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Research Article

Audit Quality, Risk-Taking, and Value Creation: Iranian Evidence

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Abstract

The present study aims to evaluate the relationship between audit quality, risk-taking, and value creation. The population under study is the listed companies on the Tehran Stock Exchange. The study covers 1764 company-year from 2005-2016. This study is based on the panel data and multivariate regression method. Fixed and random effects methods employed to estimate the regression. In this paper, five components of audit quality, including auditor specialization, tenure, audit firm size, ownership concentration, and the percentage of unbounded board members, were studied. The results indicate that only tenure and ownership concentration has a significant relationship with companies' value creation among these five components and the risk factor.

Keywords: audit quality, risk-taking, value creation.

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1. Introduction

One of the significant factors influencing the decisions on investment within a country is the range of risk-taking, in a way that most of the investment managers are presently concerned about the accuracy of risk estimation and, subsequently the risk management to reduce the risk to the minimum possible (Dalton et al., 2015). The present study explores the relationship between audit quality, risk-taking, and value creation of a business unit. Generally, risk and return are the most significant investment concepts, which always accompanied the investment decisions and considered the basis of decision-making. Risk-taking could be defined as "carrying out any activities, which have at least an ambiguous and uncertain result" (Su & Wu, 2016). On the other hand, risk-taking in this research is referred to as that uncertainty range, which is related to the expected results and the correlated cash flows occurred due to the new investments (Wang and Huang, 2009). Auditing through reducing information asymmetry and agency conflict between users and providers of financial statements will modify the management's harmful effects of separation of ownership. Hence, the audit quality is a tool to mitigate the information risk for users of financial statements. Such information risk reduction could bring about value creation for shareholders because it provides the users with reasonable assurance about any significant deviations and frauds (Furiady and Kurnia, 2015).

Understating the relationship between audit quality, risk-taking, and value creation within the business units of undeveloped countries, with traditional market structures and inefficient capital market, is of great importance and would lead to a more appropriate return. Value creation is roughly dependent on the value achieved by the end-user (buyer), which is concentrated on the value creation- whether it be an individual, an organization, or a community- and such an inclination will lead to currency exchange the obtained value. We could name two principal conditions, which are vital for the success of value creation activities. First, the exchanged currency's quantity must be higher than the producer (currency, time, effort, etc.). Second, the amount of money the purchaser paid for the service. These two conditions indicate a function that differentiates the newly created value from buyers' objectives. Overall, no buyer and no value creator would never seek the reoccurrence of such activities in the long term without such differences. Accordingly, concerning the increasing significance of a business unit's audit quality and risk-taking, this study evaluates the relationship between the so-called factors and value creation within a business unit.

2. Theoretical issues

Auditing for financial statements provides an added value because the results indicate the contents' relatedness and reliability. This is because by establishing a sensible trust in statements contains material misstatements and manipulation in the reported net profit, the company resources would be in line with the objectives of the organization and shareholders, and this will motivate the shareholders to invest in the company (Lin et al., 2011).

Audit quality was first defined by DeAngelo (1981) as the evaluation of an auditor's competency in detecting significant distortions and their related reports. The likelihood of uncovering distorted items is contingent on the auditor's competency, and the chance of reporting the distorted items relies on the auditor's independence (Hoag et al., 2017). Sulaiman et al. (2017) stated that auditing is an essential tool in decreasing the agency costs between managers and shareholders because auditors report incorrect financial statements. By conducting high-quality audits, auditors could prevent such a phenomenon. Audit quality is not directly observable. Thus, scholars replace a variable or some variables to measure the audit quality. These alternative variables concern a

particular factor. Some of them focus on financial statements, like distortions (Carcello and Nagy, 2004). Some others concentrate on discretionary accruals (Jensen, 2002; Reheul et al., 2013; Dibia et al., 2013). In addition to these studies, Ghosh and Moon (2005) used the earnings financial restatement for measuring the audit quality (Myres et al., 2003). Abbott et al. (2004), Salleh, and Stewart (2012 and Zhang (2017) argued that the more the audit quality and the amount of acquaintance of auditor of the type of activity of the client, the less is the possibility of financial restatement in upcoming years. In other words, there is a negative relationship between audit quality and financial restatement. In the present study, two different methods were used for measuring the audit quality, namely audit quality measurement using the earnings management (discretionary accruals) and financial restatement.

2.1. Auditor specialization

Increasing industry specialization level is among the strategies currently used in audit firms to enhance profitability. By auditor industry specialization, we mean to create innovative ideas (added value), to help the clients, and to provide novel approaches and strategies in some areas where some of the clients in the related industry are faced with (Kend, 2008). Cost reduction is due to the application of specialized auditors more than the amount of savings resulting from other auditors' use. Most of the time, an auditor who analyzes a considerable number of companies in a particular industry (a specialized auditor in that industry) produces more savings due to some reasons, including experience, than other auditors, so he asks for less pay than others. The other reason is that specialized auditors are better consultants for disclosing information and can rectify accounting process problems and financial reporting more appropriately. Furthermore, using a specialized auditor means that the company is intended to provide a better report and disclosure (even better than other companies) (Rusmin et al., 2017). Since the specialized auditor analyzes many companies in the same industry, they are more experienced than other auditors. Hence, their competency for detecting significant distortions and biases in clients' disclosed information is higher than that of the others. Moreover, they try to retain their popularity and market share, not take the mistakes or distortions for granted. Thus, gaining specialization in a certain industry, either by the auditor's demand or by the client, could practically lead to a higher quality of disclosure and financial reporting of the client (Astami et al., 2017).

Kim et al. (2006) indicated that the auditor's specialization in an industry, which is calculated according to the auditor’s share of the market in that industry, has had a significant effect on the client’s quality disclosure. The findings of Boon et al. (2010) substantiated the significant relationship between auditor’s specialization, audit quality, and client’s disclosure, especially for earnings. The results of Brown et al. (2016) indicated that in line with the increase of auditor’s specialization in an industry, the audit firm could better detect and report the significant errors and distortions of disclosed information and pursue the analysis process with higher quality. Thus, we predict that an auditor's specialization in a particular industry could elevate the audit quality. Although much attention is paid recently to auditor industry specialization, there is still no single measurement criterion (Neal and Riley, 2004). Two primary factors for the identification of a specialist auditor are:

Market share approach (Balsam et al., 2003; Dunn and Mayhew, 2004);

Portfolio share approach (Krishnan, 2003).

Moreover, Neal and Riley (2004) proposed a combined criterion, a function of market share and portfolio share.

The industry with more clients in its portfolio in terms of sale, total properties, etc., displays a market with specialist auditors. The third proposed criterion is a combination

of portfolio and market share approach (Neal and Riley, 2004).

Jimmy et al. (2014) found a positive relationship between auditing industry specialization and two risk-taking scales. Randal et al. (2015) concluded that employing specialist auditors' cycle of policies could indirectly improve audit quality. Yuan et al. (2016) showed that the negative relationship between industry specialization and the client's optional obligations is much closer when his/her business strategy is derived from regular industry strategies.

H_1: There is a significant relationship between auditor specialization and value creation.

H_2: Auditor specialization affects the relationship between corporate risk-taking and value creation.

2.2. Auditor tenure

The longer the tenure duration, the more the auditor is acquainted with clients, and the higher his/her expertise in the related industry and the higher the resulting audit quality (Myers et al., 2003). Su and Wu (2016) showed that the possibility of presenting an adjusted report is higher in companies with a changing auditor partner. Choi and Jeter (2016) showed a positive and significant relationship between auditor tenure and adjusted audit reports.

H_3: There is a significant relationship between audit tenure and value creation.

H_4: Auditor tenure affects the relationship between corporate risk-taking and value creation.

2.3. Audit firm size

By auditor size, we mean auditor reputation (brand). Accordingly, auditor reputation will increase the reliability of financial statement information and enhance audit quality (Chen et al., 2005).

In general, the bigger the audit firm size, the higher is the audit quality (DeAnjelo, 1981; Choi et al., 2008). By the firm size, we mean the fame of the auditor (brand). DeAngelo believes that bigger audit firms propose better audit services because they like to acquire a higher market reputation. Since there are many clients, they are concerned about losing their positions. Madhani (2016) declared the methods of disclosure and corporate governance of business units are under the influence of various local and foreign variables. A business unit's features, including the size, age, lever, etc., affect these methods. By analyzing the impacts of the corporate size on corporate governance and the methods of disclosure of a business unit, the researchers tested the empirical shreds of evidence of such a relationship.

H_5: There is a significant relationship between the audit firm size and value creation.

H_6: The size of an audit firm will affect the relationship between corporate risk-taking and value creation.

2.4. The percentage of non-executive directors

One of the other contributing factors to audit quality is the percentage of non-executive directors. These managers are more ambitious than other board members are in monitoring the performance of executive managers and the financial reporting process, so better surveillance will help the perseverance and enhancement of their job position. When more non-executive directors are affiliated, investors and shareholders find the financial reports more reliable. The possibility of earnings manipulation and distortion, tax evasion, and tax avoidance is few.

H_7: There is a significant relationship between non-executive directors and value creation.

H_8: The percentage of non-executive directors contributes to the relationship between corporate risk-taking and value creation.

2.5. Ownership concentration

Ownership concentration is another way of poignant corporate governance. It could supervise the management and other components of the company, lower the possibility of any fraud in the financial statements, and align the interests of management and shareholders (Kim et al., 2010). Thus, it seems that ownership concentration, which is in line with absolute control of major shareholders on corporate affairs, could affect the audit quality.

Boubakri et al. (2013) found an inverse relationship between state ownership and value creation, and the relationship between foreign ownership and value creation is significant.

Yizhe Dong et al. (2014) observed that the value creation in banks with a high range of state ownership is considerably lower than banks with institutional ownership.

Azadi and Mohammadi (2015) showed no relationship between institutional ownership and audit fees and substantiated the relationship between ownership concentration and audit fees as significant and positive.

Alsharkas (2015) noticed that there is a unique positive relationship between audit firm size and innovation.

H_9: There is a significant relationship between ownership concentration and value creation.

H_{10}: Ownership concentration could affect the relationship between corporate risk-taking and value creation.

2.6. Risk

Regarding agency theory, managers will consider their risk only when their decisions affect a business unit's risk-taking. On the other hand, they could not simply lessen their risk through diversification as shareholders do (Uddin, 2016). The financial records reveal that since shareholders are risk-takers, they prefer investment in positive net present value projects regardless of the risks (John et al., 2008; Paligorova, 2010; Manos et al., 2014; Furiady and Kurnia, 2015).

Concerning the high concentration of managers on human capital and control, they could mitigate its risk. Hence, managers would potentially avoid high-risk investment opportunities that reduce the corporate credit; such projects would cause financial bottlenecks and work dismissal (John et al., 2008; low et al., 2009). Moreover, developing a high-risk project design would incur additional personal costs for managers (Chen et al., 2005; Huang and Wang, 2009). The study of Jensen and Mechling (1976) indicated that surveillance would align the goals and motivate the managers to step toward owners' interests through auditing.

Eskandari et al. (2012) illustrated that companies with higher research and development costs have significantly higher value creation.

Hardjou et al. (2014) showed that well-managed New Zealand companies, regarding other conditions, have experienced relatively lower levels of risk (fluctuation of stock return). These results were revealed explicitly that corporate management's divergent aspects, including the board of directors, shareholders’ rights, and disclosure measures, have lower risk levels.

Hoelscher and Seavey (2014) found a positive relationship between specialization and risk-taking indexes, an annual standard deviation of stock returns, and research and development results. Lawal et al. (2016) declared that the capital market theory is related to the equilibrium of the relationship between risk and expected return of high-risk assets. The results showed no significant relationship between the corporate size or any other

sections and risk or return of a business unit in the capital market.

H_{11}: There is a significant relationship between corporate risk-taking and value creation.

2.7. What is value creation, and how it could be calculated?

Uddin (2016) introduced two values at the organizational analysis level: use of value and exchange of value. The value is concerned about the specific quality of a job, duty, product, or service that users will consider concerning their needs, as the velocity or quality of performance in a new career or the forms and functional peculiarities of a new product or service. As stated by Bowman and Ambrosini (2006), such judgments are of personal and subjective characteristics. They called the second type the exchange of value, which is defined as the sum of currency came from a certain period, namely during the exchange of duty, work, product, or new service, or as the amount of money incurred by the customer to the deal to use the value of that duty, work, product, or service.

Tseng et al. (2015) showed that human and financial capitals contribute to a business unit's value creation, and macroeconomic conditions should be considered in strategic and value creation management. Sung and Young (2016) indicated that companies with more senior managers from high-ranking universities enjoy a higher Tobin's Q index. This relationship is tougher in challenging situations where the company is facing more fluctuations confrontations, like financial bottlenecks.

Tantalou and Periem (2016) bring about new value creation opportunities, which are specifically and strategically effective, because an individual strategic operation would firstly cause the enhancement of various types of values for two or several groups of shareholders and secondly, will mitigate the value, which is created by another group of shareholders, so far. The interaction view of shareholders provides novel approaches for an extensive understanding of value creation.

3. Research methodology

The study's statistical population includes all companies listed on the Tehran Stock Exchange, which active continuously from 2005 to 2016. Compared with other companies, such a statistical population's advantages are its clearer information, surveillance on financial statements, and its poignant information setting of listed companies on the Tehran Stock Exchange. The statistical sample of the study was companies listed in Tehran Stock Exchange from 2005 and had the following characteristics:

- The selected company was not among financial intermediaries and investment, holding, banking, and leasing companies;
- Their fiscal year ends in February;
- Did not have any operational cessation, change of activity, or change in their fiscal year;
- Were active in the stock during the study period.

Considering the limitation mentioned above, the statistical sample comprises 147 companies within 12 years, which made a total of 1764 company years.

3.1. Research model

To evaluate the relationship between audit quality, risk-taking, and value creation of a business unit and to test the research hypotheses, the following regression models were employed:

Model 1:

$Vc= \beta_0+\beta_1 Specialist_{it}+\beta_2 Tenure_{it}+\beta_3 Firm\ size_{it}+\beta_4 BM_{it}+\beta_5 Ownership\ Concentration_{it}$

$+\beta_6 Risk_{it}+\beta_7 Influence_{it}+\beta_8 Dpr_{it}+\beta_9 Ret_{it}+\beta_{10} Comp_{it}+\beta_{11} Std\text{-}Ocf_{it}+\beta_{12} Age_{it}+\beta_{13} Btm_{it}+\beta_{14} Roa_{it}+\beta_{15} Leverage_{it}+\beta_{16} size_{it}+e_{it}$

Model 2:

$Vc= \beta_0 +\beta_1 Specialist_{it}+ \beta_2 Tenure_{it} + \beta_3 Firm\ size_{it} + \beta_4 BM_{it} + \beta_5 Ownership\ Concentration_{it} + \beta_6 Risk_{it} +\beta_7 Risk\ .Specialist_{it}+ \beta_8 Risk.\ Tenure_{it} + \beta_9 Risk\ .Firm\ Size_{it} + \beta_{10} Risk.\ BM_{it} + \beta_{11} Risk\ .Ownership\ Concentration_{it} +\beta_{12} Influence_{it}+\beta_{13} Dpr_{it}+\beta_{14} Ret_{it}+ \beta_{15} Comp_{it} +\beta_{16} Std\text{-}Ocf_{it}+\beta_{17} Age_{it}+\beta_{18} Btm_{it}+\beta_{19} Roa_{it}+\beta_{20} Leverage_{it}+\beta_{21} Size_{it}+ e_{it}$

In this research, the first model was used to evaluate the relationship between audit quality, risk-taking, and value creation. The second model was adopted to evaluate the effect of measurement criteria of audit quality on the relationship between risk-taking and value creation.

3.2. Research variables

3.2.1. Dependent variable:

Value creation of a company (vc): to calculate the value creation, we focused on the difference between the company's common stock market value and the book value of the stock (Tseng e al., 2015).

3.2.2. Independent variables:

Specialization (specialist): market share approach is used to calculate the specialization, such that an audit firm with a higher industry market share is considered as the specialist (Balsam et al., 2003; Dunn and Myhew, 2004).

Auditor tenure: Auditor tenure, as one of the independent variables of the model, displays the number of years an auditor is employed in a company. Auditor tenure of fewer than three years obtains number one, otherwise zero.

Audit firm size: If the audit organization addresses the company, obtains one, otherwise zero.

The percentage of unbounded board members (BM): the proportion of unbounded board members to total board members.

Ownership concentration: the proportion of share percentage held by major shareholders (higher than 5%) to total share.

Risk: standard deviation of stock returns (Markowitz, 1996).

3. 2.3. Control variables:

Client influence: the ratio of a particular client's annual fee to total annual fees achieved by a specific audit firm.

Dividend payout ratio (DPR): the ratio of cash earnings payout to the earnings per share.

Return: the ratio of total earnings from investors within a certain period to the consumed investment.

Board of directors' compensation (COMP): natural logarithm of the Board of Directors' compensation.

Operational cash flows (STD-OCF): are derived from cash flows, which become homogenous through total assets in the first period (Kothari et al., 2005).

Age of corporate manager (AGE): the closer the executive authorities to their retirements, the lower their motivation to participate in high-risk investments. Therefore, their age is of great importance (Dechow and Solan, 1991).

The book's ratio to market value (BTM): dividing the book value into the market value.

Return of assets (ROA): the ratio of earnings before extraordinary items to total

assets.

Financial leverage (LEV): the ratio of the total book value of corporate debts to total assets.

Firm size: market value natural logarithm for the rights of corporate shareholders.

4. Research findings:

4.1. Descriptive statistics

Information related to descriptive statistics, including dependent, main, and independent control variables, were gathered from 12 years of corporates data. Table 1 shows the descriptive statistics of research variables and descriptive parameters per variable. These parameters mainly comprise central indexes, like minimum, maximum, mean, medium, and information related to dispersion indices, like the standard deviation. The most significant central index shows the equilibrium and center of distribution and could be an appropriate index for centrality.

Table 1. Descriptive statistics by the sample years understudy

Variable	OwnCon	BM	Risk	ROA	AGE	BTM	RET	INFLUENCE	LEV	DPR	SIZE	STDOCF	COMP	VC
Medium	0.408	0.642	12.73	0.131	33.44	0.759	0.04	0.714	0.667	0.115	13.18	0.088	9.634	13.106
Mean	0.330	0.6	9.595	0.121	35.00	0.775	0.103	0.253	0.668	0.069	13.02	0.041	9.454	13.07
Minimum	0.00	0.00	0.062	-0.717	34.00	0.00	0.001	0.00	0.085	0.00	9.81	0.006	3.46	8.43
Maximum	1.18	1.00	46.79	1.533	62.00	5.964	4.01	5.33	3.064	1.779	18.82	9.032	16.201	18.86
Standard Deviation	0.343	0.161	17.418	0.139	12.98	0.335	0.208	2.039	0.226	0.162	1.387	0.256	1.778	1.482
Variance	0.118	0.026	30.34	0.02	16.856	0.112	0.043	4.158	0.051	0.026	1.926	0.066	3.162	2.197

According to the theoretical principles of statistics, one of the classic hypotheses of regression models is that the statistical distribution of research variables should be normal; however, when the sample size is big enough, and other classic hypotheses are regulated, deviation from the normal hypothesis is usually insignificant, and its consequences are trivial. In such a situation and concerning the Central Limit Theorem, we could conclude that even if the residuals were not normal, the test statistics would pursue appropriately asymptotical distributions, not be biased, and work efficiently. Hence, we could ignore some factors suggesting data abnormality and consider them normal regarding a large number of research data.

4.2. Data analysis and research model fitting:

Model 1:

Table 2 depicts the obtained results from a selection among regression models for research model fitting. For this purpose, the F Limer test was performed to evaluate and select both the fixed-effects model and the least ordinary squares model. Since the latter's P-value is less than 0.05, the null hypothesis is rejected, and the former model is selected. Secondly, using the Hausman test, we decided between fixed effects and random-effects models. Concerning Table 2, the P-value of this test is more than 0.05, and the results confirmed the use of a random-effects model for fitting. Next, data integrability studied using the Breusch-Pagan test. In this stage, the P-value was less than 0.05, which substantiated the lack of data integration. One of the regression models' basic hypotheses is that there should not be a serial autocorrelation among the model errors, so we used the Breusch-Godfrey test for this purpose. Since the resultant P-value is less than 0.05, we could conclude a serial autocorrelation in this model. An extended random effects panel data model should be used for fitting.

Table 2. The summary of diagnostic tests for the best regression model for panel data fitting

Type of test	P-value	Null hypothesis	Result
F Limer test	0.05>	Ordinary least squares Model	Fixed effects model
Hausman test	0.934	Random effects model	Random effects model
Breusch-Pagan test	0.05>	Data integrability	Random effects model
Breusch-Godfrey test	0.05>	The absence of serial autocorrelation	The presence of serial autocorrelation

Table 3 presents the results of model fitting, the estimated beta coefficients, and the P-value regarding the performed tests and the random-effects model's optimal use to fit the regression model to evaluate the research hypothesis's significance.

Table 3. The results of the model fitting through random effects of extended panel regression

Variable	Coefficient	S.d	Test of statistic	P-value
Intercepts	-8.23520	18.174	-0.453	0.651
factor(spi)1	-1.17501	3.377	-0.348	0.728
factor(tenure)1	5.71615	2.453	-2.330	0.020
factor(firmsize)1	-4.82802	4.138	-1.167	0.243
BM	9.00612	9.703	0.928	0.353
Owncon	4.051932	7.357	5.508	0.000
Risk	3.208	0.057	0.560	0.576
INFLUENCE	-4.6180	0.538	-0.859	0.390
DPR	-4.75657	8.118	-0.586	0.558
RET	5.6542	4.720	0.120	0.905
COMP	3.1948	0.438	0.729	0.466
STDOCF	1.24590	4.079	0.305	0.760
AGE	-2.115	0.128	-0.166	0.869
BTM	1.47155	4.300	0.342	0.732
ROA	-4.43515	11.170	-0.397	0.691
LEV	4.46021	7.016	0.636	0.525
SIZA	4.2563	1.300	0.327	0.743

4.3. Results of the hypotheses of the first model

According to the results of table 3 and regarding the P-value of auditor specialization, which is equal to 0.728 and higher than 0.05, we could conclude that there is no relationship between auditor specialization and value creation of a business unit. On the other hand, since the auditor tenure variable has a P-value of 0.020, which is less than 0.05, the null hypothesis is rejected. We conclude that there is a significant relationship between auditor tenure and value creation.

Using the heuristic method, the result of three quantitative variables, namely the percentage of unbounded board members, ownership concentration, and risk, are as follows:

Table 4. The results of model fitting for evaluating the relationship between the percentage of unbounded members, ownership concentration, and risk and the value creation of a business unit

Variable	Coefficient	S.d	Test of statistic	P-value
BM	10.05618	9.66053	1.041	0.2979
Owncon	40.76102	7.32869	5.562	2.67E-08
Risk	3134	0.05735	0.546	0.5847

According to Table 4 and the obtained P-value for the percentage of unbounded board members, which is equal to 0.2979 and more than 0.05, we conclude that the null hypothesis is rejected. There is no relationship significant between the percentage of unbounded board members and value creation.

Model 2:

We evaluated the range of integrability using the Breusch-Pagan test. In this stage, the P-value is less than 0.05 and indicates the lack of data integrability. Furthermore, since the Breusch test's P-value is less than 0.05, we conclude a serial autocorrelation. An extended random effects panel data model should be used for model fitting.

Table 5. The summary of diagnostic tests for the best second model for panel data fitting

Type of test	P-value	Null hypothesis	Result
F Limer test	0.05>	Ordinary least squares Model	Fixed effects model
Hausman test	9.2334	Random effects model	Fixed effects model
Breusch-Pagan test	0.05>	Data integrability	Fixed effects model
Breusch-Godfrey test	0.05>	The absence of serial autocorrelation	The presence of serial autocorrelation

Table 6 displays the fitting results of the second model.

Table 6. The results of the model fitting through random effects of extended panel regression

Variable	coefficient	The standard deviation of error	Test of statistic	P-value
(Intercept)	-1.105093	18.637902	-0.210	0.8340
factor(spi)1	5.58653	4.031037	0.089	0.9295
Risk	-7.50752	0.326722	-0.787	0.4314
factor(tenure)1	5.446165	3.24927	-1.729	0.0839
factor(firmsize)1	-3.16223	4.608503	-0.686	0.4926
BM	1.37863	11.77603	0.117	0.9068
owncon	4.781928	8.052884	4.755	1.98E-06
INFLUENCE	-8.59054	0.537519	-0.839	0.4015
DPR	-2.970634	8.141413	-0.536	0.5922
RET	6.92585	4.718439	0.124	0.9013
COMP	2.34923	0.438334	0.752	0.4523
STDOCF	2.171421	4.079222	0.304	0.7608
AGE	-2.0882	0.128036	-0.225	0.822
BTM	7.321561	4.306358	0.383	0.7014
ROA	-7.097544	11.19013	-0.398	0.6904
LEV	3.861154	7.023182	0.642	0.5206
SIZA	6.79734	1.300242	0.337	0.7362
factor(spi)1:Risk	-2.12931	0.166771	-0.835	0.4039
Risk:factor(tenure)1	-5.603	0.169894	-0.018	0.9856
Risk:factor(firmsize)1	-4.96731	0.186061	-0.74	0.4593
Risk:BM	5.0346	0.504303	0.998	0.3181
Risk:owncon	2.70571	0.284738	0.615	0.5387

4.4. Results of the hypotheses of the second model

Regarding the P-value of 0.4039, which is more than 0.05, we conclude that auditor specialization does not affect the relationship between corporate risk-taking and value creation, so the seventh hypothesis is rejected.

Additionally, the board of directors' independence does not affect the relationship between corporate risk-taking and value creation because the related P-value is 0.3181 and more than 0.05, so the tenth hypothesis is rejected.

5. Conclusion

The obtained results indicated no relationship between auditor specialization and value creation of a business unit. The results revealed that the auditor's audit quality and even high specialization could not affect the value creation of companies listed on the Tehran Stock Exchange. Auditor specialization creates no value for the owners, as well. Jimmy et al. (2014) showed a positive relationship between auditor industry specialization and the two scales of risk-taking: stock return standard deviation and research and development costs. Hogan et al. (2015) indicated that the paid corporate tax is reduced by increasing audit quality (auditor specialization).

Further, the results show that auditor specialization does not affect the relationship between corporate risk-taking and value creation. Lennox et al. (2014) indicated a negative relationship between auditor specialization and auditor adjustments. Franco and Merton (2015) suggested a negative relationship between auditor specialization and temporal asymmetry of earnings.

Davis et al. (2016) indicated that the earnings forecast's power is more in companies with a higher tenure period. Choi and Jeter (2016) illustrated a significant relationship between auditor tenure and type of auditor statements. The results also reveal that auditor tenure does not affect the relationship between corporate risk-taking and value creation. Ewelt et al. (2016) showed that earnings management motivation is lower in companies audited by four big audit firms. It also reveals that audit firm size does not contribute to the relationship between corporate risk-taking and value creation., Heian Jing et al. (2015) indicated that companies, which are audited by four big audit firms, are faced with fewer restatements. Neal and Riley (2015) showed that companies with higher risk-taking would pay less tax expense. The results also show no significant relationship between unbounded members of the board of directors and a business unit's value creation. Richardson et al. (2015) indicated a significant relationship between the percentage of unbounded board members and tax expenses.

. Hanlon (2016) indicated an inverse relationship between the board structure (board independence) and systematic risk. The results show a significant relationship between ownership concentration and the value creation of a business unit.

Finally, suppose other academies intend to study audit quality. In that case, it should be more useful to use other audit quality indices, like the type of audit report, earnings management, annual adjustments, etc. to the calculation of audit quality and compare the results with the current findings. It is also suggested that future researchers take some other major criteria, like information asymmetry, agency expenses, type of ownership, and the presence or absence of audit committee into consideration in the evaluation of the relationship between audit quality and risk-taking of a business unit. It seems that such factors could contribute extensively to the relationship between audit quality and the risk of a business unit.

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