

The Role of Technical Analysis in Rationalizing the Investment Decision: Evidence from the Abu Dhabi Stock Exchange

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ABSTRACT

This study aims at verifying the role of technical analysis in the decision process of investing in the stock market- the state of Abu Dhabi's Stock Exchange. This is achieved by looking at investors' ability to use technical tools, or employing a technical analyst to help market investment decision. In this regard, the most prominent economic sectors in which he invests will be verified based on technical analysis indicators. Technical analysis is very important in the field of equity investment, so many investors prefer to use technical analysis more than basic analysis in early investment decisions, or predict future price trends where the results show that technical analysis makes it possible to predict future stock prices.

Yatırım Kararı Rasyonelleştirmede Teknik Analizin Rolü: Abu Dabi Menkul Kıymetler Borsası'ndan Kanıtlar

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ÖZ

Bu çalışma, Abu Dabi Menkul Kıymetler Borsasına yatırım yapma karar sürecinde teknik analizin rolünü doğrulamayı amaçlamaktadır. Bu, yatırımcıların teknik araçları kullanma yeteneğine bakarak veya piyasa yatırım kararlarına yardımcı olmak için teknik bir analist istihdam ederek elde edilir. Bu bağlamda, yatırım yaptığı en önemli ekonomik sektörler teknik analiz göstergelerine dayanarak doğrulanacaktır. Özkaynak yatırımı alanında teknik analiz çok önemlidir. Bu nedenle, birçok yatırımcı teknik analizi erken yatırım kararlarında temel analizden daha fazla kullanmayı veya sonuçların teknik analizin gelecekteki hisse senedi fiyatlarını tahmin etmeyi mümkün kıldığını gösterdiği gelecekteki fiyat eğilimlerini tahmin etmeyi tercih etmektedir.

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INTRODUCTION

Every investor on the stock exchange seeks the greatest possible return, so they do not hesitate to use all possible approaches that will help make the right investment decision. The investment decision is one of the most important stages of the investment process. The decision is linked to the future of the financial investor, as it is based on a trade-off and an awareness between a range of alternatives or solutions available in the market, i.e. where the requests to buy and sell meet, and whose implementation triggers trading between the constituent parties of the market (Hussein et al, 2013, p.229). Equity investments are open to both large and small investors alike. Furthermore, small investors can buy the amount they want according to their capabilities and available resources (Al-Awadhi, 2010, p. 35).

Investing in shares is fraught with many risks. It is more difficult to assess these risks because of the variety of options available to the investor. Making the wrong investment decision results in losses that can lead to bankruptcy, Therefore, investors resort to different approaches in order to try to predict the future of stock prices. The most important of which are ; technical analysis, fundamental analysis; and the unique comparison approach for each (Al-Mahmili, 2006, p. 30).

Technical analysis does not deny economic theory. It considers that price charts reflect current market supply and demand conditions. Technical analysis calls for lessons from the past, recalling past price actions in circumstances similar to current market conditions; as history often repeats itself (Kahn, 2006, p. 11).

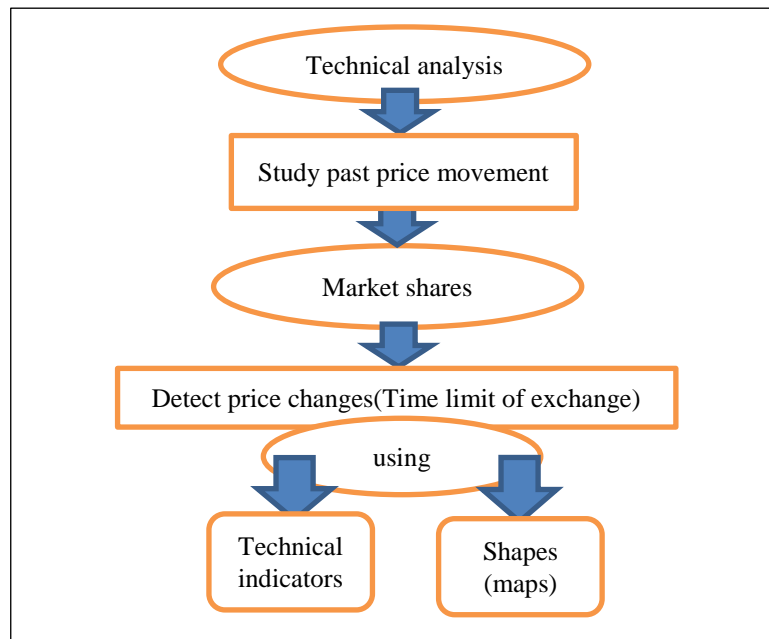
There is no doubt that technical analysis helps the investor to reduce risks and seize opportunities to enter the market in order to achieve extraordinary profits, or get out of it to avoid certain losses. This helps temporary excess liquidity enterprises by investing in high-yield instruments and low risks or vice versa (Bakhaled, 2010, p. 67).

When the signs of profit and loss appear, the smart investor or technical analyst examines the impact and extent of the move and discusses the questions: What next? Where? till when? However, the fundamental analyst looks for the reason for price fluctuation, and discusses the reasons why. Therefore, technical analysis is quick to understand price fluctuations, compared with the fundamental analysis that takes longer to decide whether to invest or not (Tamimi and Salam, 2004, p. 110).

2. TECHNICAL ANALYSIS

- An analysis that studies market movement through charts for the purpose of predicting future prices (Murphy, 1999, p. 20).
- It is a study of market movement, not the goods traded in it. Technical analysis is a science for monitoring and recording, usually in the form of a graph, to collect information on trading (price, volume, trading date) of a particular stock or group of shares; then to deduce future price directions from the historical picture drawn (Edwards, 2007, p. 4).

- **Technical analyst:** is the person who records, studies, analyzes price charts and follows the trends that shape the market movement, in order to reach the right decisions (Al-Mehlmi, 2006, p. 49); the technical analyst cares about two things: current price, and date of price fluctuation.
- **The hypotheses of technical analysis:** We can summarize the hypotheses of technical analysis in the following points (Al-Hanawi, 2005, p. 140):
 - The market value of the securities is determined only in light of the interaction between supply and demand forces.
 - Many factors control supply and demand, such as rational factors (Shares information) and irrational factors such as (opinions and guesswork).
 - The change in the relationship between supply and demand leads to a change in the direction of prices, and this change in market movement can be observed without the need to know the reasons for it. The following figure shows the stages of technical analysis



form (1) stages of technical analysis
Source: Prepared by researcher

2.1. The Advantages and Disadvantages of Technical Analysis

Technical analysis is primarily concerned with examining market movement through charts used for the purpose of predicting share price and direction (Murphy, 1999, p.1), Technical analysis has many advantages that make those interested in artistic analysis and its supporters, defend it. It also has defects that the owners of the fundamental method protest and criticize. The following is an explanation of these advantages and disadvantages:

- **Technical analysis advantages :** It can be explained in the following points (Henidi, 2008, p. 191) :

- Ease and speed. Once the means or technical base on which the analyst will depend in predicting prices is determined, their application to equities becomes a simple matter.
 - Save a lot of time and effort in analysis, because the information is derived from the market itself.
 - The required information needed by the technical analyst is available daily and regularly through the market reports in question, or through specialized bulletins.
 - The technical rule is flexible and automatically applies to any number of shares.
 - It helps determine the right time to enter and exit the market.
- The fundamental analysis depends on the accounting data; whereas the technical analysis does not rely heavily on accounting data. Because there are many problems facing accounting data, such as lack of data in a timely manner and required quality; the technical analyst is quick in his decisions to reverse accounting information that needs a lot of effort and time in order to obtain the needed results (Attia, 2011, p. 115) .
- **Technical analysis disadvantages:** The most important flaws of technical analysis are (Abu Latif , 2011, p.45):
 - Technical analysts are the ones who create for themselves the expectations they believe can happen.
 - Historical data cannot be used to predict future events, which is one of the strongest criticisms of technical analysis.
 - An investor who follows the rules of technical analysis rarely achieves abnormal returns on his investments.
 - Technical analysis cannot help make an investment decision when a new institution enters the market. This is due to the lack of historical information about the stock, which wastes strong investment opportunities for the investor.
 - One drawing has multiple readings. Although there is a general rule for technical analysis, two technical analysts may often read the same drawing in a different way; each drawing a different scenario.
 - Influenced by the opinion of the technical analyst, and the analyst's own impression of the stock when analyzing it; an optimistic analyst may focus on the rise of the stock, while not seeing the signs of decline, and vice versa (Shakraji & Bashar, 2010, p. 44).
 - Cases are not the same, not all technical models and indicators succeed, models and indicators that may succeed with the shares of a particular company may not succeed with the shares of another company (Shakraji & Bashar, 2010, p. 44).

3. EMPIRICAL ANALYSIS (ABU DHABI STOCK EXCHANGE)

Abu Dhabi Stock Exchange was established under local law No. 3 of the year 2000. Under this law, the market enjoys its financial and administrative independence and the regulatory and executive powers necessary to exercise its functions. The market opened on November 15, 2000, and aims to provide the opportunity to invest savings and funds in the stock market, protect investors and establish the foundations of proper and fair dealing. In addition, it aims to develop investment awareness to ensure that savings are directed to productive sectors and contribute to financial and economic stability (Qanwa, 2016, p. 20) .

The Abu Dhabi Stock Exchange has several of the 9 listed sectors that can be clarified in the following form:

Table 1. Economic sectors listed on the Abu Dhabi Stock Exchange

Economic sectors listed on the Abu Dhabi Stock Exchange	
1	Banking sector
2	Real estate and construction sector
3	Energy Sector
4	Consumer Services Sector
5	Insurance sector
6	Telecommunications sector
7	Industry Sector
8	Investment and Financial Services Sector
9	Services sector

Source: Annual Report, 2019, p. 20

3.1. Methodology - Sampling and Data Collection Tool

Due to the nature and objective of the study, the study community consists of the 580 investors who participated in the daily trading sessions on the Abu Dhabi market in the period July 12, 2019 to July 15, 2019. A simple random sample of (120) respondents was selected, the number of correct questionnaires was 90. The questionnaire has been built around Technical analysis as a tool to rationalize investment decision in shares: an application study on the Abu Dhabi Stock Exchange.

Section 1: Demographic data for researchers.

Section 2: Two main themes of the study, As follows:

- The first topic: the importance of technical analysis for the investor in rationalizing his investment decision.
- Topic 2: The most prominent economic sectors in which investments are made based on technical indicators.

The analytical descriptive approach was used in this study.

3.2. Research Questions

The main objective of this study is to examine the Technical analysis as a tool to rationalize investment decision in shares: an application study on the Abu Dhabi Stock Exchange .

- **What is the importance and role of technical analysis and technical analyst in investor investment decisions ?**
- **Which the most prominent economic sectors in which investors invest based on the technical indicators of the Abu Dhabi Stock Exchange ?**

3.3. Reliability and Stability Tests

Stability was extracted after the questionnaire was applied to the survey sample of 20 people, and the stability of the questionnaire was verified in two ways as follows:

- **Cronbach's Alpha:** The researcher calculated the stability factor of the scale used in the resolution by a factor method (Cronbach's Alpha), to see if when the questionnaire was redistributed at the same level and circumstances, on the same sample more than once; the results would be the same. The following table shows Cronbach's Alpha values coefficient:

Table 2. Measure questionnaire stability by Cronbach's Alpha factor

Technical Analysis Questionnaire	Value of Cronbach's Alpha
The importance of technical analysis.	0.957
The most important economic sectors are dependent on the results of technical analysis when making investment decisions.	0.719

The results shown in the previous table indicate that the value of Cronbach's Alpha was high per point and ranged from (0.719-0.957); meaning that the stability factor is high at the tool level as a whole.

- **Spearman Brown:** Questionnaire points were divided into two parts (questions with odd numbers, questions with even numbers), then the correlation coefficient value was calculated by the Spearman Brown equation. The obtained results are in the following table:

Table 3. Measure questionnaire stability by Spearman Brown

Technical Analysis Questionnaire	Value of Spearman Brown
The importance of technical analysis.	0.813
The most important economic sectors are dependent on the results of technical analysis when making investment decisions.	0.692

The results of the previous table show that the value of the Spearman Brown Correlation coefficient is acceptable and statistically significant. Thus, the questionnaire in its final form is distributable and testable.

4. FINDINGS AND DISCUSSION

Table 4. Demographic Characteristics of Respondents

Demographic Characteristics		Number of Respondents	Percent %
1- Gender	Male	66	73.3
	Female	24	26.7
	Total	90	100
2- Nationality	Emirati	37	41.1
	Arab	38	42.2
	Foreign	15	16.7
	Total	90	100
3- Age	20-30 years	9	10.0
	30-40 years	24	26.7
	40-50 years	35	38.9
	50 years and above	22	24.4
	Total	90	100
4- Education:	Can read and write	16	17.8
	Secondary	27	30.0
	Bachelor	34	37.8
	Post graduate	13	14.4
	Total	90	100
5- Time span of investment in stock market:	Less than six months	10	11.1
	A year	15	16.7
	Two years	34	37.8
	Three years and more	31	34.4
	Total	90	100
6- Volume of investment in stock market:	Less than 100000 dirham	13	14.4
	Less than 500000 dirham	32	35.6
	dirham Less than 1000000	28	31.1
	More than 100000 dirham	17	18.9
	Total	90	100
7- Type of investment:	Individual	85	94.4
	Institutional	5	5.6
	Total	90	100
Total		90	100.0

Table 4 shows that the study sample has the following characteristics:

The sample of the study included 66 males 73.3% of the total sample, and 24 females 26.7% of the total sample.

The percentage of UAE citizens was about 41.1% of the total sample, the percentage of Arab nationalities about 42.2%, and foreign nationality (non-Arab) was about 16.7% of the total sample.

The percentage of those under 30 years of age represents (10.0%) of the total sample, and of those in the age group (30 years of age to under 40) is about (26.7%), and the age group (40 years of age to under 50) has the majority of sample members, accounting for about (38.9%) of the total sample, This indicates that more than 60% of market customers are over the age of 40.

University graduates are the dominant percentage (37.8%), followed by the secondary school with about 30.0%, while the percentage of those with postgraduate qualifications was about 14.4%, close to that of those who know how to read and write, who account for about 17.8% of the total sample.

Investors in the stock market for two years or more are the dominant percentage of the study sample, exceeding (72%). This means that the opinion of experienced investors will be statistically expressive and reliable, since the market relies on over time experience for its technical analysis. While the percentage of investors for one year and less (28%), may not be as experienced, their stock market behavior also lends to the analysis.

Most investors have an investment of half a million dirhams and less (50%), which may indicate that this percentage is high because their investments are personal, and the sample included (small-medium-large) investor groups.

The majority of the sample of the study, about (94%), made personal investments in the stock market, which indicates that they have sufficient awareness of the importance of technical analysis and investment in shares that the researcher is interested in studying, and determining the extent of interest in it by investors. Meanwhile, investors in institutions are very low compared to personal investments among the members of the study sample.

Table 5. Analysis of the importance of technical analysis for the investor in rationalizing his investment decision

NO	Technical Analysis Questionnaire	Rank	Average	Standard deviation	Average percentage	Semantic
1	Technical analysis is very important in stocks investing.	1	3.90	1.55	78%	Agree
2	Information obtained from the technical analysis has significant implications for the direction of investment.	7	3.69	1.16	74%	Agree
3	Investor who follows the technical analysis is distinguished from other investors by rational and wise decisions.	13	3.54	1.15	71%	Agree
4	The degree of knowing technical analysis is considered a standard that reflects the investor's decision-making abilities.	6	3.69	1.09	74%	Agree
5	Technical analysis assists in raising my forecasting abilities for stocks prices.	11	3.58	1.21	72%	Agree

6	Using technical analysis enables determining the appropriate timing (for investment) to enter and exit the market.	10	3.61	1.19	72%	Agree
7	I can identify the company to invest in according to the technical analysis chart.	5	3.74	1.12	75%	Agree
8	I regularly follow the technical analysis.	4	3.75	1.03	75%	Agree
9	Technical analysis and its indicators enables determining the future prices of stocks.	3	3.78	1.09	76%	Agree
10	Technical analyst can greatly predict the future of stocks.	9	3.64	1.20	73%	Agree
11	Technical analyst can quickly make decisions compared to fundamental analyst.	2	3.87	1.15	77%	Agree
12	Technical analyst never dictates where the market is moving.	8	3.64	1.46	73%	Agree
13	I consider the advice and guidance of the technical analyst.	15	3.30	1.05	66%	Agree
14	Technical analyst and investor are two sides of the same coin.	20	2.99	1.01	60%	Agree
15	Technical analyst plays a significant role in my investment policy.	19	3.03	1.06	61%	Agree
16	I permanently follow the technical analyst with great interest.	17	3.13	1.16	63%	Agree
17	I have a specific technical analyst whom I trust to follow.	18	3.07	1.24	61%	Agree
18	In many of my investment decisions, technical analyst has helped me make high profits and avoid certain losses.	16	3.23	1.12	65%	Agree
19	Brokerage firms shall allocate a daily section to technical analysts explaining the price forecasts based on technical analysis.	14	3.38	1.07	68%	Agree
20	I advise all investors to use technical analysis and its rules when making investment decision and not to ignore the advice of the technical analysis.	12	3.58	1.13	72%	Agree
Overall average			3.51	0.87	70%	Agree

Table 5 shows the following:

The question of the importance of technical analysis for the investor in rationalizing investment decision, obtained a unanimous (Agree) by the study sample. The average arithmetic is (3.51) and the approval rate (70%).

Regarding the importance of technical analysis in stock investing, got the first ranking among all points, with an average of 3.90, a standard deviation of 1.55, approval rate (78%) and a verbal indication level (Agree). This may be due to the fact that technical analysis depends on forecasting and speed of decision-making, which is important in the area of investment.

The lowest score at the level of points as a whole, obtained by the fourteenth point. It states : "technical analyst and investor two sides of the same currency". It has an average of (2.99) and a standard deviation (1.01), with an average ratio of (60%) and a verbal indication level (Agree). This may be due

to the fact that the technical analyst and investor cannot be two sides of a single coin. The analyst is a paid consultant and not a rapporteur or owner of the stock. Consulting him/her is not a final decision for the investor, it is acceptable or rejectable, The technical analyst deals with the possibilities; therefore, words such as must, for sure and necessary do not exist in his dictionary. The rest of the other paragraphs in this axis fall within the level of verbal indication (Agree) from the point of view of the study sample members, where the arithmetic average ranged from (3.03-3.87) to an average ratio of (61%-77%).

Table 6. Analysis of the most prominent economic sectors, in which the investor invests based on the technical indicators of the Abu Dhabi Stock Exchange

NO	Technical Analysis Questionnaire	Rank	Average	Standard deviation	average percentage	Semantic
Which of the following sectors would you prefer to invest in, on the basis of technical analysis results? (you can choose more than one sector):						
1	Banking sector.	1	3.92	1.46	78%	Agree
2	Real estate and construction sector.	6	2.83	1.07	57%	Somewhat Agree
3	Energy sector.	7	2.78	0.95	56%	Agree
4	Consuming services sector.	5	3.12	1.09	62%	Agree
5	Insurance sector.	4	3.14	1.08	63%	Agree
6	Telecommunications sector.	8	2.75	1.10	55%	Somewhat Agree
7	Industry sector.	9	2.42	1.27	48%	Somewhat Agree
8	Investment & financial services sector.	2	3.73	1.36	75%	Agree
9	Services sector.	3	3.28	1.23	66%	Agree
Overall average			3.11	0.58	62%	Agree

Table 6 shows the following:

The question of the most prominent economic sectors in which investors invest, based on technical indicators of the Abu Dhabi Stock Exchange, obtained a unanimous (Agree). The average calculation (3.11), and the approval rate (62%), The first point, which states "banking sector," was highest among all points, with an average of 3.92, a standard deviation of 1.46, an approval rate of (78%) and a verbal indication (Agree); yielding a high degree of importance.

This may be due to the fact that investment in the banking sector is short-term and aims for quick profit. This makes technical analysis very important in order to make a profitable investment decision as soon as possible, or to avoid a potential loss. In addition, the history of trading shares in the UAE, is such that the shares of banks emerged as the first shares traded.

The seventh point, "industry sector", was the last ranking between the points. It came with an average of (2.42), a standard deviation (1.27), an average ratio of (48%) and a verbal indication level of (somewhat Agree). This may be due to the fact that investment in the industrial sector is a long-term investment in which technical analysis is not suitable. It seems preferable to use basic analysis that examines the conditions of industry, financial position, etc.

The rest of the other paragraphs in this axis fall within the level of verbal significance (somewhat Agree) and (Agree). The arithmetic average ranged from (2.75 - 3.73) to an average ratio of (55%-75%).

5. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the researcher concludes:

- The investor considers technical analysis important in making investment decisions, The decision is positively influenced by technical analysis.
- The investor relies primarily on his experience and the strength of his expectations, rather than on the strength of the expectation of technical analysis.
- The investor's reliance on technical analysis increases his ability to improve his investment decisions and is positively distinguished from other investors.
- The opinion of the technical analyst has an impact on the investor's decision, depending on the degree of investor confidence in the technical analyst and his/her ability to analyze.
- According to these results, the investor prefers investing in the economic sector (Banking sector, Investment & financial services sector), which indicates that the investor is looking for short term gains.
- The investor does not prefer using technical analysis for investing in the industrial sector, as this is considered mostly a long term investment.
- Technical analysis can be used to predict the movement of stocks and their future prices, depending on the history of any given share (as history repeats itself).
- Technical analysis is read and interpreted differently by different analysts. Some see the movement of shares in a positive manner, while others view it negatively. Therefore, decisions are made in accordance with the analysts state of thinking. That is why, it is preferable that the investor is able to read and understand the indications of technical analysis.
- It would be of benefit to conduct future studies targeting the type of investor personality and variables leading to decision making processes, especially during unpredictable World events such as the current Ukrain crisis that has the stock market quite volatile

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