KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 02 July 2023
Accepted 20 August 2023
Published online 01 September 2023

International Journal of Innovation Management and Organizational Behavior

Volume 3, Issue 3, pp 24-32

IJIMOB
International Journal of Innovation Management and Organizational Behavior

E-ISSN: 3041-8992

The effect of product market advertising on the risk of falling stock prices in companies listed on the Tehran Stock Exchange

Mostafa. Khosroabadi[1]*, Azadeh. Ashrafi[2], Faranak. Khodayari[2]

[1] MSc Student, Department of Management and Economics, North Tehran Branch, Islamic Azad University, Tehran, Iran
[2] Assistant Professor, Department of Management and Economics, North Tehran Branch, Islamic Azad University, Tehran, Iran

*** Corresponding author email address**: hhakimpur@iaubir.ac.ir

A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
Khosroabadi, M., Ashrafi, A., & Khodayari, F. (2023). The effect of product market advertising on the risk of falling stock prices in companies listed on the Tehran Stock Exchange. *International Journal of Innovation Management and Organizational Behavior, 3*(3), 24-32.

A B S T R A C T

Objective: This study aimed to investigate the effect of product market advertising on the risk of falling stock prices in companies listed on the Tehran Stock Exchange.
Method: This research was of a descriptive type, and in terms of the purpose of the applied research, and in terms method of the descriptive-post-event research method. The statistical population consisted of managers and experts of companies admitted to the Tehran Stock Exchange, 73 companies were selected as the research sample during the 5 years of 2018-2022 by systematic elimination method. In order to collect the required information, the research was based on the library data collection method. The research data has been collected from the published reports of the documents and documents by the companies admitted to the stock exchange by Rahavard Novin software. In order to analyze the data, descriptive and inferential statistics methods were used with EXCEL, SPSS, and EVIEWS software.
Results: The results showed that product market advertising affects the risk of falling stock prices in companies listed on the Tehran Stock Exchange. Also, the results showed that advertising costs, advertising intensity and advertising compression affect the risk of falling stock prices in companies listed on the Tehran Stock Exchange.
Conclusion: The results indicate that the research model is well-fitted and has a good meaning. Investors and stock market players should consider product market advertising as a factor influencing the risk of falling stock prices in order to make correct decisions.

Keywords: *Product market, advertising, crash risk, stock price.*

1 Introduction

The main arguments of economics are based on the premise that competition in the product market is an excellent mechanism for the optimal allocation of resources and has disciplinary effects on the behavior of managers and their incompetence. Today, competitiveness is considered an important global issue and means achieving favorable economic growth and sustainable development. Competition is achieving a stable and suitable position in international markets. In this period when globalization is increasingly increasing, competition is an essential issue among policymakers, industries and companies worldwide (Fazlolahi Dehkordi & Ahmadi, 2018).

Today, one of the most important concerns of investors in the stock market is the sharp fluctuations in stock prices, sudden drops in asset prices and asymmetric distribution of returns. In most cases, the increase in the stock price is gradual and their occurrence takes a long time. In contrast, the fall in the stock price often occurs in a short time and quickly, so most of the major and severe changes in the stock price are mainly related to the decrease and fall in the stock price rather than their increase. Falling prices and investors' concerns about rapid and sudden drops in stock prices have drawn the attention of researchers to the risk of falling prices. There is always the belief that by identifying the influencing factors and trying to reduce the risk of falling stock prices, balance and equilibrium in the capital markets will be improved and strengthen investment (Pourheidari, Ziaghasemi, & Abdzadeh kanafi, 2018).

Moreover, since product marketing advertising is a common practice in the corporate world, it should positively affect companies and consumers. It is well documented that advertising attracts consumer attention, reduces information asymmetry about the advertised product, enhances the brand image and reputation of the advertising company, and leads to commercial success. Therefore, advertising in the product market can be useful for the advertising company in terms of increasing cash flow and profitability, increasing brand name and reputation, and other things. Also, advertising should be reduced instead of increasing the risk of the advertising company's stock price falling. On the other hand, if advertising leads to overvaluation of the company's stock and earning power, advertising will likely increase the advertising company's brand name and profits, but at the same time, increase the risk of the company's stock price falling. Therefore, the adverse effect of publicity on stock price downside risk is likely to dominate in the capital market, especially in China, where the information environment is not so good (Zhang, Shen, & Sun, 2022).

Advertising can attract the attention of investors in the capital market and indicate the quality of a company when the company makes initial public offerings. Meanwhile, advertising in the product market also has negative effects, especially in the capital market. First, intensive product market promotion can attract investors' limited attention, diverting it from bad news and creating information asymmetry. Second, managers may use advertising to cover up bad news about the company. Third, advertising in the product market can cause a bias in the perception of investors, which leads to an increase in the stock value in the short term and a reversal of the price in the following periods (Madsen & Niessner, 2019).

However, product market advertising is observable in the financial market, and managers can use advertising as a signal to investors to reduce information asymmetry during IPOs and, as a result, underprice IPOs. Advertising can also increase information asymmetry because advertising only presents positive information and makes negative information less visible. Advertising attracts the attention of investors and makes them more familiar with the advertising company. As a result, it increases the liquidity of the company's shares and reduces the company's capital cost (Wen et al., 2019).

Shourangiz et al. (2021) showed that practical ethical advertising should lead to customer loyalty, increasing credibility, customer trust, purchasing decisions and increasing sales (Shourangiz, Biabani, & Ranjbar, 2021). Also, Nikkar (2019) showed that the criteria considered in this research, including the Herfindahl and Hirschman index, the Lerner index, the industry entry barrier index, and the Kitobin index, significantly negatively affect the company's investment efficiency. Competition in the product market causes a positive and significant effect on the efficiency of investment in companies admitted to the Tehran Stock Exchange due to its effect on creating transparency in the company's information environment and decision-making (Nikkar, 2019). Likewise, Akbari et al. (2017) showed that brand value mediates the relationship between advertising costs and financial performance (return on assets and return on equity) (Akbari, Farkhonde, & Ghasemi Shams, 2017). Pourheidari et al. (2018) showed that in four of the six proposed hypotheses, there is a significant positive relationship between competition in the product market and the risk of falling stock prices of companies. It also showed that competitive threats reduce agency costs, and lower agency costs reduce the risk of falling stock prices. For example, in highly competitive conditions, company managers make more efforts to manage costs and make effective and efficient decisions, and by improving the efficiency and performance of the business unit, the possibility of a significant decrease in the stock price decreases (Pourheidari, Ziaghasemi, & Abdzadeh kanafi, 2018). Hejazi et al. (2011) showed that increasing advertising expenses increases the company's market value. Therefore, it can be suggested that advertising expenses be considered as one of the types of intangible assets (company resources) and reported in financial statements (Hejazi, Heydarpoor, & Hasan Zadeh, 2011).

IJIMOB
E-ISSN: 3041-8992

Zhang et al. (2022) showed that a one standard deviation increase in product market advertising can lead to a 7.43–8.40% increase in future crash risk. It also showed that the positive relationship between product market advertising and bankruptcy risk is more obvious for firms with a weaker information environment. They also showed that intensive product market promotions affect future downside risk by diverting investors' attention from bad news and reinforcing bullish sentiments or bubbles (Zhang, Shen, & Sun, 2022). Chen et al. (2020) showed the effect of advertising on synchronization for firms with a higher degree of information asymmetry and firms in the consumer product industry. Further experiments show that product market advertising increases the ability of current-period returns to reflect future returns. Therefore, product market advertising plays an informative role and improves information efficiency in the capital market (Chen, Zhong, & Jiang, 2020). Chemmanur and Yan (2019) showed that advertising increases the company's visibility among investors in the advertising year. Also, if a firm attracts more investor attention in the promotional year, or if investors face a higher cost of short-selling the firm's stock, the negative effect of publicity on the long-term reversal of stock returns is greater. It is also indicated for smaller companies, value companies, and companies with weaker prior stocks or operating performance. Finally, the effect of advertising on future stock returns is stronger when advertising increases than when advertising decreases (Chemmanur & Yan, 2019). Wen et al. (2019) showed that advertising increases stock prices, followed by a reversal. Investor attention can also reduce downside risk, suggesting that advertising is more likely to create bubbles by attracting investor attention, increasing the company's stock price rather than reducing downside risk (Wen et al., 2019). Also, Sridhar et al. (2014) showed that the cost of advertising and inventory led to increased sales, but this was not confirmed about the cost of research and development. At the same time, only the cost of advertising and research and development have led to an increase in the company's value (Wen et al., 2019).

According to Hong and Stein (2003), it is easier for price bubbles to occur in a market where traders have more noise and short-term selling restrictions. Hence, advertising is likely to foster optimistic sentiments among Chinese investors. These sentiments can overcome negative information about the advertising company and lead to a more prominent relationship between intensive advertising and crash risk in China (Hong & Stein, 2003). Focke et al. (2000) also found that advertising attracts investors' attention, but they also found that it had little effect on the turnover and liquidity of the company's stock (Focke, Ruenzi, & Ungeheuer, 2020). This study argues that limited investor attention and familiarity caused by advertising can cause investors to ignore negative information about the company and, as a result, can increase the risk of the company's stock price falling. Therefore, this research examines the gap regarding whether intensive advertising affects the risk of falling stock prices. Therefore, according to the mentioned cases, the current research's main problem is to answer whether advertising in the product market leads to the risk of falling stock prices in companies listed on the Tehran Stock Exchange.

2 Methods and Materials

2.1 Study design and Participant

This research is descriptive and in terms of applied research purpose, and since this research investigated the current state of variables by using information collection through past information, it is placed in the ranks of descriptive-post-event studies. This research aims to provide a suitable method to determine the impact of the risk of falling stock prices on the product market competition of companies listed on the Tehran Stock Exchange. For this purpose, first, the risk of falling stock prices of the companies in the sample was calculated from 2018 to 2022. Then, in the next step, research hypotheses were evaluated using statistical tests. This research's statistical population included 142 companies admitted to the Tehran Stock Exchange. 73 companies were randomly selected as research samples and were investigated during the 5 years of 2018-2022. The selection of the sample from among the companies accepted in the Tehran Stock Exchange has been done considering the following criteria (by systematic elimination method): the end of the financial year of the companies must be the end of March; participation in the study period does not change the financial year; do not have operational losses during these years; The company's financial information should be available in the studied period.

2.2 Measures

Then, to collect the data related to the research hypotheses, the companies admitted to the stock exchange were referred. The research data has been collected from the published reports of the documents and documents by the

IJIMOB
E-ISSN: 3041-8992

companies admitted to the stock exchange. Advertising costs were considered as all the company's costs for making and delivering the advertisement. For this purpose, all companies listed on the Tehran Stock Exchange in 2018-2022 were searched from all the annual reports of Iran available in CSMAR. Specifically, the keywords and their associated costs were searched, focusing on the Notes to Financial Statements section: advertising/advertising, advertising/promotion, media/platform, marketing/market, and advertising/science. These identifiable advertising costs were collected for each company and the primary measure of the companies' advertising costs was obtained. This resulted in 16,440 observations per company year (2,600 observations for 2018-2019 and 13,840 observations for 2020-2022) with positive advertising costs. To re-examine the main variable of interest, the data item "advertising costs" was obtained for all companies listed on the Tehran Stock Exchange in 2020 to 2022, and 13,712 annual observations of companies with positive advertising costs were found. The correlation between data and estimates in 2020-2022 was about 0.97, and two sample company year observations were merged and reached a sample of 16880 company year observations in 2020-2022. In addition, companies with assets less than total liabilities, with PT/ST status, with weekly returns too low (less than 40 in one year) to estimate collapse risk, and with missing information on control were excluded. This method of filtering the final sample of 12489 annual company observations was obtained.

Several control variables in the main regression analysis for the risk of falling stock prices include Delayed Fall Risk (LNTA); book-to-market ratio (BM); leverage ratio (LEV); Return on Assessment (ROA); Sales growth rate (SG); annual return on equity (RET); difference in average monthly turnover rate (DTURN); Standard deviation (SIGMA). Dummies were also used to control for potential year and industry-fixed effects.

2.3 Data Analysis

After collecting the data through existing software, the functions of this software were used to calculate the research variables by entering the data into EXCEL. Then, the results of measuring the variables were entered into SPSS and EVIEWS software for statistical calculations, and the relationship between the variables was investigated using these software

3 Findings and Results

Descriptive statistical quantities include mean, median, maximum (maximum), minimum (minimum), standard deviation, skewness, and kurtosis, which data analysis is done with the help of these quantities.

Table 1

Descriptive statistics findings

Variable	Obs.	Mean	SD	Min	Max
ADi,t	365	0.0137	0.036	0	0.358
AD INDUSTRYi,t	365	6.333	0.637	4.833	8.587
SALESi,t	365	0.577	0.240	0.065	1.804
SALES INDUSTRYi,t	365	0.229	0.420	0	1
NCSKEW	365	6.325	0.650	4.850	8.185
DUVOL	365	0.577	0.240	0.065	1.804
FRD	365	0.580	0.230	0.060	1.850
LNTA	365	13.62325	1.313871	9.1488	16.82831
BM	365	0.23547	0.17858	0	0.83254
LEV	365	0.6234587	0.154789	0.3254	.0.9854
ROA	365	0.10258	0.14785	-0.7895	0.6214
SG	365	0.10258	0.14785	-0.7895	0.6214
RET	365	0.336207	3.324541	0	1
DTURN	365	0.22147	0.12547	0	0.67458

Table 1 shows that the variable average of the company's advertising expenses (ADi,t) in the investigated companies in all the years of the research is about 0.0137. Its maximum value is 0.358. The results also show that the variable average of total advertising expenses (AD INDUSTRYi,t) is 6.333, the highest amount was 8.587. The proxy variable of the negative skewness coefficient of the risk of falling stock

IJIMOB
E-ISSN: 3041-8992

prices (NCSKEW) was 6.325 on average. Other information about the variables is shown in the above picture.

Table 2

Main hypothesis results

Variable	Coefficient	SE	t	p
ADi,t	0.889	0.04	5.461	0.000
AD INDUSTRYi,t	0.560	0.05	7.304	0.001
SALESi,t	0.311	0.08	3.415	0.000
SALES INDUSTRYi,t	0.350	0.002	7.273	0.000
NCSKEW	0.469	0.120	3.577	0.000
DUVOL	0.409	0.120	3.045	0.000
FRD	0.769	0.005	2.094	0.001
LNTA	1.3007	0.3636	12.260	0.000
BM	0.9911	0.3254	5.504	0.000
LEV	0.7065	0.3374	6.525	0.001
ROA	1.1261	0.0918	3.915	0.000
SG	-0.7547	0.2282	2.167	0.000
RET	0.889	0.04	5.461	0.000
DTURN	0.560	0.05	7.304	0.001
Time effects	Controlled			
Industry effects	Controlled			
R^2	31.158			
R^2_{adj}	0.3158			
F	2.244			
p-value	0.009			
Durbin-Watson	1.857			

The main hypothesis: product market advertising has an effect on the risk of falling stock prices in companies listed on the Tehran Stock Exchange.

The results of Table 2 show that the coefficient and significance level (error) of product market advertising components including advertising costs, advertising intensity, advertising compression are equal to 0.889, 0.560 and 0.311, respectively; The error of these variables is lower than the maximum acceptable error (5%). Therefore, it can be stated that at the 95% confidence level, product market advertising is effective on the risk of falling stock prices in companies listed on the Tehran Stock Exchange, and the main hypothesis of the research is confirmed. According to Table 2 and the value and level of significance of the F statistic of the model is 2.244 and 0.009, respectively, and it indicates that the research model is well fitted and has a good significance. The adjusted coefficient of determination is equal to 0.3158 and it indicates that 31.58% of the changes in the dependent variable are explained by the independent variables of the research.

According to Table 2: all the Cronbach's alpha coefficients of the variables are above 0.7, and the model is reliable from the point of view of this coefficient. The combined reliability rate for all structures is more than 0.7 and indicates the appropriate internal stability of the research variables in the model. The reliability of RHO_A for all research variables has met the cut point of 0.7 according to the research model, and the reliability of the research model is also confirmed based on this index. All the variables of this research have an average commonality index above 0.5. Therefore, it can be claimed that the external model has reliability according to the shared reliability and then according to other reliability coefficients including Cronbach's alpha, combined reliability and RHO_A. The summary of four reliability tests shows that the reliability of causal research results is confirmed based on its model.

Table 3

First sub-hypothesis results

Variable	Coefficient	SE	t	p
ADi,t	0.889	0.882	0.006	5.817

IJIMOB
E-ISSN: 3041-8992

AD INDUSTRYi,t	0.560	0.276	0.005	2.000
SALESi,t	0.311	0.969	0.008	2.1960
SALES INDUSTRYi,t	0.350	0.7899	0.004	4.082
NCSKEW	0.469	0.0846	0.008	2.073
DUVOL	0.409	1.0465	0.0141	6.959
FRD	0.769	0.0569	0.0069	0.349
LNTA	1.3007	0.0009	0.1549	5.383
BM	0.9911	0.0261	0.0207	3.817
LEV	0.7065	0.7899	0.5048	2.000
ROA	1.1261	0.882	0.006	5.817
SG	-0.7547	0.276	0.005	2.000
RET	0.889	0.969	0.008	2.1960
DTURN	0.560	0.7899	0.004	4.082
Time effects	Controlled			
Industry effects	Controlled			
R^2	0.1098			
R^2_{adj}	0.1028			
F	2.254			
p-value	0.0097			
Durbin-Watson	1.978			

The first sub-hypothesis: advertising costs have an effect on the risk of falling stock prices in companies listed on the Tehran Stock Exchange.

The results of Table 3 show that the coefficient and significance level (error) of the variable of advertised costs is equal to 0.882; The error of this variable (0.000) is lower than the maximum acceptable error (5%). Therefore, it can be stated that at the confidence level of 95%, advertising costs are effective on the risk of falling stock prices in companies listed on the Tehran Stock Exchange, and the first sub-hypothesis of the research is confirmed. According to Table 3, the value and significance level of the F statistic of the model is 2.254 and 0.0097, respectively, and it indicates that the research model is well fitted and has a good significance. The value of the adjusted coefficient of determination is equal to 0.1028 and it indicates that 10.28% of the changes of the dependent variable are explained by the independent variables of the research.

Table 4

Second sub-hypothesis results

Variable	Coefficient	SE	t	p
ADi,t	0.412	0.005	7.782	0.000
AD INDUSTRYi,t	0.320	0.008	5.583	0.001
SALESi,t	0.095	0.002	3.837	0.000
SALES INDUSTRYi,t	0.461	0.13	11.336	0.001
NCSKEW	0.1388	0.0248	3.316	0.000
DUVOL	0.2663	0.1449	2.510	0.001
FRD	0.5671	0.0500	4.462	0.001
LNTA	0.3038	0.0916	7.782	0.000
BM	1.2054	0.4802	5.818	0.000
LEV	3.2054	0.7025	3.912	0.000
ROA	0.412	0.005	7.782	0.000
SG	0.320	0.008	5.583	0.001
RET	0.095	0.002	3.837	0.000
DTURN	0.461	0.13	11.336	0.001
Time effects	Controlled			
Industry effects	Controlled			
R^2	0.1121			
R^2_{adj}	0.1059			
F	2.348			
p-value	0.007			
Durbin-Watson	1.954			

IJIMOB
E-ISSN: 3041-8992

The second sub-hypothesis: the intensity of advertising has an effect on the risk of falling stock prices in companies listed on the Tehran Stock Exchange.

The results of Table 4 show that the coefficient and significance level (error) of the advertising intensity variable is equal to 0.412; The error of this variable (0.000) is lower than the maximum acceptable error (5%). Therefore, it can be stated that at the 95% confidence level, the intensity of advertising is effective on the risk of falling stock prices in companies listed on the Tehran Stock Exchange, and the second sub-hypothesis of the research is confirmed. According to Table 4, the value and significance level of the F statistic of the model are 2.348 and 0.007, respectively, and it indicates that the research model is well fitted and has a good significance. The coefficient of determination is equal to 0.1059 and it indicates that 10.59% of the changes in the dependent variable are explained by the independent variables of the research.

Table 5

Third sub-hypothesis results

Variable	Coefficient	SE	t	p
ADi,t	0.896	0.005	7.304	0.001
AD INDUSTRYi,t	0.716	0.004	3.152	0.001
SALESi,t	0.479	0.010	7.273	0.002
SALES INDUSTRYi,t	0.029	0.004	3.577	0.002
NCSKEW	0.317	0.009	3.045	0.000
DUVOL	0.307	0.3254	2.094	0.002
FRD	0.9911	0.3374	12.260	0.002
LNTA	0.7065	0.0918	5.307	0.000
BM	1.1261	0.2282	7.304	0.002
LEV	0.754	0.3254	2.167	0.002
ROA	0.896	0.005	7.304	0.001
SG	0.716	0.004	3.152	0.001
RET	0.479	0.010	7.273	0.002
DTURN	0.029	0.004	3.577	0.002
Time effects	Controlled			
Industry effects	Controlled			
R^2	0.1125			
R^2_{adj}	0.1096			
F	2.350			
p-value	0.005			
Durbin-Watson	1.939			

The third sub-hypothesis: the density of advertisements has an effect on the risk of falling stock prices in companies listed on the Tehran Stock Exchange.

The results of Table 5 show that the coefficient and the level of significance (error) of the advertising compression variable is equal to 0.896; The error of this variable (0.001) is lower than the maximum acceptable error (5%). Therefore, it can be stated that at the confidence level of 95%, the compression of advertisements is effective on the risk of falling stock prices in companies listed on the Tehran Stock Exchange, and the third sub-hypothesis of the research is confirmed. According to Table 5, the value and significance level of the F statistic of the model are 2.350 and 0.005, respectively, and it indicates that the research model is well fitted and has a good significance. The coefficient of determination is equal to 0.1096 and it indicates that 10.96% of the changes in the dependent variable are explained by the independent variables of the research.

4 Discussion and Conclusion

The findings of the main hypothesis showed that product market advertising affects the risk of falling stock prices in companies listed on the Tehran Stock Exchange. The obtained result is consistent with the results of some previous studies (Chemmanur & Yan, 2019; Nikkar, 2019; Pourheidari, Ziaghasemi, & Abdzadeh kanafi, 2018; Zhang, Shen, & Sun, 2022). In explaining the above results, it can be said that product market advertising that targets consumers can remind current and potential investors about the advertising company and make them pay more attention

IJIMOB
E-ISSN: 3041-8992

to the company's stock. In addition, since advertising only provides positive information about the advertising company, it is likely to increase the information asymmetry between stock market investors and the advertising company, thereby strengthening optimistic feelings about the company among investors, especially retail investors. It can also ignore bad news about the advertising company and overvalue its stock. This is effectively another form of hoarding bad news that can increase the risk of the advertising company going down.

The findings of the first sub-hypothesis showed that advertising costs have an effect on the risk of falling stock prices in companies listed on the Tehran Stock Exchange. The obtained result is consistent with the results of some previous studies (Akbari, Farkhonde, & Ghasemi Shams, 2017; Hejazi, Heydarpoor, & Hasan Zadeh, 2011; Sridhar, Narayanan, & Srinivasan, 2014). In explaining the above results, it can be said that managers may use advertisements to manipulate information related to their company and for their own benefit. In this way, companies can establish a good relationship with the commercial media by overpaying the media through advertising. Companies often increase their advertising spending before selling insider shares; Therefore, advertising is likely to mask bad news about the advertising company, leading to the risk of a further fall in the company's stock price. Advertising is a complex task involving many people, different social media and channels to reach potential consumers.

The second sub-hypothesis findings showed that the advertising intensity affects the risk of falling stock prices in companies listed on the Tehran Stock Exchange. The obtained result is consistent with the results of Chen et al. (2020) (Chen, Zhong, & Jiang, 2020). In explaining the above results, it can be said that the lack of transparency of information makes it more difficult for shareholders to understand the real performance of the advertising company, thus creating opportunities for the managers of these companies to hide bad news about the company from outsiders. On the other hand, the lack of transparency of information is necessary for the growth of investor sentiments and overvaluation. In both aspects, the side effect of advertising on downside risk should be more obvious for more opaque companies; advertising can draw attention to the downside risk of stock prices through hoarding bad news, creating positive sentiments and overvaluation (bubble). This is not too surprising because product market advertising attracts the attention of consumers in the product market and attracts the attention of investors in the stock market. The advertising intensity increases the risk of the advertising company falling.

The findings of the third sub-hypothesis showed that the compression of advertisements affects the risk of falling stock prices in companies listed on the Tehran Stock Exchange. The obtained result is consistent with the results of some previous studies (Shourangiz, Biabani, & Ranjbar, 2021; Wen et al., 2019). In explaining the above results, it can be said that intensive advertising has a side effect in increasing the stock price fall risk for advertising companies, even after controlling for a number of company characteristics and addressing potential endogeneity concerns. Given that intensive advertising can attract investors' attention, strengthen their positive feelings for the company, and lead them to overvalue the advertising company's stock. These can lead to hoarding bad news, and intensive product market hype can increase future downside risk through the mediating effects of investor attention, investor sentiment, and stock overvaluation. Thus, intensive product market hype affects future downside risk by distracting investors from bad news and reinforcing bullish sentiment or bubbles.

5 Suggestions

According to the results of the above research, the following suggestions are presented:

1. According to the main hypothesis, it is suggested that investors and stock market actors should consider product market advertising as a factor influencing the risk of stock price fall to make correct decisions.

2. According to the first sub-hypothesis, it is suggested that the managers and experts of the companies admitted to the stock exchange should pay more attention to the accuracy of the information of the companies with a strong competitive situation because along with competition, there is a higher possibility of keeping bad news by managers and as a result, increasing the risk of falling stock prices.

3. According to the second sub-hypothesis, it is suggested that the managers and experts of the companies admitted to the stock exchange should provide a situation by pushing the published information from the intensity of advertising towards the product market in order to reduce the risk of falling stock prices.

4. According to the third sub-hypothesis, it is suggested that the managers and experts of the companies admitted to the stock exchange should increase the overvaluation of the

IJIMOB
E-ISSN: 3041-8992

shares through intensive advertising, according to the investor's feelings.

Acknowledgments

The cooperation of all participants in the research is thanked and appreciated.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethics principles

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

References

Akbari, M., Farkhonde, M., & Ghasemi Shams, M. (2017). Investigating the Effect of Advertisement Cost on the Financial Performance of the Firms Listed in Tehran Stock Exchange with the Mediating Role of Brand Equity. *Journal of Asset Management and Financing*, *5*(3), 151-162. https://doi.org/10.22108/amf.2017.21175

Chemmanur, T. J., & Yan, A. (2019). Advertising, attention, and stock returns. *Quarterly Journal of Finance*, *9*(03), 1950009. https://doi.org/10.1142/S2010139219500095

Chen, Y., Zhong, Q., & Jiang, F. (2020). The capital market spillover effect of product market advertising: Evidence from stock price synchronicity. *Frontiers of Business Research in China*, *14*, 1-21. https://doi.org/10.1186/s11782-020-00078-2

Fazlolahi Dehkordi, Z., & Ahmadi, F. (2018). The Effect of Stock Price Crash Risk on Product Market Competition. *Journal of Accounting and Social Interests*, *8*(3), 71-85. https://doi.org/10.22051/ijar.2018.19758.1388

Focke, F., Ruenzi, S., & Ungeheuer, M. (2020). Advertising, attention, and financial markets. *The Review of Financial Studies*, *33*(10), 4676-4720. https://doi.org/10.1093/rfs/hhz142

Hejazi, R., Heydarpoor, F., & Hasan Zadeh, M. (2011). Advertising Expenditure & Market Value. *Journal of Business Management*, *9*(3), 25. https://www.magiran.com/paper/888016

Hong, H., & Stein, J. C. (2003). Differences of opinion, short-sales constraints, and market crashes. *The Review of Financial Studies*, *16*(2), 487-525. https://doi.org/10.1093/rfs/hhg006

Madsen, J., & Niessner, M. (2019). Is investor attention for sale? The role of advertising in financial markets. *Journal of Accounting Research*, *57*(3), 763-795. https://doi.org/10.1111/1475-679X.12257

Nikkar, J. (2019). The Impact of Product Market Competition on Investment Efficiency in Firms Listed on Tehran Stock Exchange. *Accounting and Auditing Studies*, *8*(29), 71-88. https://www.iaaaas.com/article_98730_275935859f28b36f4064d04032476fc7.pdf

Pourheidari, O., Ziaghasemi, M., & Abdzadeh kanafi, M. (2018). Competition in Product Market and Stock Price Crash Risk. *Empirical Research in Accounting*, *8*(4), 299-320. https://doi.org/10.22051/jera.2018.15743.1689

Shourangiz, A., Biabani, H., & Ranjbar, M. (2021). Presenting a Practical Model of Ethical Advertising of Consumer Products [Research]. *Ethics in Science and Technology*, *16*(0), 123-129. http://ethicsjournal.ir/article-1-2260-en.html

Sridhar, S., Narayanan, S., & Srinivasan, R. (2014). Dynamic relationships among R&D, advertising, inventory and firm performance. *Journal of the Academy of Marketing Science*, *42*, 277-290. https://doi.org/10.1007/s11747-013-0359-0

Wen, F., Xu, L., Ouyang, G., & Kou, G. (2019). Retail investor attention and stock price crash risk: evidence from China. *International Review of Financial Analysis*, *65*, 101376. https://doi.org/10.1016/j.irfa.2019.101376

Zhang, T., Shen, Z., & Sun, Q. (2022). Product market advertising and stock price crash risk. *Pacific-Basin Finance Journal*, *71*, 101684. https://doi.org/10.1016/j.pacfin.2021.101684

E-ISSN: 3041-8992