

# The Effect of Social Media on Making Investment Decisions for Investors in Amman Financial Market

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The study aimed to identify the impact of the new media on making investment decisions for investors in Amman Financial Market, by reviewing the most important economic and financial data and information that can be transferred by the new media, identify the most important and most new media influencing the decisions of investors in Amman Financial Market, and identify the impact of new media on investors' decision-making in Amman Financial Market. The analytical descriptive approach was relied upon, by designing a questionnaire and distributing it to the study sample consisting of 150 investors in Amman Financial Market who were randomly selected, and using the appropriate statistical methods represented by iterations, percentages, variance testing, regression and correlation test, in addition to the stability factor (Cronbach - alpha). The study reached a set of results, the most important of which are:

- Investors in Amman Financial Market use social media with (60%) and specialized websites with (40%) to obtain economic and financial information and data that helps them in making and rationalizing their investment decisions.
- Facebook is the most social media site used by investors in Amman Financial Market to obtain opinions, comments, and advice regarding investment decision-making with (51.3%).
- Amman Financial Market Website (ASE) is one of the most specialized websites on which investors in Amman Financial Market rely on to obtain information, data and news related to their investment decision, with (78.0%).
- There is a statistically significant effect of new media applications and forms represented by specialized websites and social media on investment decision-making and rationalization.



**Key words:** *social media - investment decisions - investors - Amman Financial Market*

## **Introduction**

The world is witnessing rapid development in communication, which largely reflected on media in general, that combined information and communication technologies where many researchers in communication sciences and other social sciences have turned in recent years to study the implications and effects of new media on individual's lifestyles, thinking and behavior, as well as its effect on the sociological and cultural structure of societies (Shafiq, 2014).

The emergence of the media has brought it to unprecedented horizons, and has given its users great opportunities to influence and move across borders without restrictions and censorship only in a relative and limited manner, as the emergence of new media has created channels for direct broadcasting in a development that changes the essence of known communication theories, and stops monopoly of making media message to carry it into a wider and more comprehensive range, with an influential and interactive capacity that communication experts had not imagined.

On the other hand, the decision-making process in general is considered one of the most important elements and the most impact on the work of individuals, due to the fact that it is the necessary process inherent in every work that an individual performs and his actions, whether it is at the level of his private life or at the level of jobs and tasks assigned to him in his work, therefore, taking decisions include every step in any individual's work (Abu Hamad and Ali, 2015).

The decision-making process faces some problems that hinder it from achieving the desired goals, and one of the most important and most prominent of these problems is the lack of information necessary for decision-making, there is no doubt that information and knowledge constitute the backbone of the decision-making process, and it is an investment resource if employed effectively using information and communication technologies technics, information and knowledge acquire this importance because the efficiency of decisions taken at all levels depends on the availability of information needed by the decision maker.

New media is an effective tool for transmitting information of all kinds, and it is an essential pillar in covering economic investment activities, reviewing ideas and benefits of investments to a targeted group of investors, at appropriate times and conditions to achieve investment goals easily, where it is possible now for any investor to obtain information from any stock exchange market while sitting home or in his office at any time, which has led to an increased dependence of the investor in the stock market on these means in making rational decisions (Al-Sayed, 2016).



New media as defined by Jones Kumari, (2018) is "all types of electronic communication that are based on the use of computers and modern media, distinct from traditional media as a counterpart, which includes written journalism, television and radio."

Based on the foregoing, this study came to clarify the concept of new media, its importance and the extent of its impact in making investment decisions for investors in Amman Financial Market.

### **The study Problem**

The new media plays an important role in the transmission of information and knowledge in general, since it is characterized by the speed in transmitting information and news, and the ease of obtaining them at any time and in any place, and the majority of communication studies focused for a long time on the impact of the media on the knowledge, perceptions, trends and behaviors of the public. However, there are limited studies about the impact of new media on the stock market and on investor decision-making, especially with the global developments in capital markets.

Several studies have shown that the provision of new media for information and news, especially financial and investment, has an important and effective role in influencing investment decisions made by investors, where the study results of (Abu Hamad and Ali, 2015) confirmed that the new media has an important role in influencing decisions investors by transferring data, information, facts and ideas to these investors quickly and around the clock.

The study results of Bollampelly (2016) also showed that social media and websites are working to transfer more financial news and information in a timely manner to investors, which leads to rationalization of their investment decision-making process, and the Pelster & Gonzalez study (2016) confirmed that there is an important influence of social media on the decision-making of investors to buy or sell shares traded in the global financial market, and that these investors rely heavily on social media to circulate information related to the market prices of shares.

Planning to attract investors in the financial market, whether they are local or foreign investors, requires knowledge of any media that is more influential in their decisions, in order to attract them and create the appropriate environmental conditions to practice their investment activities with full conviction, due to the importance of their investments in the financial market in providing important cash liquidity in catalyzing economic development.

In light of the lack of any independent study looking to reveal the impact of the new media in making investment decision in Amman Financial Market - within the limits of the researcher's knowledge - in the Jordanian environment, and the paucity of studies in the Arab

environment, most of the studies that dealt with the impact of the new media on taking investment decisions was foreign. Therefore, the researcher decided to carry out this study.

Based on the above, the study problem can be determined by answering the main question: "What is the effect of the new media on making investment decisions for investors in Amman Financial Market?"

### **Study questions**

This study seeks to answer the following questions:

1. To what extent the investors in Amman Financial Market are using new media applications to obtain investment information?
2. What are the most important data, information, economic and financial news that an investor in Amman Financial Market can obtain from the new media?
3. What is the most influencing new media that affect investment decisions in Amman Financial Market?

### **Study hypotheses**

This study seeks to test the following hypotheses:

The first main hypothesis: H01: There is no statistically significant effect at the level ( $\alpha \leq 0.05$ ) of the new media (specialized economic websites - social media) on making investment decisions (sale decision - purchase decision - non-trading decision) among investors in Amman Financial Market.

The following main hypotheses are subdivided into the following hypotheses:

H01-1: There is no statistically significant effect at the level ( $\alpha \leq 0.05$ ) of social media on making investment decisions (sale decision - purchase decision - no trading decision) among the investors in Amman Financial Market.

H01-2: There is no statistically significant effect at the level ( $\alpha \leq 0.05$ ) of specialized economic websites on making investment decisions (sale decision - purchase decision - non-trading decision) among investors in Amman Financial Market.

The second main hypothesis: H02: There are no statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the trends of investors in Amman Financial Market towards the effect of

new media on their investment decisions and rationalization according to their demographic characteristics (gender - age group - educational level - years of experience).

The following main hypotheses are subdivided into the following hypotheses:

H02-1: There are no statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the trends of investors in Amman Financial Market towards the extent of the impact of new media on their investment decisions and rationalization according to gender.

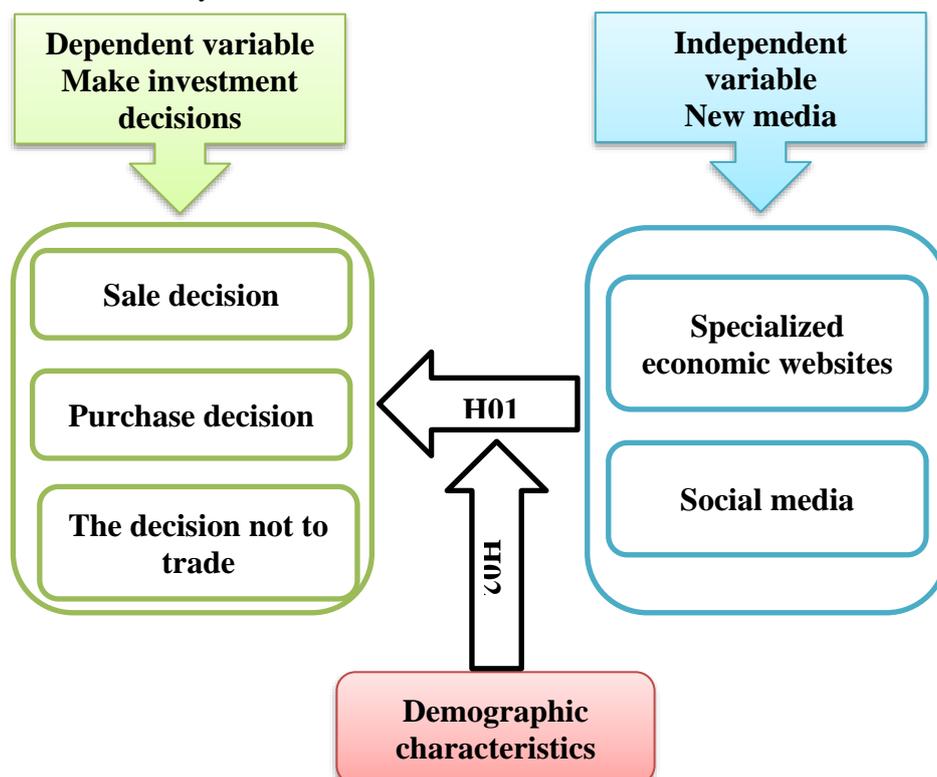
H02-2: There are no statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the trends of investors in Amman Financial Market towards the extent of the impact of new media on their investment decisions and rationalization according to the age group.

H02-3: There are no statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the trends of investors in Amman Financial Market towards the extent of the influence of new media in their investment decisions and rationalization according to the educational level.

H02-4: There are no statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the trends of investors in Amman Financial Market towards the extent of the influence of new media in their investment decisions and rationalization according to years of experience.

### Study model

Figure (1) shows the study model





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## Previous studies

A study by Kadous and others (Kadous, et al, 2019) “The impact of social media tips on investment decisions”.

This study aimed to identify how investors in securities respond to the advice provided through social media, and also to identify the impact of information provided by social media on the upward or downward situations of shares traded in the financial market on investment decision, in addition to identifying the source's credibility information in social media and to the degree of investor confidence in this information, the study reached a set of results, the most important of which are:

Most investors rely on the advice directed to them through social media in making their investment decisions, and they believe that these advice directed to them predicts the future returns of securities and therefore should be used in making the decision to buy or sell or not to trade, as the results showed that the source of information related to financial statements via social media platforms are of great importance in the process of influencing the investment decision of investors.

Kumari Study (2018): “The impact of social media on the basis of decision making for an individual investor”.

The study aimed to try to identify the extent of the influence of social media in creating a feeling of bias in the minds of individual investors during investment decision-making, and to identify individual daily interaction on social media platforms, important or effective inputs or the relative information obtained from these platforms which interest of the investors, the study reached most of the sample members of the investors who resort to social media in obtaining important information to make investment decision, whether by buying or selling, and that most of them care about the source and credibility of the information that is published through these means.

Tham Study (Tham, 2018):"The Impact of Social Media on Family Investors and Their Participation in Stock Markets"

The study aimed to identify the extent of household investor confidence in social media to obtain information related to their investment decisions, and to reveal how social media affects the rate of household participation in stock markets in Florida. The study found that trust in social media to make the investment decision was volatile, as this confidence was high in the late nineties to the early twenty first century through social media and internet bulletins, but it gradually decreased from 2008 to 2015, and then after this confidence increased gradually again, the results also showed that the information investors obtained



through social media were influential and statistically significant in making investment decisions.

(Amman & Schaub, 2017): "The impact of internet publications on individual investors".

This study aimed to identify the impact of information, topics and comments published on the internet in making the investment decision of individual investors, and to achieve the goal of the study, the survey method was used by collecting data from one of the largest social trading platforms and covering the time period from January 2013 to December 2014. The results of the study showed that publishing positive comments affects the decisions of investors who follow these comments, and that although the comments do not have a predictive power for the future performance of stocks in investment portfolios, they affect the buying or selling decision-making process for investors following these comments.

Assayed Study (2016): "The impact of information acquired by the individual through the Internet on investment decisions in the stock market".

This study aimed to reveal the impact of the information acquired by the investor through various internet sites on his investment decisions in the stock market by applying on the Egyptian Stock Exchange, the study concluded that the internet is a rich media means that has the ability to communicate a large amount of information and detailed data related to securities market, which generate low level of ambiguity among investors regarding investment decision, the use of internet as a media tool reduces also the uncertainty of investors and increases confidence in investment decisions, as the results of the study showed a relationship between demographic factors and the degree of impact information provided through the internet on investment decision-making, which is (gender - educational level - monthly income level - job).

Bollampelly Study (2016): "Understanding the role of social media in investor response".

The study aimed to identify the role of social media in influencing investor decisions and reactions about data and information drawn from these means, the study reached a set of results, the most important of which are due to the increase in technology and its applicability, many investors rely on news from non-traditional sources such as financial news sites and social media from the internet, and the results also showed that most of the sample of investors agreed that financial news from social media makes decision-making easy.

## Study methodology

The study relied on the descriptive analytical approach and this approach is based on describing a phenomenon to reach the causes of this phenomenon and the factors that control it, and to draw conclusions for its generalization (Teseleanu, 2007).

## Study community

The study community consisted of all the investors in stocks, bonds and financial instruments in Amman Financial Market for the year 2019, in total of 653 investors (<https://www.ase.com.jo/en>).

## Study sample

A simple random sample was chosen from the study population, sized 150 investors, they constituted approximately (23%) of the study population. The study tool was distributed to them, and the following tables show the general characteristics of the study sample.

**Table (1) Distribution of the study sample according to personal variables**

Variable	Variable	Repetition	ratio
Gender	Male	127	84.7%
	Female	23	15.3%
	Total	150	100%
Education level	diploma and below	22	14.7%
	Bachelor's degree	120	80.0%
	Postgraduate (Master and Doctorate)	8	5.3%
	Total	150	100%
Age group	25 and under	10	6.7%
	From 25- less than 35 years	15	10.0%
	From 35 - less than 40 years	36	24.0%
	From 40 to 50 years	60	40.0%
	More than 50 years	29	19.3%
	Total	150	100%
Years of experience	Less than 5 years	36	24.0%
	5-10 years	62	41.3%
	More than 10 years	52	34.7%

It is clear from Table (1) that most of the study sample individuals were male investors in Amman Financial Market (127) investors, who formed (84.7%), while females constituted only (15.3%).

It is also clear that most of the study sample individuals were investors in Amman Financial Market who hold bachelor's degree (120) investors, who constituted (80.%), followed by diploma holders and less, at a rate of (14.7%). Higher degrees (master's and doctorate) from investors in the last rank and by (5.3%).

Table (1) data indicates that (40.0%) of the study sample of investors in Amman Financial Market were within the age group (from 40-50 years), forming the highest percentage, followed by those in the category ( From 35- less than 40 years) with a percentage of (24.0%), then by those with the age group (more than 50 years) with a percentage of (19.3%), followed by the category (from 25- under 35 years) with a rate of (10.0%), and in the last rank of those within the age group (less than 25 years), at a rate of (6.7%).

It is also clear from Table (1) that (41.3%) of the study sample from the investors in Amman Financial Market had experience in investment field ranging between (5-10) and they are the major category of the sample, followed by experienced (more than 10 years) at a rate of (34.7%), and finally by those with experience (less than 5 years) with a rate of (24.0%).

### **Results related to study questions**

#### **Results related to the first question: (To what extent are investors in Amman Financial Market use new media applications to obtain investment information?)**

To answer this question, the responses of the sample individuals from investors in Amman Financial Market were collected on a set of questions that measure the extent of investors' use of new media applications from their point of view. The results were as follows:

- 1. Do you use new media applications to obtain investment information?*

**Table (5) Answers sample on using new media applications**

<b>Answer</b>	<b>repetition</b>	<b>ratio</b>
Yes	150	%100
No	00	%00
Total	<b>150</b>	<b>%100</b>

From the previous table, it is clear that all individuals of the study sample who are investors in Amman Financial Market use new media applications as one of the sources from which they draw their investment information.

2- On average, how many hours do you spend using these applications per day?

**Table (6) Answers sample on using new media applications rate per day**

Daily use ratio	repetition	ratio
Less than 1 hour	33	%22.0
1-2 hours	20	%13.3
More than 2 hours	97	%64.7
Total	<b>150</b>	<b>%100</b>

It is clear from the previous table that most of the study sample individuals are investors in Amman Financial Market who spend more than two hours using new media applications in their quest to obtain investment information, as they numbered (97) investors, constituting a rate of (64.7%), and it is also clear that (22.0%) of the study sample investors who use new media applications in their quest to obtain investment information for less than an hour per day, and (13.3%) of them use those applications at a rate ranging between (1 to 2 hours) per day.

3- What new media applications do you usually use to obtain investment information?

**Table (7) Sample answers to new media applications that they use to obtain information**

New media applications	repetition	ratio
Social media	90	%60.0
Specialized websites	60	%40.0
Total	<b>150</b>	<b>%100</b>

It is clear from the previous table that (60%) of the investors in Amman Financial Market sample study use social networking sites to obtain investment information, and (40%) use specialized websites in the economy, indicators and financial data.

**Results related to the second question: (What are the most important data, information, economic and financial news that an investor in Amman Financial Market can obtain from the new media?)**

To answer this question, the responses of the sample individuals from the investors in Amman Financial Market were collected on a set of questions that measure the most important data, information and economic and financial news that they can obtain from new media applications, and the results were as follows:

1- *What are the most important data, information, economic and financial news that you can get from new media applications (social media sites)?*

**Table (8) Sample answers the most important data and information they obtain through social media**

<b>Data, information and news</b>	<b>repetition</b>	<b>ratio</b>
Opinions and comments about investor confidence in a particular institution.	<b>120</b>	<b>80.0%</b>
Future expectations of stock and bond prices.	<b>10</b>	<b>6.7%</b>
Brokers' advice to direct a specific investment.	<b>90</b>	<b>60.0%</b>
Financial bulletins and data of public joint-stock companies.	<b>50</b>	<b>%33.3</b>
Technical analysis of stock trends up or down.	<b>15</b>	<b>%10.0</b>
Economic decisions and government financial policies.	<b>10</b>	<b>%6.7</b>
Domestic macroeconomic indicators.	<b>20</b>	<b>%13.3</b>
Economic conditions of neighboring countries.	<b>30</b>	<b>%20.0</b>
Global economic and financial indicators	<b>10</b>	<b>%6.7</b>

It is clear from the previous table that all members of the study sample use social networking sites to obtain data, information, economic and financial news that help them making their investment decision, and that most of them use these sites to obtain opinions and comments about the confidence of investors in a particular institution in order to help them make their investment decision, their percentage was (80.0%), followed by those who use social media for obtaining advice from intermediaries in a specific investment, at a rate of (60.0%), followed by those who use social media to obtain bulletins and financial data for public joint-stock companies, with a percentage of (33.3 %).

It is also noted from the previous table that investors in Amman Financial Market use social media sites for other purposes in a percentage that did not exceed (20.0%), where (20.0%) sees that their use of social networking sites is for the purpose of identifying the economic conditions of neighboring countries, while (13.3%) use social media to read local macroeconomic indicators, and (10.0%) use these sites to view technical analyzes of the direction of stocks on the stock exchange, and (6.7%) use them to identify global economic and financial indicators and the most important economic and financial governmental policies and decisions, in addition to the future expectations of stock and bond prices in financial markets, in particular Amman Financial Market.

- 2- *What are the most important data, information, economic and financial news that you can obtain from the new media (specialized economic websites)?*

**Table (9) sample answers about the most important data and information they obtain through specialized economic websites**

Data, information and news	repetition	ratio
Opinions and comments about investor confidence in a particular institution.	15	2.3%
Future expectations of stock and bond prices.	95	14.6%
Brokers' advice to direct a specific investment.	20	3.1%
Financial bulletins and data of public joint-stock companies.	90	13.8%
Technical analysis of stock trends up or down.	120	18.5%
Economic decisions and government financial policies.	80	12.3%
Domestic macroeconomic indicators.	55	8.5%
Economic conditions of neighboring countries.	60	9.2%
Global economic and financial indicators	115	17.7%

previous table shows that all members of the study sample use specialized economic websites in order to obtain data and information, economic and financial news that help making their investment decision, and that most of them use these sites to obtain technical analysis for stocks indicators, in order to identify the shares that make profits, where they formed (80.0%), followed by those who use specialized websites to identify global economic and financial indicators, at a rate of (76.7%), followed by those who use these specialized sites to know the most important future expectations of stock and bond prices(63.3%), followed by those who use specialized websites to read the bulletins and financial statements of public joint-stock companies, at a rate of (60.0%), then by investors who achieve the goal of identifying economic decisions and government financial policies at a rate of (53.3%).

It is also noted from the previous table that the rest of the purposes of investing in Amman Financial Market for specialized websites came at a small percentage that did not exceed (40.0%), where (40.0%) sees that their use of specialized websites is for the purpose of identifying the economic conditions of neighboring countries, and (36.7%) use specialized websites to read local macroeconomic indicators, while (136.3%) of them use these websites to seek advice from intermediaries in a particular investment, and (10.0%) of them were to find opinions and comments about investor confidence in a particular institution .

**Results related to the third question: (What is the most influential new media on investment decisions of investors in Amman Financial Market?)**

To answer this question, the responses of the sample individuals among the investors in Amman Financial Market were collected on a set of questions that measure most social media sites as a new media application, in order to influence their investment decisions, and the results were as follows:

1- *In your perspective, what is the most influencing new media on your investment decisions (social media)?*

**Table (10) Sample answers on the most influential social media on their investment decisions**

Social media	Repetition	ratio
Facebook	77	51.3%
Twitter	16	10.7%
Whats app	42	28.0%
Online forum	15	10.0%
total	<b>150</b>	<b>%100</b>

The data of the previous table indicate that most of the sample individuals (77 investors) in Amman Financial Market see that (Facebook) is the most influential social networking site in their investment decisions (51.3%), while (28.0%) believe that (Whatsapp) is the most influential application in their investment decisions, and (10.7%) believe that (Twitter) is the most influential in their investment decisions, while (10.0%) of them believe that electronic forums are the most influential.

2- *In your perspective, what is the most influencing new media on your investment decisions (specialized websites)?*

**Table (11) Sample responses to the most specialized websites that influence their investment decisions**

Websites	Repetition	Ratio
Maymoney.com	2	1.3%
Morningstar.com	6	4.0%
Bloomberg.com	25	16.7%
ASE.com	117	78.0%
total	<b>150</b>	<b>%100</b>

The data of the previous table indicate that most of the sample individuals (117 investors) in Amman Financial Market believe that Amman Financial Market website (ASE) is the most influential website in their investment decisions who form (78.0%). While (16.7%) believe that Bloomberg is the site that influences their investment decisions, and (4.0%) think that Morningstar is influential in their investment decisions, while (1.3%) of them believe that (MyMoney) influences their investment decisions.

### Results related to testing the study hypotheses

To test the study hypotheses, the multiple and linear regression equation was relied on for the first main hypothesis and its sub-hypotheses, and the ANOVA variance for the second main hypothesis and its sub-hypotheses.

## Results related to the first major hypothesis

Before starting the first main hypothesis test, it was necessary to verify the validity and relevance of the data obtained through the responses of the sample individuals from the investors in Amman Financial Market to the regression model used, as follows:

### 1- Natural Distribution Test

The researcher used a test (Kolmogorov-Smirnov) (KS) to verify that data follow normal distribution, and the results of the analysis referred to in Table (12) showed that data of the current study followed natural distribution approach, and showed that there were no statistical differences between the distribution of variable values and the values of the normal distribution is at the significance level ( $\alpha \leq 0.05$ ).

**Table (12) Normal distribution by applying Kolmogorov-Smirnov (K-S) test**

field	value of the test	Significance level
Social Media	0.97	0.77
Specialized websites	0.94	0.71
Purchase decision	0.197	0.199
Not to trade	0.137	0.64
Sale decision	0.151	0.151

### 2- Linear non-interference test

The researcher used the Variance Inflation Factor (VIF) test and the Allowed Variance (Tolerance) to check the level of linear interference between the dimensions of the independent variable. The results show that dimensions in the independent variable do not suggest a problem of linear interference according to what was indicated in Table (13), where it was found that the values of the Variance Inflation Factor (VIF) are less than (5), and the allowable variance values are more than (0.01).

**Table (13) Results of linear interference test between dimensions of the independent variable**

Variables	Variables	
	Coefficient of contrast amplification VIF	allowed variance Tolerance
Social Media	1.751	0.801
Specialized websites	1.045	0.812

### 3- Test the independence of the dimensions of the independent variable

The Pearson correlation coefficient matrix (Person) was calculated to know the relationship between the study variables, with the aim of detecting the presence of a linear correlation between them, and Table No. (14) shows the results of the correlation coefficients as follows:

**Table (14) Matrix correlation coefficients between variables in the study**

Variables	1	2	3	4	5
Social Media	1				
Specialized websites	.389**	1			
Purchase decision	.268**	.224**	1		
not to trade	.407**	.418**	.381**	1	
Sale decision	.273**	.328**	.288**	.210**	1

\*\* Correlation coefficient is statistically significant at the significance level of 0.01

Table (17) indicates that the correlations between the dimensions of the study are significant and statistically significant at the level of significance ( $\alpha \leq 0.05$ ), and that the correlation values between the dimensions of the independent variable were less than (0.90), and thus the data is judged that there is no complete correlation between dimensions of the independent variable and the dimensions of other variables.

### 4- Indicators of conformity quality between the model and the study data

Constructive quality indicators for the study model (regression model) were extracted and the results are shown in Table (15).

**Table (15) Quality indicators of conformity of the model to the study data**

index	Acceptance criterion	Index value	result
(CMIN/DF)	Less than 3	1.97	Acceptance
(GFI)	More than 0.90	0.95	Acceptance
(AGFI)	More than 0.90	0.93	Acceptance
(CFI)	More than 0.90	0.91	Acceptance
(RMSEA)	Less than 0.08	0.05	acceptance

CMIN/DF: Chi-square/degrees of freedom), GFI: Goodness of Fit Index, AGFI: Adjusted Goodness of Fit Index, CFI: The comparative fit index, RMSEA: root mean square error of approximation.

Table (15) shows that all indexes in the model came with acceptable values, and the ratio of the square of CHI (CMIN / DF) reached a value of (1.97) which is less than (3), and the value of the Goodness of Fit Index (GFI) reached a value of (0.95) which is greater than the minimum allowed value (0.90), and the value of the Adjusted Goodness of Fit Index( AGFI) was (0.93) which is also greater than (0.90). Also, the value of the Comparative Match Index (CFI) is equal to (0.91) and is greater than (0.90). As for the Root Mean Square Error of

Approximation (RMSEA), which indicates an acceptable affinity error, it reached (0.05) which is less than (0.08). Based on these results, the first main hypothesis and its sub-hypotheses are sub-tested without any statistical problems.

**H01: There is no statistically significant effect at the level ( $\alpha \leq 0.05$ ) of the new media (specialized economic websites - social media) on making investment decisions (sale decision - purchase decision - non-trading decision) among investors in Amman Financial Market.**

The researcher used multiple regression analysis to determine the impact of (social networking sites, specialized websites) in making investment decisions among investors in Amman Financial Market, as shown in table (16).

**Table (16) Multiple regression analysis of the impact of new media on investment decisions**

Dependent Variable	Model Summary		Analysis of Variance			Coefficient				
	Correlation coefficient	R <sup>2</sup>	F	d.f	Sig F*	Statement	$\beta$	Standard error	t	Sig T*
investment decision	0.904	0.818	588.66	3	0.000	Social media	0.181	0.067	6.47	0.000
						Websites	0.261	0.024	7.85	0.000

\* Statistically significant at the level of significance ( $\alpha \leq 0.05$ ).

The results of Table (16) indicate that the correlation coefficient ( $R = 0.904$ ) indicates a positive and strong relationship between independent variables (social media - specialized websites) and the dependent variable (investment decision), Also, the effect of independent variables on the dependent variable is statistically significant, where the calculated value of F is (588.66) and at the level of significance ( $Sig = 0.000$ ) which is less than (0.05), And the value of the coefficient of determination ( $R^2 = 0.818$ ), which indicates that (81.8%) of the variation in the investment decision of investors in the Amman Financial Market can be explained by the variation in the use of social media and specialized websites and the extent of dependence on them.

As for the table of transactions, it has been shown that the value of  $\beta$  at (social media sites) has reached (0.181) and that the value of T is (6.47), with level of significance ( $Sig = 0.000$ ), which indicates that the impact of social media on the investment decision is statistically significant, As for the value of  $\beta$  for (specialized websites) its (0.261) while the value of T is (7.85) and the level of significance of ( $sig = 0.000$ ), which indicates that the impact of specialized websites on the investment decision is statistically significant.

Based on the above analysis, we cannot accept the first major nihilistic hypothesis but we can accept the alternative hypothesis which says: There is a statistically significant effect at the level ( $\alpha \leq 0.05$ ) for the new media (specialized economic websites - social media) to make

investment decisions (sale decision purchase decision - a decision not to trade) for investors in Amman Financial Market.

From the first main hypothesis, the following sub-hypotheses are derived:

### Results related to the first sub hypothesis

**H01-1: There is no statistically significant effect at the level ( $\alpha \leq 0.05$ ) of social media on making investment decisions (sale decision - purchase decision - no trading decision) among the investors in Amman Financial Market.**

**Table (17) The results of simple regression test for the impact of social media on investment decision-making by investors in Amman Financial Market**

Dependent Variable	Model Summary		Analysis of Variance			Coefficient				
	Correlation coefficient	R <sup>2</sup>	F	d.f	Sig F*	Statement	$\beta$	Standard error	t	Sig T*
investment decision	0.774	0.599	987.493	1	0.000	Social media	0.774	0.081	17.211	0.000

\* Statistically significant at the level of significance ( $\alpha \leq 0.05$ ).

Table (17) results indicate that the value of ( $r = 0.774$ ), and this means that there is a correlation value (77.4%) which is considered high (Zikmund, 2000) between social media and investment decision-making with investors in Amman Financial Market.

It turns out that the value of the determination coefficient is ( $r^2 = 0.599$ ), which means that the use of social networking sites has explained (59.9%) of the discrepancy in investment decision-making with investors in Amman Financial Market, and (40.1%) as a result of other factors not covered by this study.

It also appears from the table of transactions that the value of ( $f$ ) has reached (987.493) at a confidence level ( $\text{sig} = 0,000$ ) and this confirms the significance of the regression at the level ( $\alpha \leq 0.05$ ) and at one degree of freedom.

The table of transactions also shows that the value of ( $\beta = 0.774$ ), that is, the change in one unit in the extent of using and relying on social media leads to a change of (77.4%) in making the investment decision, and that the value of ( $t = 17.211$ ) is at a level of confidence ( $\text{sig} = 0.000$ ), this confirms the parameter significance at (0.05 level).

Based on the above analysis, we do not accept the first sub nihilistic hypothesis and accept the alternative sub hypothesis that says: There is a statistically significant effect at the level ( $\alpha$

$\leq 0.05$ ) for social media on investment decision-making (sale decision - purchase decision - non-trading decision) with investors in Amman Financial Market.

Results related to the second sub-hypothesis

**H01-2: There is no statistically significant effect at the level ( $\alpha \leq 0.05$ ) of specialized economic websites on making investment decisions (sale decision - purchase decision - non-trading decision) among investors in Amman Financial Market.**

**Table (18) The results of the simple regression test for the impact of specialized websites on making investment decisions for investors in Amman Financial Market**

Dependent Variable	Model Summary		Analysis of Variance			Coefficient				
	Correlation coefficient	R <sup>2</sup>	F	d.f	Sig F*	Statement	$\beta$	Standard error	t	Sig F*
investment decision	0.779	0.607	1021.233	1	0.000	websites	0.779	0.84	14.650	0.000

\* Statistically significant at the level of significance ( $\alpha \leq 0.05$ ).

Table (18) results indicate that the value of ( $r = 0.779$ ), and this means that there is a correlation value (77.9%) which is considered high (Zikmund, 2000) between the use of specialized websites and investment decision-making by investors in Amman Financial Market.

It turns out that the value of the determination coefficient ( $r^2 = 0.607$ ), and this means that the use of specialized websites and their dependence, has explained (60.7%) of the variance in investment decision-making with investors in Amman Financial Market, and (39.3%) based on other factors. which this study did not cover.

The table of transactions also shows that the value of (f) has reached (1021.233) at a confidence level (sig = 0,000) and this confirms the significance of the slope at the level ( $\alpha \leq 0.05$ ) and at one degree of freedom.

It is also clear from the transactions table that the value of ( $\beta = 0.779$ ), that is, the change in one unit in the extent of using and relying on websites leads to a change of (77.9%) in making the investment decision, and that the value of ( $t = 14.650$ ) is at a confidence level (sig = 0.000), this confirms the coefficient of significance at (0.05 level).

Based on the above analysis, we do not accept the second nihilistic hypothesis and accept the alternative sub-hypothesis which says: There is a statistically significant effect at the level ( $\alpha$

$\leq 0.05$ ) for specialized economic websites to make investment decisions (sale decision - purchase decision - non-trading decision) investors in Amman Financial Market.

### Results related to the second major hypothesis

**The second main hypothesis: H02: There are no statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the attitudes of investors in Amman Financial Market towards the effect of new media on their investment decisions and rationalization according to their demographic characteristics (gender - age group - educational level - years of experience).**

To identify the significance of the differences in investor attitudes in Amman Financial Market towards the effect of new media on their investment decisions and rationalization, a t-test was conducted to find out the differences in the variable (gender) and the binary variance test (f-test), to know the differences in the variables (age group - educational level - years of experience), the results are as follows:

#### *1- The gender variable.*

Table (19) shows the t-test results of the differences in investor attitudes in Amman Financial Market towards the effect of new media on their investment decisions and rationalization, due to gender variable, at the level of significance ( $\alpha \leq 0.05$ ), i.e. at a ratio error that does not exceed (5%) and confidence level not less than (95%).

**Table (19) A t-test of differences in investor attitudes in Amman Financial Market towards the impact of new media on their investment decisions and rationalization attributed to the gender variable**

Value (t)	Degrees of Freedom	Difference Averages	Significance Level
0.927	149	0.138	0.355

Table (19) data indicates that there are no statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the attitudes of investors in Amman Financial Market towards the effect of new media on their investment decisions and rationalization according to the gender variable, where the level of significance reached (0.355), which is greater than the acceptable statistically level, this indicates that the attitudes of males and females have been nearly the same and have not differed about the impact of the new media on their investment decisions.

#### *2- Age group variable.*

Table (20) shows the results of the f-test for differences in investor attitudes in Amman Financial Market towards the effect of new media on their investment decisions and

rationalization, due to the age group variable, at the level of significance ( $\alpha \leq 0.05$ ), i.e. at an error rate that does not exceed (5%) and a confidence level not less than (95%).

**Table (20) F-test for the differences in investor attitudes in Amman Financial Market towards the effect of new media on their investment decisions and rationalization attributed to the variable of the age group**

Source of contrast	Sum of squares	Degrees of freedom	Average squares	(f) Value	Significance level
Between groups	3.654	2	1.218	1.744	0.074
Within groups	87.424	147	0.444		
Total	91.078	149			

The previous data of table (20) indicate that there are no statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the attitudes of investors in Amman Financial Market towards the effect of new media on their investment decisions and rationalization according to the variable of the age group, where the level of significance reached (0.74), which is higher than the acceptable statistically level, and this indicates the lack of variation in investor attitudes in Amman Financial Market towards the impact of new media in their investment decisions and rationalization according to their age groups, that is, the attitudes of investors of different age groups have been almost identical and have not varied about the impact of new media in their investment decisions .

### 3- Variable educational level

**Table (21) F-test for the differences in investor attitudes in Amman Financial Market towards the effect of new media on their investment decisions and rationalization due to the variable of the educational level**

Source of contrast	Sum of squares	Degrees of freedom	Average squares	(f) Value	Significance level
Between groups	9.70	2	4.855	82.98	0.000
Within groups	4.09	147	0.059		
Total	13.80	149			

\*Statistically significant at the level (0.05).

The data of the previous table indicate that there are statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the attitudes of investors in Amman Financial Market towards the influence of new media in their investment decisions and rationalization according to the variable of the educational level, where the level of significance (0,000), which is less than the acceptable statistically level, and this indicates the variation in investor trends in Amman Financial Market towards the impact of new media in their investment decisions and rationalization according to their educational levels, and to find out the direction of the

differences, a Schiff test was conducted for the dimensional comparisons (Scheffe), and the results were as shown in Table (22).

**Table (22) Scheffe test results of dimensional comparisons of new media effect on investment decision due to the variable of the educational level.**

Educational level	basic	Diploma and less	Bachelor	Postgraduate
		3.62	3.49	3.78
Diploma and less	3.62	-----		
Bachelor	3.49	0.12	-----	
Postgraduate	3.78	0.70	0.83*	-----

\*Statistically significant at the level (0.05).

The data of the previous table indicate that there is a statistically significant difference in the attitudes of investors in Amman Financial Market towards the effect of new media in their investment decisions and rationalization according to the variable of the educational level (Bachelor) and (Postgraduate), with a value of (0.83), in favor of (Postgraduate studies), that is, investors with higher educational qualifications (master's or doctorate) are the most affected by the new media (social media - specialized websites) in making their investment decision.

**Table (23) F-test for differences in investor attitudes in Amman Financial Market towards the influence of new media in their investment decisions and rationalization due to the variable experience in the investment field**

Source of contrast	Sum of squares	Degrees of freedom	Average squares	(f) Value	Significance level
Between groups	7.99	2	3.99	82.98	0.000
Within groups	5.80	147	0.083		
Total	13.80	149			

\*Statistically significant at the level (0.05).

The previous table data indicate that there are statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the attitudes of investors in Amman Financial Market towards the influence of new media in their investment decisions and rationalization due to the variable of experience in the investment field, where the level of significance reached (0.00), which is less than the acceptable statistically level, this indicates the variation in the attitudes of the sample members on the effect of new media on their investment decisions and their rationalization due to the variable of experience in the investment field, and to know the direction of the differences, a Schiff test was conducted for the dimensional comparisons (Table 24).

**Table (24) Scheffe test results of dimensional comparisons in the impact of new media on investment decision due to the variable experience in the investment field.**

Experience in the investment field	basic	Diploma and less	Bachelor	Postgraduate
		2.96		
Less than 5 Ys.	2.96	-----		
5-10 Ys.	3.55	0.59	-----	
More than 10 Ys.	3.71	*0.75	0.16	-----

\*Statistically significant at the level (0.05).

The previous table data indicate that there is a statistically significant difference in the attitudes of investors in Amman Financial Market towards the effect of new media on their investment decisions and rationalization according to the variable of experience in the investment field (less than 10 years) and (more than 10 years), with a value of (0.75 ), in favor to experience (more than 10 years), meaning that investors with high investment experience are the most affected group by the new media (social media - specialized websites) in making their investment decision.

### Discuss the results

The results of the first question showed that each study sample from the investors in Amman Financial Market use new media means and applications as a source to obtain the necessary information or that they wish to obtain when making their investment decision, and for this, most of these investors with a percentage of (64.7%) spend more than two hours a day using new media applications represented by (social networking sites and specialized websites) in their pursuit of investment information, as (60%) of them use social media, while (40%) of them use specialized websites.

The researcher attributes this result to the investors' need for important financial and economic information and data that help and direct them towards making investment decision on selling or buying shares or keeping these shares and not trading them in, and due to many advantages in the new media represented by rapid information ,local and global financial data transmission and the ability to participate and obtain at any time, in addition to the presence of specialized websites concerned with analyzing the movement of stocks up or down at all levels, and providing guidance and advice related to investment in financial markets. All of which explain the interest of investors in new media in making and rationalizing their investment decisions.

This result harmonize with Kadous and others study result (Kadous, et al, 2019), in which there is an indication that most investors rely on the advice directed to them through social media in making their investment decisions, and they believe that those advice directed to them predicts the future returns of securities. Consequently, it must be used to make the



decision to buy or sell or not to trade. This result was also consistent with Kumari study result (2018), which concluded that most of the sample individuals from investors refer to social media in obtaining important information to make an investment decision.

This result also consistent with Bollampelly study result (2016), which shows that many investors rely on news from non-traditional sources such as financial news sites and social media from the internet when they make their investment decisions.

This result differed from Abu Hamad and Ali study's (2015), where it showed that most of the study sample believe that the impact of internet on their investment decisions is very weak, due to the limited spread and the need for technical expertise using it, which may not be available to many investors.

The results of the second question also showed that members of the study sample use social networking sites in order to obtain data, information, economic and financial news that help them making investment decisions, and that (80.0%) of them use those sites to obtain opinions and comments about the confidence of investors in a particular institution, followed by those who use social media for obtaining intermediaries advice in directing a specific investment, at a rate of (60.0%), then by those who use social media in obtaining financial publications and data for public joint-stock companies, at a rate of (33.3%).

The researcher attributes this result to the fact that investors in the financial markets use social media to satisfy their needs of information to make investment decisions, and despite the availability of these information, they selectively rely on specific information provided by social networking sites that are appropriate to the capabilities of those sites, as well as the needs of investors, finding that they focus on a specific type of information provided by social networking sites such as opinions, comments and various tips that direct them towards a specific investment.

Regarding the use of websites, the results showed that most investors in Amman Financial Market use them to obtain technical analysis of the direction of stocks, and to identify the shares through which they can achieve their goals and profits, where they formed (80.0%) followed by those who use specialized websites to learn about global economic and financial indicators, at a rate of (76.6%), followed by those who use specialized websites to find out important future expectations of stocks and bond prices, at a rate of (63.3%), then by those who use them to read bulletins and financial data for public joint-stock companies, at a rate of (60.0%), then by investors who aim to identify economic decisions and government financial policies at a rate of (53.3%).

The researcher attributes this result to the fact that specialized websites are more accurate than social networking sites, for most of them are based on accurate and sober scientific foundations, since they are not based on circulation and exchange of opinions only, but rather

on publication of financial information, data, the provision of information, political news and economic indicators in methodological and scientific way, and therefore, investors in financial markets depend on them in technical analyzes of stocks and their movement through which future predictions of stock prices can be exchanged. They also rely on news of economic and political decisions, local and global economic conditions.

This result consistent with Kumari study results (2018), which indicate the adoption of social media to obtain information that help in making investment decisions, concerning the source and credibility of the information published through these means.

It also agreed with Assayed study result. (2016), which indicates that internet is a rich media means that has the ability to transfer a large amount of detailed information and data on the stock market, which give less ambiguity among investors related to investment decisions, thus they depend on them.

The results of the third question showed that (51.3%) of the study sample investors agreed that Facebook as one of the social networking sites is the most influential on making their investment decisions, whereas (28.0%) think that (WhatsApp) is the most influential application in their investment decisions, and (10.7%) believe that (Twitter) is the most influential in their investment decisions, while (10.0%) of them believe that electronic forums are the most influential.

This result explains that Facebook is the most widespread social media site in the world, and that it is easier to use than many social media sites, and includes many features that make it easier for investors in financial markets to use and thus benefit from in making investment decisions.

With regard to websites, 78% of investors in the Amman Financial Market see that the Amman Financial Market (ASE) website is the most influential website in their investment decisions, that (16.7%) think that Bloomberg is a site that influences their investment decision, and (4.0%) believe that Morningstar is the influence of their investment decisions, and 1.3% think that MyMoney influence their investment decisions.

This result is attributed to the fact that the investors in the Amman Financial Market, despite their need for a lot of information and data from various websites, but that their main accreditation will be on the market site itself where they invest shares, and therefore any information issued by this site will have a significant and important impact on The investment decision of the investor.

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### **Discuss the study hypotheses**

The results of the first main hypothesis test showed that there is a strong and positive correlation of (90.4) between the new media represented by its applications (social networking sites - specialized economic and electronic realities) and investment decision-making and rationalization among investors in Amman Financial Market.

The results also showed that there is a statistically significant effect at the level ( $\alpha \leq 0.05$ ) for the use of social media and specialized websites to rely on in making investment decisions (sale decision - purchase decision - non-trading decision) among investors in Amman Financial Market.

This result explains that the information that investors need in the financial market to satisfy their needs and rely on them, can be available through social networking sites and specialized websites, as social media sites can provide many advice from financial intermediaries and experts in the direction of a specific investment, in addition to opinions and comments, circulation and interaction with them about the confidence of investors in a particular institution, and also enables specialized websites to publish important information and data centered on technical analysis of the direction of stocks, economic decisions and government financial policies, in addition to future expectations of stock and bond prices. All of this contributes to facilitating the decision-making process of investment in the financial market, and making this decision more efficient and able to achieve the main goal of obtaining profits.

This agreed with Kadous (Kadous, et al, 2019), whose results showed that information related to financial data provided by social media platforms has a great importance in the process of influencing the investment decision, and the result also agreed with Tham study (Tham, 2018), which indicates that the information obtained by investors through social media is statistically significant in investment decision-making. This result also coincided with the Bollampelly study result (2016), which showed investor agree that finance news from social media make decision-making easy.

The result of the current study is different from Abu Hamad and Ali study's (2015), which showed that most investors believe that the impact of the internet on their investment decisions is very weak, due to the limited spread and the need for technical expertise to use, which may not be available to many investors.

The second hypothesis results also showed that there were no statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the trends of investors in Amman Financial Market towards the effect of new media on their investment decisions and their rationalization according to the gender and age group, and this indicates that the trends of males and females have been almost identical, they did not disagree about the impact of the new media on their



investment decisions, and the trends of the investors were similar across their different age groups. This result explains that investors of both sexes and different age groups have the ability to access social networking sites and specialized websites alike, they are informative applications that everyone can easily access, and there is no relationship with the investor's gender or age to the extent of access or use or rely on those sites, which makes their impact on them equal.

The results also showed that there are statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the trends of investors in Amman Financial Market towards the influence of new media in their investment decisions and rationalization due to the variable of the educational level and in favor of the level (postgraduate), and the variable of years of experience in investment, and in favor of experience (More than 10 years), meaning that investors with higher educational qualifications (master or doctorate), and those with high investment experience are the most affected by the new media (social media - specialized websites) in making their investment decision.

This result can be explained by the fact that investors with higher educational categories and higher years of experience in the investment field have access to more useful and important sites than those with low experience and education level.



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