The impact of market share of an auditing firm on equity cost evidenced from Iran

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Abstract: Regarding the fact that equity is based on the return rate expected by the investors and is related with the amount of risk accepted by them and also the share of the market of an auditing firm is considered as an index to increase the quality of auditing, the present research is going to study the effect of auditing firm's share of market on equity cost in firms accepted in Tehran Stock Exchange. To calculate equity cost we have used capm model and to determine the share of auditing market the market share of auditing firm and the dominant share of auditing firm market has been used. In the present research 107 firms accepted in Tehran Stock Exchange during the time period between 2007 and 2011 were investigated. To test the hypotheses we have used a linear regression model. The research findings showed that generally the market share and the dominant share of an auditing firm has a negative and meaningful effect on equity cost. Also equity cost is different (less) in firms when their auditing firm has a dominant share in the market compared to companies whose auditing firm does not have a dominant share in market.

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1. Introduction

The most important step in every economic effort is to make appropriate decisions regarding the reliable and fair financial information and therefore auditing is a part of financial information reporting process. By assessing this process we can authorize ourselves to make decisions confidentially (Hassas-e-Yeghaneh and et al, 2007). Auditing performance is a function of several factors such as auditor's abilities (including knowledge, experience, adjustment power, and technical efficiency) and professional administration (including independence, objectivity, professional observing, profit controversy and judging) (Aghaee, 2002).

On the whole, the goal of auditors is to preserve the benefits of stockholders against deviations and errors regarding the importance of financial statements (Namazi & et al, 2010). Therefore the only guarantee to continue presenting these services is making sure about the economic advantages for professional services' presenters that are auditors.

Thus, regarding the importance of market share of an auditing firm which finally results in increasing the efficiency and specialization in auditing firm's industry and also due to the equity cost based on the return rate expected by the investors and its relatedness with the amount of the risk acceptable for them, the present research is going to study the effect of market share of auditing entities on equity costs.

2. Research literature review

Balsem & et al (2003) and Krishnan (2003) concluded in their researches that specialized auditors in the industry receive a higher level of salaries because they have a high job quality. Also these auditors can reduce the level of accruals in profit which finally result in more liquidation of the stocks and the reduction of return rate expected by the investors. Elmoterry & et al (2009) found out in a research paper about the relationship between auditors' incumbency, specialization in auditing industry and information asymmetry that auditing is a method to reduce information asymmetry and agency costs. High quality auditing will result in reducing auditing error and the reduction of information asymmetry. Their researches showed that auditing quality and specialization in auditing industry have a positive relationship. Guy & et al (2010) studied the relationship between auditing quality and equity cost. They found out after controlling firm size that there is a reverse relationship between auditing quality indexes (size, incumbency period, and specialization in auditing industry) and equity cost. Chan & et al (2010) found out in a research about the study of the effect of specialization in auditing industry on debt cost that one of the other variables which is affected negatively by specialization in auditing industry is the debt cost. Nazemi-e-Ardekani (2009) studied the relationship between specialization in auditing industry and different alternatives of earnings management and concluded that firms in which the

auditor is specialized in the industry have a lower amount of accruals' management.

3. Theoretical Framework and Research Hypotheses

Regarding Wallace's idea (1980) auditors have three fundamental roles of: 1- supervising for the better performance of the management, 2- creating a better information atmosphere, and 3- preparing a supportive resource to assure against the failures of an economic entity. Thus, auditors assure that the information in financial reports is fair and careful. Also auditing plays an important role in reducing the asymmetrical information among management, stockholders, owners and …(Hassas-e-Yeghaneh & Pakizeh, 2007).

Accordingly to reduce the level of information asymmetry, an auditor should have a considerable amount of specialization in market share in an industry (Guy & et al, 2101) to be able to achieve this goal by getting specialization in the employer's industry. Katod (2008) describes the specialization in auditing industry as: "specialization in auditing industry entails creating constructive ideas in order to help (creating value added) the employers also preparing the attitudes or novel strategies for some issues encountered by the employers in the industries related".

Different indexes have been utilized in auditing industry specialization as follows:

Market share approach:

The scholar perceivers the industry as an entity which has differentiated itself from other rivals regarding market share in a certain industry. This approach presupposes that by observing the relative share of the market in an auditing firm which serves a certain industry we can find out the amount of specialization knowledge of an auditing firm's industry. An entity which has a greater market share will have higher specialized knowledge (Nazemi-e-Ardekani, 2009).

Portfolio share approach:

Portfolio share approach considers a relative distribution of auditing services in different industries for every auditing firm. An auditing firm with the highest portfolio in a certain industry represents industries in which an auditing firm has created the basic knowledge regarding those industries and the bigger share of portfolio shows that a meaningful investment has been carried out by auditing entities in developing auditing technologies related to the industry (Balsem & et al, 2003).

Therefore, the only way to guarantee that specialized auditors in an industry can continue posing these services to present these crediting services is making sure of the economic benefits for the professional service providers that are auditors (Guy & et al, 2010). Guy and et al (2010) believe that equity cost is one of the variables though which the market shares of an auditing firm has had an important role in its reduction. On the other hand, equity cost is one of the fundamental concepts in financial literature playing a basic role in financing and investment. Firm management should deem equity cost important due to the identification of appropriate financial resources (Nikomaram & Amini, 2011). Balsem & et al (2003) and Krishnan (2003) found out in their researches that auditing fee has a relationship with specialization in auditing industry and specialized auditors receive a higher amount of wages because they have a high job quality. Also these auditors can reduce accruals because this will result in more liquidation and return rate reduction expected by investors.

Market share of an auditor leads to qualitative auditing. Thus, it is auditors who can prove by expanding the quality of financial reporting that these information units have a better information atmosphere and reduce information risk by doing so and finally reduce equity costs by increasing credit rank and transparency of the economic entity (Francis & Wilson, 1988; Francis & et al, 2004). Shee & Shiyao (2012) also stated that market to book value, firm size, and financial leverage are among the effective variables over return rate expected by stockholders in an economic unit.

Therefore in the present research and based on literature review and the theoretical foundations posed about the role of market share of an auditing firm in reducing equity costs and also to respond the main research question and to achieve the research goals, the following hypotheses were designed:

1- Market share of auditing firm affect equity costs.

2- Dominant market share of auditing firm affect equity costs.

4. Research variables and their operational descriptions

Regarding the effect of market share of auditing entities on equity costs investigations in the present research, equity cost is considered to be the dependent variable and capm (Capital Asset Pricing Model) created by William Sharp (1964) was used to calculate it. Also market share of auditing entities has been considered as an independent variable and the two indexes of market share of an auditing firm and dominant market share of an entity have been used to calculate it. Also based on the researches carried out domestically and internationally, the variables such

as market to book value, firm size, and financial leverage have been utilized as controlling variables.

4-1. Equity Cost

In the present research we have used the model (capm) created by William Sharp (1964) to calculate equity cost. John Chi (2011) and Taheri Moghder & et al (2010) have also used it in the general format below:

Equity cost (R) = $R_f + \beta (R_m - R_f)$

Where:

R_f = interest rate without risk

β = systematic risk criterion of investment

R_m = mean return rate of market investment

$R_m - R_f$ = market risk premium

4-2. Market share of an auditing firm

In the present research we have used the two approaches of market share and portfolio share of an auditing firm to calculate an auditing firm's share in the market. In this research market share approach is emphasized because the collection of information needed by using portfolio share approach of an auditing firm encounters a lot of problems in Iran.

Market share of an auditing firm: it is calculated by dividing total assets of all employers of a certain auditing firm in a special industry (SR) divided by sum of assets of all employers present in this industry (SRT).

4-3. the dominant market share of an auditing firm

The dominant market share of an auditing firm is calculated by using the following equation:

$$\left(\frac{1}{(FN)}\right) * \left(\frac{1}{2}\right) < \left(\frac{SR}{(SRT)}\right)$$

Where, the sum of assets of all employers of a certain auditing firm, in a certain industry (SR), is divided by total assets of all employers in the same industry (SRT). Following Palm Rose (1986) some entities were considered as the dominant market share of an auditing firm where their market shares (right hand equation) more than equation number 1 on the number of the present firms in an industry (FN) is multiplied by one and divided by two (that is the equation in the left).

4-4. Control Variables

In the present research and reg) 1 ıe researches done by Francis & et al (2012) and Shee & Shiyao (2012) the following variables were considered as control variables.

Firm Size (SIZE): firm size is calculated by using 1n sales' amounts.

Financial Leverage (LEV): it is measured based on the ratio of long-term debts to total assets of a company is measured.

Market value to book value (MBV): this variable is gained from the division of market value of a firm's stock at the end of the year to book value of equity. Table (1) shows trademarks of the variables and also their names:

Table1: Symbol and variables name of research

Symbol	variables name
R	equity costs
AMS	Market share of auditing firm
MSD	Dominant market share of auditing firm
MBV	Market value to book value
SIZE	Firm Size
LEV	Financial Leverage

5. Research Findings

5-1. Explanatory findings

The descriptive statistics of independent, dependent and control variables are presented in table (2).

Table2: Descriptive Statistics

Variable	MSD	AMS	R	SIZE	LEV	MBV
N	534	534	534	534	534	534
Mean	0.67	0.158	0.166	12.84	0.484	3.245
Std. Deviation	0.470	0.196	0.089	1.858	0.215	2.376
Minimum	0.0	1.210-	1.339-	4.009	0.076	0.010
Maximum	2.356	2.427	1.008	7.659	9.990	1.236

5-2. Empirical results

To study the normality of the variables and residuals we have used Kolmogorov-Smirnov test. If the probability amount related to this test is more than 0.05, we can approve the normality of the distribution of the variables with %95 assurance and vice versa. The results of this test in table (3) showed that all quantitative variables of the research except market value to book value have normal distribution. As it was observed the amount of probability of each one of the variables is more than 0.05. Thus, the data can be tested through a parametric test.

Table 3: the outcomes of Kolmogorov-Smirnov test

Variables	AMS	R	SIZE	LEV	MBV
Kolmogorov-Smirnov Z	1.35	1.42	0.92	1.22	2.46
Sig.	0.09	0.08	0.36	0.10	0.00

Pearson's correlation matrix is a test used to identify the correlation amount of the data. For example, in table (4) and in an assurance level of %99 there is a negative and meaningful relationship between equity cost and market share of an auditing firm which shows that the negative relationship between equity cost and market share of an auditing firm is %19.9.

Table 4: Pearson correlation coefficient

Variables	AMS	R	SIZE	LEV	MBV
AMS	1				
R	0.199*-	1			
SIZE	0.147*	0.264*-	1		
LEV	0.129*	-0.197*	-0.193*	1	
MBV	0.077-	0.144*	0.076-	-0.091*	1

*95% Confidence

5-3- Results of testing hypotheses

5-3-1- Results of testing first hypothesis

Regarding table (5), market share of an auditing firm does not have a meaningful effect on equity cost because the amount of F statistics equals 24.606 and the meaningfulness level (P-value) for it is less than %5. Thus, we can claim that the regression model has the identification ability and since the meaningfulness level of market share of an auditing firm (independent variable) is less than %5, regarding the meaningfulness level of the independent variable we can say that market share of an auditing firm has a negative and meaningful effect on equity cost. Also the control variables of firm size, financial leverage and market value to book value have a meaningful effect on equity cost. Durbin-Watson's test is between 1.5 and 2.5. Thus, we can conclude that there is not any self-correlation problem between the variables. Additionally, the amount of correlation coefficient shows that the changes in independent variables and control variables show %39.6 change in the dependent variable.

Table 5: The results of first hypothesis test

research variables	Coefficient of Regression	T	Sig.	F	P-value	D-W	R	R^2
AMS	0.121*-	2.956-	0.003	24.606	0.00	1.796	0.396	0.236
SIZE	0.283*-	6.821-	0.00					
LEV	-0.227*	5.484-	0.00					
MBV	0.093*	2.303	0.022					

5-3-2- Results of testing second hypothesis

Regarding table (6), the dominant market share of an auditing firm does not have a meaningful effect on equity cost because the amount of F statistics equals 28.501 and the meaningfulness level (P-value) for it is less than %5. Thus, we can claim that the regression model has the identification ability and since the meaningfulness level of the dominant market share of an auditing firm (independent variable) is less than %5, regarding the meaningfulness level of the independent variable we can say that the dominant market share of an auditing firm has a negative and meaningful effect on equity cost. Also the control variables of firm size, financial leverage and market value to book value have a meaningful effect on equity cost. Durbin-Watson's test is between 1.5 and 2.5. Thus, we can conclude that there is not any self-correlation problem between the variables. Additionally, the amount of correlation coefficient shows that the changes in independent variables and control variables show %34.2 change in the dependent variable.

Table 6: The results of second hypothesis test

research variables	Coefficient of Regression	T	Sig.	F	P-value	D-W	R	R^2
MSD	0.190*-	4.700-	0.00	28.501	0.00	1.772	0.342	0.277
SIZE	0.262*-	6.338-	0.00					
LEV	-0.232*	5.732-	0.00					
MBV	0.097*	2.427	0.016					

5-3-3- Results of testing the difference of second hypothesis

Equity cost in firms whose auditing entities have a dominant share in the market is different from those which do not have a dominant share in the market.

In table (7), regarding that with 8.888 F meaningfulness level is less than %5, the presupposition of equal amounts of variances for the two groups is not approved. Thus, an independent t test with adjusted freedom degrees is utilized. In the next stage and due to the lack of equality between the averages we will investigate about meaningfulness level, too. Because the amount of t test equals 6.090 and its meaningfulness level is less than %5, we can say with a %95 assurance that the averages of the two groups are not equal. In other words, equity cost in firms whose auditing entities have dominant shares in market is less than those firms that do not have dominant shares in market.

Table 7: The results of testing the difference of second hypothesis

Independent variable	N		Mean		Std. Deviation		t	Df	Sig.	Mean Difference
MSD	MSD	Non MSD	MSD	Non MSD	MSD	Non MSD	6.090	532	0.00	0/046
	324	210	0.148	0.194	0.004	0.006				

6. Conclusion

The goal of doing the present research was to identify the effect of market share of en auditing firm on equity cost in firms accepted in Tehran Stock Exchange. The research findings showed that generally speaking market share and the dominant market share of an auditing firm has a negative and meaningful effect on equity cost. This means that equity cost is one of the fundamental concepts in financial literature which plays a basic role in decisions about financing and investment. The firm management should consider equity cost important enough to identify the appropriate financial resources. Thus, the only way to reduce equity cost in an employer company is to present credit services. Market share of an auditor results in a more qualified auditing task. Thus, it is auditors who can prove by expanding the quality of financial reporting that these economic units have a better information atmosphere and reduce information risk by doing so. Finally they can reduce equity cost by increasing the credit rank and the transparency in an economic unit. Also the dominant market share of an auditing firm results in plenty of investment by the auditing firm in that industry which leads to be proficient in ha industry. Therefore, the dominant market share does also reduce equity cost.

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References

1. Aghaee, Parvin. (2002), "The effective factors on quality of auditing regarding the perspectives of independent auditors and users of auditing services", MA Dissertation, AlZahra University.
2. Almutairi.A, Kimberly.A, terrance, (2009), ”Auditor tenure, auditor specialization and information asymmetry”، WWW.SSRN. COM.
3. Balsam, S., Krishnan, J. and Yang, J. (2003), ‘‘Auditor industry specialization and earnings quality’’, Auditing: A Journal of Practice & Theory, Vol. 22 No. 2, pp. 71-97.
4. Beattie, V. A, Goodace, A, Pratt, K. C & Stevenson, j, E. (2003).” The Determinants of Audit Fees-Evidence from the voluntary sector. SSRN. elibrary.
5. Botosan, C. A. and M. A. plumlee, (2005). ”Assessing Alternative proxies fir the Expected Risk Premium”, The accounting review 80(1), pp.21-53.
6. Chan Li, Yuan Xie, and Jian Zhou. (2010). "National Level, City Level Auditor Industry Specialization and Cost of Debt". Accounting

Horizons American Accounting Association Vol. 24, No. 3.pp. 395–417.
7. Clatworthy, M.A.H.J.Mellett, and M,J.peel. (2002). The market for external audit services in the public sector: An Empirical Analysis of NHS trusts.journal of business Finance & Accounting. 29(9) &(10). nov./Dec.pp.1399-1439.
8. Francis, J. and Wilson, E. (1988), ‘‘Auditor changes: a joint test of theories related to agency costs and auditor differentiation’’, The Accounting Review, Vol. 63 No. 4, pp. 663-82.
9. Francis, J., LaFond, R., Olsson, P. and Schipper, K. (2004), ‘‘Costs of equity and earnings attributes’’, The Accounting Review, Vol. 79 No. 4, pp. 967-1010.
10. Francoice Derrien, Ambrus Kecskes, and Sattar A. Mansi. (2012). Information Asymmetry, the Cost of Debt, and Credit Events.www.ssrn.com
11. Guy D. Fernando. Ahmed M. Abdel-Meguid. Randal J. Elder. (2010). " Audit quality attributes, client size and cost of equity capital". Review of Accounting and Finance.Vol. 9 No. 4, 2010 pp. 363-381.
12. Gabhardt,W.R,Lee C.M.C. and Swaminathan,B. (2001) ”Thoward an implied cost of capital”, journal of accounting research 39(1),pp.135-176.
13. Hay,D,W.R.Knechel,and N.Wong. (2006).Audit Fees.A Meta-analysis of the effect of supply and demsnd attributes. Contemporary Accounting Research. Vol23.No1.Spring 2006.pp141-191.
14. Hassas-e-Yeghaneh, Yahya; Pakizeh, Kamran. (2007), "The quality of financial reporting, auditing and corporate governance", Monthly Journal of Accountants, No. 182, P: 40.
15. Kend M. (2008). "Client industry audit expertise: towards a better understanding", Pacific Accounting Review, Vol 20, pp. 49-62.
16. Krishnan, G. (2003), ‘‘Does Big 6 auditor industry expertise constrain earnings management?’’, Accounting Horizons, Vol. 17 (Supplement), pp. 1-16.
17. Namazi, Mohammad; Bayzadi, Anvar; Jabbarzadeh-e-Kangarloee, Saeed (2010), "Studying the relationship between quality of auditing and earnings management", Journal of Accounting and Auditing Studies, Second Year, No. 9, PP: 4-22.
18. Nazemi-e-Ardakani, Mahdi (2009), "The specialization of an auditor's industry and earnings management", MA Dissertation, Department of Economy.
19. Nikoomaram, Hashem; Amini, Peyman (2011), "Earnings quality and capital cost", Bond analysis' financial knowledge magazine, No. 10.
20. Palmrose, Z. (1986). "Audit fees and auditor size: Further evidence". Journal of Accounting Research 24(Spring): 97-110.
21. Peecha,s. Mark,E.et al. (2005). “it is all about audit quality:perspectives on strategic - saystems auditing”. Accounting organizations and society. pp: 4-10
22. Shai Levi and Xiao-Jun Zhang. (2012). Do temporary increases in information asymmetry affect the cost of equity?.www.ssrn.com.
23. Taylor, M. (1997),’The market for audit services in japan”, pacific Accounting Review,vol.9 No.2, pp59-74.
24. Zengin, Yasemin. Serdar,Ozkan. (2010).“ audit quality and earnings management in interim financial reports”. www.SSRN.com.

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