavior. No differences have been found between professional and non-professional investors in terms of what is described in table 3.

Table 4: The use of investment tools by the age of the investor.

Tool Investment		More than 40 Years of age	Less than 40 Years of age	T statistics
Analysts' recommendation	Buy	3.38	3.20	1.42
	Sell	3.21	3.04	1.31
Financial Statements	Buy	3.80	3.59	1.63***
	Sell	3.84	3.49	2.67**
Support and Resistance lines	Buy	3.22	3.02	1.20
	Sell	3.15	3.09	0.35
Moving Averages	Buy	2.66	2.75	0.62
	Sell	2.57	2.76	1.20
Stochastic Oscillator	Buy	1.78	1.98	1.45
	Sell	1.80	2.02	1.67***
RSI Oscillator	Buy	2.12	2.38	1.69***
	Sell	2.07	2.36	1.85***
MACD Oscillator	Buy	2.16	2.31	0.97
	Sell	2.18	2.30	0.79
Total Mean		2.71	2.73	0.21

Note. ** significance<0.05, *** significance<0.10

Table 4 demonstrates very interesting phenomena. While older investors prefer fundamental tools when they buy and sell stocks, younger investors prefer to use technical tools over fundamentals. This result agrees with the former observed results concerning the preferences of the experienced investors over the less experienced. This important result might indicate that younger investor less believe in a long time consuming fundamentals analysis than their older colleagues and they rather use a more quick method that does not demand an extensive effort and knowledge. No differences have been found between professional and non-professional investors in terms of what is described in table 4. Finally I did not find any gender difference of behavior between man and women.

V.   Summary and conclusions

In the current study I used an online survey published at one of the leading Israeli financial portals and a questionnaire that was distributed among professional portfolio managers.
I did not find significant differences between professional and non-professional investors in terms of how frequently they use fundamental and technical investment tools. It might be the case that professional investors use a more sophisticated non conventional set of tools that are not available to non-professional investors. Both groups of investors use fundamental tools more frequently than technical ones when they make buy/sell decisions. This result may indicate a relatively long investment horizon suitable to fundamental analysis relatively to short-run investment preferences in which technical analysis is needed.
I found that non-professional investors use more fundamental tools such as analysts' recommendations when they buy stocks and more technical tools such as "support and resistance lines" when they sell stocks. Such difference in buying and selling behavior between has not been found for the professional investors group.
This study has also shed light on an important issue which is age differences impact on investing behavior. While older and more experienced investors use more traditional long run fundamental analysis, younger investors prefer less time consuming methods of stock buying or selling. That may result from their finance education and nature.

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Appendix 1

Sample descriptive statistics

Panel A: Portfolio managers (41 respondents)		
Category	Number	Percent of total
1. Gender:		
Men	32	78.05
Women	9	21.95
2. Age:		
18-30	9	21.95
30-40	22	53.66
40-50	9	21.95
50-60	1	2.44
60+	0	0.00
3. Capital market investor for:		
Less than 3 years	5	12.20
3 to 5 years	10	24.39
5 to 10 years	10	24.39
More than 10 years	16	39.02
Panel B: Market investors (305 respondents)		
Category	Number	Percent of total
1. Gender:		
Men	226	74.10
Women	79	25.90
2. Age:		
18-30	76	24.92
30-40	168	55.08
40-50	49	16.07
50-60	11	3.61
60+	1	0.33
3. Capital market investor for:		
Less than 3 years	107	35.08
3 to 5 years	29	9.51
5 to 10 years	44	14.43
More than 10 years	125	40.98

Appendix 2

Questionnaire

1. I use Analysts recommendations when I buy stocks.

2. I use Analysts recommendations when I sell stocks.

3. I use financial statements when I buy stocks.

4. I use financial statements when I sell stocks.

5. I use support and resistance lines when I buy stocks.

6. I use support and resistance lines when I sell stocks.

7. I use moving averages when I buy stocks.

8. I use moving averages when I sell stocks.

9. I use the stochastic oscillator when I buy stocks.

10. I use the stochastic oscillator when I sell stocks.

11. I use the RSI oscillator when I buy stocks.

12. I use the RSI oscillator when I sell stocks.

13. I use the MACD oscillator when I buy stocks.

14. I use the MACD oscillator when I sell stocks.