

### The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according to Competition Theory (Empirical Evidence from Tehran Stock Exchange)

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### ABSTRACT

The present research studied the effect of prospective business strategy on audit fee and auditor's opinion according to competition theory and risk-based auditing theory. It investigated whether audit fee and independent auditor's opinion are affected by the client's business strategy. The statistical population included firms listed in Tehran Stock Exchange, out of which 75, from period 2010-2018, were selected as the sample. To conduct statistical analyses, multiple linear regression with least squares (LS) method with panel-fixed effects approach, and binary logistic regression were used. Data analysis showed that the artificial variable "prospective business strategy" has a positive, significant relationship with dependent variables "audit fee" and "auditor's modified opinion". It can be thus concluded that audit fee and the probability of issuing a modified audit opinion are greater in clients with prospective business strategy. The research results provided, for the first time, evidence on the empirical relationship between client's business strategy and audit fee and auditor's opinion. Therefore, they can be exploited in legislations on auditing.

### **Keywords:**

prospective business strategy, audit fee, modified opinion, competition theory, risk-based auditing theory



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2 / The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according ...

### **1. Introduction**

The present research empirically investigated the effect of prospective business strategy on audit fee and auditor's opinion in 75 firms listed in Tehran Stock Exchange (TSE) in the period 2010-2018. Audit fee is one of the most important agency costs incurred on shareholders for controlling the agent (manager); auditor's opinion is a determinant of financial statement reliability for users of accounting information. Therefore, identifying factors affecting the audit fee and auditor's opinion is of particular importance since it is useful in planning to reduce the audit fee and improve the independent auditor's opinion. Paying no attention to the role of clients' business strategy, literature on auditing is more focused on the effect of auditor's specific features such as auditor size and type of auditor on audit fee, independent auditor's opinion, and audit quality (DeAngelo, 1981; Dehkordi and Makarem, 2011; Chen et al., 2011; Lawrence et al., 2011). The present research thus provides, for the first time, empirical evidence on this issue.

Audit fee is a cost incurred on shareholders for controlling the agent (manager) so as to better adapt the managers' benefits to the shareholders' (Nikumaram and Banimahd, 2012). Independent auditor's opinion is a technical, professional opinion concerning the client's financial statements, issued by an independent auditor, which typically includes qualified, unqualified, adverse, and disclaimer of opinion (Makarem and Saffarian, 2011). According to arguments of previous studies as well as the competition theory and the risk-based auditing theory, the client's business strategy in competitions is a factor that can affect the audit fee and auditor's opinion. Business strategy is adopted by a client to adjust its business activities. The client's business strategy is generally divided into two groups of prospective and defensive. While in prospective business strategy, clients attempt to increase their profitability and market share through research and development (R&D) activities and marketing, in defensive business strategy, they do not make much endeavor to expand their product market and increase profitability (Bentley et al., 2013).

Given the fact that implicit business risks of each business strategy differ, and consequently, the features of each business strategy (such as the rate of business risks caused by each strategy) affect the auditors' decisions and their auditing processes differently, it is not empirically clear what relationship exists between the client's business strategy and audit fee and auditor's opinion. Previous studies showed that auditors take into account, on the strength of the riskbased auditing theory, the effect of the client's business risk on their own business and on the auditing risk (Johnstone, 2000). In particular, following the competition theory, Bentley et al. (2013) argue that clients with prospective business strategy in competitions have low-quality financial statements since these clients must deal with research and development and marketing expenses; these are arbitrary items, inciting the manager to manipulate the accounting information. Given the above theoretical reasoning, it can be argued that auditing risk for clients with prospective business strategy is more than that of others; therefore, audit fee and probability of issuing modified (unqualified) opinion for these clients are greater than others. According to this argument, the present research investigated whether audit fee and probability of issuing modified opinion by the independent auditor are empirically greater in clients with prospective business strategy compared to other ones.

This research question is theoretically associated with competition theory and risk-based auditing theory. The competition theory suggests that firms adopt a specific business strategy for their business competitions and act accordingly to increase their profitability, value-creation, and future growth. Each strategy has its own features (e.g. its effect on quality of accounting information). On the other hand, according to the risk-based auditing fundamentals, auditors must pay attention, in auditing financial statements, to the clients' business strategy, and correspondingly adjust their auditing processes (including audit fee and auditor's opinion). Therefore, the competition theory and the risk-based auditing theory predict a significant relationship between client's business strategy and audit fee and auditor's opinion. Empirical study of the relationship between client's business strategy and audit fee and auditor's opinion is thus ascribed to the competition theory and the risk-based auditing theory.

This research has key achievements. First, the results provide, for the first time, evidence on the effect of clients' prospective business strategy on audit fee and auditor's opinion in the research context of

Vol.8 / No.30 / Summer 2023

Iran. Second, the results present the earliest empirical evidence on arguments of competition theory and riskbased auditing theory with regard to firms listed in Tehran Stock Exchange. Third, the results help auditors take notice of clients' type of business strategies in planning for their auditing processes. Hence, they can be exploited in legislations on auditing. Fourth, the present results enable investors and other stakeholders to estimate audit fee and auditor's opinion for these clients by paying attention to their business strategy.

### 2. Theoretical foundations and literature review

### 2.1. Audit fee

Audit fee is one of the firms' agency costs, incurred on shareholders, aiming at controlling and monitoring the agent's performance. Agency cost is a concept originating from the agency theory - a descriptiveinstructional theory that describes the conflict of interest between manager and shareholders, and subsequently, offers solutions to reduce and resolve these conflicts. The most important solution proposed by the agency theory to reduce negative consequences of conflict of interest between manager (agent) and shareholders (principal) is to audit financial statements. Agency theory views audit fee of financial statements (independent auditor's fee) as one of the most significant agency costs (Nikumaram and Banimahd, 2012; Hasas Yeganeh, 2011; Rahnamaye Rudposhti and Salehi, 2013).

### 2.2. Independent auditor's opinion

Independent auditor's report includes paragraphs indicating reports on financial statements, board of directors' obligations on financial statements, auditor's liability, and opinion. The opinion paragraph is the most critical part of the independent auditor's report, containing the auditor's opinion concerning the generality of financial statements and how much they comply with accounting standards. The independent auditor's opinion on client's financial statements can be either qualified, unqualified, adverse, or disclaimer of opinion. Qualified opinion on financial statements is issued when client's financial statements comply with accounting standards from all important aspects. Otherwise, the auditor's opinion concerning the client's financial statements is modified (unqualified) (Makarem and Safarian, 2011).

### 2.3. Client's business strategy

Business strategy is the procedure a firm adopts to accomplish its business activities, which can be either prospective or defensive. Prospectors are innovative firms seeking new products and market opportunities; they have a wide variety of products and are interested in rapidly changing their product mix to take the lead in attractive markets. Prospectors allocate a major part of their budget to R&D and marketing. Spending large amounts of money on R&D enables prospectors to quickly react to changes and enter new markets. They retain their resilience, yet avoid investing in highlymechanized technologies that can be used to produce only a specific type of product. This allows prospectors to quickly react to market changes while preserving their efficiency in production and distribution. Since they focus on identifying new markets to enter rather than gradually penetrating the current markets, their growth is often eclectic. Finally, given that prospectors have various operations, controlling is often decentralized (Miles and Snow, 1978 and 2003), leading to increased complexity and operational risks. On the other hand, defenders focus on production efficiency and distribution of goods and services, have limited product or service mix, and concentrate on gaining competitive advantage in their compressed market. These firms may manufacture different, but probably related, products. Defenders invest large sums of money in technology which, in turn, improves efficiency. Moreover, they do not spend much money in R&D and marketing, and restrict their capability of developing new products. Since they do not intend to enter new markets, and rather focus on gradually penetrating a market, they manifest a slow, gradual growth and have low performance Defenders often fluctuations. possess strong centralized control systems to enhance efficient production and distribution. Finally, defenders are employed for a long time and are promoted from within (Miles and Snow, 1978 and 2003).

Vol.8 / No.30 / Summer 2023

4 / The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according ...

# 2.4. Theoretical relationship between client's business strategy and audit fee and auditor's opinion

On the strength of the risk-based auditing theory, auditors currently take into account the effect of the client's business risk on their own activities and on estimation of auditing risks (Johnstone, 2000). Following the competition theory, Bentley et al. (2013) argue that clients with prospective business strategy in competitions have low-quality accounting information since they must deal with R&D and marketing expenses; these are arbitrary items, inciting the manager to manipulate profits. Moreover, due to fluctuations in their financial performance, clients with prospective business strategy are more inclined to manipulate accounting information, thereby offsetting their performance fluctuations. This being the case, it can be theoretically argued that auditing risk for clients with prospective business strategy is more than that of other clients, and consequently, the audit fee and the probability of issuing a modified (unqualified) opinion for these clients are higher than others. Given the above theoretical reasoning, the conceptual model of the present research, indicating the relationship between the research variables, is as follows:



Fig.1: Research conceptual model

### 2.5. Literature review 2.5.1. English references

Olson et al. (2021) studied business strategy and digital marketing management. Since the Internet has made remarkable changes in the business world by creating a comprehensive set of digital marketing strategies, marketing managers require new, dexterous alternatives so as to prioritize objectives and invest in digital marketing strategies. Therefore, Olson et al. considered the above issue according to four business strategies (prospectors, defenders, analyzers, and reactors), with the aim of providing managers with the necessary insight into the efficient and effective implementation of the strategy approved by the firm.

Zhang et al. (2019) investigated whether corporate innovation characteristics (such as complexity, efficiency, or obsolescence) are associated with audit fees. The results showed that corporate innovation complexity has a significant, positive relationship with audit fees although auditors do not ask for higher fees from clients with higher R&D costs. Clients capable of changing R&D inputs into innovative outputs with higher efficiency pay lower audit fees. Furthermore, clients with older patent portfolio pay higher audit fees.

Acar et al. (2019) studied the effect of auditor characteristics on audit fees. The findings indicated that certain auditor characteristics have significant effects on audit fees. In other words, there is a significant, positive relationship between audit fees and international linkage of auditor firm, and there is a significant, negative relationship between audit fees and audit tenure.

In their research "Audit Opinions: Are They Really Different for Family Businesses?", Rivo-Lopez et al. (2019) posed a dual research question: (1) What are the determinants of audit opinion in a stressed

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economic environment? and (2) Are they the same in family and non-family businesses? The results showed that auditor tenure and return on assets (ROA) increase the probability of receiving an unmodified opinion. In contrast, previous year's losses, high financial leverage, and hiring a big audit firm increase the probability of receiving a modified opinion. They also found that the extent of such effects differs among family and non-family businesses. Finally, as the economic status of the firm improves, the probability of receiving an unmodified opinion in the auditor's report is increased.

Habib et al. (2019) surveyed the relationship between audit fees and the presence of "problem" directors (those in charge of affairs at the time of failures) in the firm's board of directors and audit committees. The results showed that auditors regard the presence of such directors in the board of directors and audit committees as an audit risk; the need for audit procedures is therefore enhanced, leading to higher audit fees.

Ji et al. (2018) investigated the relationship between internal control risk and audit fees, and revealed that audit fees have a significant, positive relationship with disclosed internal control weaknesses. In particular, these fees are associated with internal control weaknesses related to nonfinancial reporting, not with internal control weaknesses related to financial reporting. They also indicated that voluntary assurance in internal control reports can reduce higher audit fees related to internal control weaknesses. Moreover, their study provides adequate evidence on whether the scope of internal controls should be expanded to the areas of nonfinancial reporting.

Sukma et al. (2018) investigated the effect of size, profitability, risk, complexity, and independent audit committee on audit fee, indicating that the firm's size, profitability, and complexity have a significant, positive effect on audit fee, while risk and independent audit committee do not affect audit fees.

Yen et al. (2018) studied the impact of audit firms' characteristics on audit fees following information security breaches. The results showed that audit fees are higher after the occurrence of an information security breach. However, if the audit firm has the intended professional expertise, has long-term cooperation with the client, and is one of the Big 4 firms, this relationship is negatively moderated.

#### International Journal of Finance and Managerial Accounting / 5

According to their results, due to the auditors' vast knowledge of that specific area, familiarity with the client's operations, and possession of more resources to understand vulnerabilities and/or information security policies and procedures of the firm, these auditors are more capable of assessing changeable information security risks imposed due to the occurrence of information security breaches.

In their research "Business Strategy and Auditor Reporting", Chen et al. (2017) directly investigated the effects of business strategy on auditor reporting, and concluded that firms with prospective (innovative) strategy, compared to those with defensive strategy (cost leadership), are more likely to receive both going-concern and material weakness opinions. Finally, their findings showed that the business strategy is a considerable determinant in reporting on both going-concern and material weakness.

Bentley et al. (2017) investigated in their research whether a firm's business strategy is an underlying determinant to show the strength of its internal controls over financial reporting and auditors' internal control reporting quality. The results indicated that firms with characteristics close to the prospective strategy are more likely to report and less likely to resolve material weaknesses, gradually increasing the determinants of material weaknesses. Moreover, auditors' internal control reporting has a low quality for clients with characteristics close to the prospective strategy when assessed using timely reports on material weaknesses. The results showed that business strategy is a precise indicator used to evaluate the strength of a firm's internal controls, suggesting that internal control reporting is considered an important area to improve audit quality for clients with prospective strategies.

Wang and Chui (2015) studied the relationship between audit fee and competitiveness of American firms, suggesting that audit fee in competitive industries is more than others. At the level of firms, they found that firms more competitive than others pay less audit fees. In other words, the higher the competitiveness of a firm, the less the audit fee.

Tsipouridou and Spathis (2014) examined the relationship between auditor's opinion and earnings management as a basis for discretionary accruals, for firms listed in Athens Stock Exchange. The results showed that earnings management has no relationship with auditor's opinions, and clients' financial

Vol.8 / No.30 / Summer 2023

6 / The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according ...

characteristics and size are the determinants of auditors' decisions on going-concern.

Eshleman and Guo (2014) investigated the relationship between abnormal audit fees and earnings quality, presenting new evidence on the relationship between audit fees and earnings quality based on the likelihood of using analyzers' discretionary accruals. This research indicated that abnormal audit fees have a positive effect on audit quality, reflecting concerns on the fact that lower audit fees may lead to lower auditor efforts. Their results showed that there is a negative relationship between audit fees and managers' likelihood of using discretionary accruals for earnings quality.

In their research "Business Strategy, Financial Reporting Irregularities, and Audit Effort", Bentley et al. (2013) investigated whether firms with different business strategies behave differently when encountering financial reporting irregularities and whether the firms' various business strategies can be a determinant of audit efforts required to validate their financial statements. The results showed that prospectors have higher financial reporting irregularity risk and are more involved in it. Auditors also receive higher fees from prospective firms compared to defensive ones.

Griffin and Lont (2011) demonstrated in their research that audit fee has a significant relationship with factors such as the type of audit report, auditor change, type of industry, current ratio, number of departments in a business unit, and client size.

Chang and Choy (2010) examined the effect of audit partner characteristics on audit opinions, and found that auditor's work experience and familiarity with industry of the intended firm are the main factors affecting the reduction of errors in audit opinions. The results generally showed that characteristics such as auditor's independency, work experience, tenure of the intended unit, and familiarity with industry of the intended firm affect the auditor's opinion.

### 2.5.2. Persian references

Tutian Esfahani and Najafi (2020) examined the effect of prospective and defensive strategies on financial distress in firms listed in Tehran Stock Exchange. The results indicated that there is a significant, positive relationship between business strategy and financial distress, i.e. financial distress is higher in prospective firms and lower in defensive ones. In her research "Business Strategy, Materiality Weaknesses of Internal Controls, and Audit Report Delay", Hajiha (2019) empirically examined the organizational theory on 127 firms listed in Tehran Stock Exchange in the period 2012-2015. The results indicated that clients with prospective business strategy have materiality weakness of internal controls in audit reports; defensive clients, however, have lower materiality weakness of internal controls. Nevertheless, prospectors have fewer audit report delays than defenders.

In their research "Audit Services Pricing and Competition Theory", Banimahd and Nayebzadeh (2018) examined the audit services pricing in private audit firms based on competition theory, and concluded that there is a significant relationship between audit fee, client's competitive power, client size, debt ratio, and sales growth.

Mehrabanpour, Jandaghi Ghomi, and Rajabbeyki (2018) investigated social capital and audit fee. The results suggested that through creation of trust, tendency to cooperate, and establishment of collective actions to achieve social and economic synergies, social capital has led to economic behaviors oriented toward collective goals and interests and avoidance of opportunistic behaviors in businesses; this significantly reduces the audit fees.

Jabarzadeh and Damirchi (2017) examined the effect of corporate ownership type on the relationship between earnings management and audit fee in firms listed in Tehran Stock Exchange. The findings indicated that earnings management variable (discretionary accruals) does not affect clients' audit fees, while in private firms with majority ownership, audit fees are extremely low despite the high level of earnings management in terms of different criteria. Moreover, corporate ownership type and investment opportunities have a significant, negative effect on audit fees, whereas client size has a significant, positive effect on audit fees.

Banimahd, Hasas Yeganeh, and Yazdanian (2014) investigated the relationship between earnings management and auditors' opinion in the private sector, demonstrating that earnings management, client size, profitability, debt ratio, audit fee, and government ownership have a significant relationship with the number of audit paragraphs inserted prior to the opinion paragraph. The results also indicated that firm complication, auditor change, and management change

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### International Journal of Finance and Managerial Accounting / 7

have no significant relationship with the number of audit paragraphs inserted prior to the opinion paragraph. The findings emphasize that direct relationship between earnings management and the number of audit paragraphs may result from enhanced audit quality in the private sector.

Soltanian, Moradi, and Jabari (2014) investigated the relationship between abnormal audit fees and audit quality, suggesting that generally, there is no significant relationship between abnormal audit fees and audit quality; specifically, however, if abnormal fees are divided into two groups of abnormal fees with positive and those with negative signs, a significant direct relationship is confirmed between abnormal audit fees with a positive sign and audit quality.

Faraji Amiri, Hashemi, and Aminimehr (2014) studied the effect of independent audit fee competition on audit quality and financial reporting in the private and public sectors, suggesting that there is a significant relationship between audit fee and audit quality, financial reporting quality, audit time, auditor's experience, number of auditors, compromising with managers, and the agency role of managers.

Badavar Nahandi, Derakhshi, and Shirmohammadlu (2014) examined the effect of client size and client industry-specific expertise on audit fees of firms listed in Tehran Stock Exchange, and indicated that client size and client industry-specific expertise have positive effect on audit fees.

Amirazad, Zeinali, and Shahi (2014) surveyed the effect of corporate governance mechanisms on auditor choice for firms listed in Tehran Stock Exchange. The results showed that none of corporate governance variables (percentage of institutional shareholders, free floating stock, board size, structure of board of directors, managers' ownership, and CEO duality) affects auditor choice. In other words, corporate governance mechanisms reduce influences on auditor choice.

In their research "Effect of Audit Fee on Audit Opinion", Banimahd, Moradzadehfard, and Zeinali (2012) examined the effect of audit fee on issuance of qualified opinion. The results demonstrated that there is a significant relationship between audit fee, client size, client's loss report, and firm age *and* issuance of qualified opinion.

Malekian, Ahmadpour, and Talebtabar (2012) examined the relationship between some corporate governance mechanisms, audit fees, and level of ownership in firms listed in Tehran Stock Exchange. The results suggested that regarding the relationship between some corporate governance mechanisms and audit fees, there is a negative relationship between audit fees and percentage of non-executive board members, and a positive relationship between CEO duality and audit fee in firms listed in Tehran Stock Exchange. Moreover, the relationship between CEO duality and audit fee is strengthened for firms with dispersed ownership.

Banimahd (2011) investigated the factors affecting the issuance of a qualified audit opinion, indicating that issuance of such opinion is more influenced by factors such as manager's performance, ownership change, audit privacy, auditor choice, changing the auditor from a private firm to another, and client size. Moreover, all mentioned variables, except for client size, have a direct relationship with the probability of issuing a qualified audit opinion.

Nikbakht and Tanani (2010) tested the factors influencing audit fees and found that variables such as firm's operation volume (size), complexity of operations, type of audit firm, and inflation have a significant relationship with audit fees; however, variables such as auditing risk and financial statement preparer's education and experience do not have any statistical relationship with the dependent variable (audit fee).

### 3. Research hypotheses posited

Given the theoretical argument of the present research concerning the relationship between client's business strategy and audit fee and auditor's opinion, mentioned previously, the following research hypotheses are posited:

- 1) "Audit fee of financial statements, ceteris paribus, is higher for firms with a prospective business strategy than others".
- 2) "Probability of issuing a modified (unqualified) opinion by the independent auditor, ceteris paribus, is greater for firms with a prospective business strategy than others".

### 4. Methodology

This is an applied study in terms of purpose since its results can be exploited by legislators of accounting (including the Audit Organization of Iran and the

Vol.8 / No.30 / Summer 2023

8 / The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according ...

Securities and Exchange Organization of Tehran). It is also a descriptive-correlational study. In this research, documents belonging to the statistical population, including their financial statements (basic financial statements and explanatory notes) are used to collect data. It should be mentioned that the data are extracted from Tehran Stock Exchange website and Codal.ir website.

### 4.1. Statistical population and sample

This research used the systematic removal method of sampling, by which the sample was selected from the statistical population (all firms listed in Tehran Stock Exchange up to 2018) according to the following criteria. Among all firms, only 75 met all mentioned criteria; they were therefore used as the sample of the present research.

The criteria against which the sample was selected from the statistical population are as follows:

- Firms listed in Tehran Stock Exchange in the period 2006-2018; since some research variables are measured by the rolling method, the effectual time period (the time interval used to estimate the research regression models) is 2010-2018 (9 years).
- 2) Firms whose fiscal year ends on March 20th;
- Firms that are not a leasing company and financial intermediary;
- 4) Firms whose information is accessible for the time period of the research (2006-2018).

Firms that are not qualified are systematically removed, i.e. they are not selected as the sample.

### 4.2. Research models and variables

In this research, multiple linear regression (least squares method) and binary-logistic regression were used to conduct experimental tests. Due to the quantitative and continuous nature of the dependent variable (audit fee), multiple linear regression was used to test the first hypothesis. Equ.1 shows the multiple linear regression used to test the first research hypothesis, where  $\beta_1$  denotes the effect of the artificial variable (client's prospective business strategy) on audit fees. After the model estimation, in case  $\beta_1$  is

positive and significant, a direct effect by the independent variable (client's prospective business strategy) on audit fees is revealed, and the first hypothesis is thus confirmed. Due to the two-sided (artificial) nature of the dependent variable of this hypothesis (independent auditor's modified opinion) as well as the abnormal distribution of data related to the dependent variable of this hypothesis, the binarylogistic regression was used to test the second hypothesis. Equ.2 shows the binary-logistic regression used to test the second research hypothesis, where  $\beta_1$ denotes the effect of the artificial variable (client's prospective business strategy) on the independent auditor's modified opinion. After the model estimation, in case  $\beta_1$  is positive and significant, a direct effect by the independent variable (client's prospective business strategy) on probability of issuing a modified opinion by the independent auditor is revealed, and the second hypothesis is thus confirmed. Equ.1:

$$\begin{split} AFEE_{i,t} &= \beta_0 + \beta_1 STR_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 ROA_{i,t} + \\ \beta_4 LEV_{i,t} + \beta_5 CURR_{i,t} + \beta_6 OCF_{i,t} + \beta_7 SG_{i,t} + \\ \beta_8 RECINV_{i,t} + \beta_9 DED_{i,t} + \beta_{10} CASH_{i,t} + \beta_{11} MB_{i,t} + \\ \beta_{12} AGE_{i,t} + \beta_{13} BIGN_{i,t} + \beta_{14} LOSS_{i,t} + \epsilon_{i,t} \end{split}$$

### Equ.2:

$$\begin{split} &OPN_{i,t} = \beta_0 + \beta_1 STR_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 ROA_{i,t} + \beta_4 LEV_{i,t} \\ &+ \beta_5 CURR_{i,t} + \beta_6 OCF_{i,t} + \beta_7 SG_{i,t} + \beta_8 RECINV_{i,t} + \\ &\beta_9 CASH_{i,t} + \beta_{10} CFVOL_{i,t} + \beta_{11} SALEVOL_{i,t} + \beta_{12} DED_{i,t} \\ &+ \beta_{13} MB_{i,t} + \beta_{14} AGE_{i,t} + \beta_{15} BIGN_{i,t} + \beta_{16} LOSS_{i,t} + \epsilon_{i,t} \end{split}$$

## **4.3. Research variables and their method of measurement**

In the present research, classifications and operational definitions of variables (their method of measurement) are as shown in Table 1.

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International Journal of Finance and Managerial Accounting / 9

Variable	Symbol	Type of variable	- Operational definition
Audit fee	AFEE	Dependent	It is the natural logarithm of client's audit fee in the current period.
Auditor's modified opinion	OPN	Dependent	It is an artificial variable with a value of 1 and 0, where 1 denotes an unqualified (modified) opinion, and 0 a qualified opinion.
Client's business strategy	STR	Independent	Ittner et al.'s rating approach (1997) is used to measure this variable.
Sales growth	SG	Control	It is obtained by deducing the previous sales from the current sales, divided by the previous sales.
Cash flow fluctuation	CFVOL	Control	It is the standard deviation of the firm's operating cash flow during the last three years, divided by the book value of the total assets in the current year.
Sales fluctuation	SALEVOL	Control	It is the standard deviation of the firm's sales during the last three years, divided by the book value of the total assets in the current year.
Inventory ratio	RECINV	Control	It is the ratio of inventories to total assets.
Dummy variable of net loss	LOSS	Control	1, if the firm is experiencing loss in the current period; 0, if otherwise.
Ownership concentration	DED	Control	It is the percentage of shares owned by majority shareholders.
Firm size	SIZE	Control	It is the natural logarithm of the book value of the firm's assets.
Cash ratio	CASH	Control	It is the ratio of cash to total assets.
Debt ratio	LEV	Control	It is the ratio of the book value of total debts to that of total assets.
Return on assets	ROA	Control	It is the ratio of net profit to book value of total assets.
Operating cash flows	OCF	Control	It is the ratio of operating cash flow to book value of total assets.
Current ratio	CURR	Control	It is the ratio of current assets to total current debts.
Firm's growth opportunities	MB	Control	It is the ratio of total stock market capitalization to book value of equities.
Firm age	AGE	Control	It is the natural logarithm of the total years the firm is operating since its foundation.
Dummy variable of auditor type	BIGN	Control	1, if the auditor is the Audit Organization of Iran or Mofid Rahbar Audit Firm; 0, if otherwise.

### Table 1: Classifications and operational definitions of the research variables

# 4.3.1. Ittner et al.'s approach (1997) to distinguish the client's business strategy

To operationalize the client's strategy variable, five variables are used according to Ittner et al.'s approach (1997), including: the average rate of sales growth during the last 5 years, the employees' average per capita income during the last 5 years, the average ratio of market capitalization to book value during the last 5 years, the average ratio of operational expense to firm's sales during the last 5 years, and the average ratio of fixed assets to total assets during the last 5 years. After measuring the above variables for the research firm-years, observations are sorted from smallest to biggest. Observations of each variable are then divided into 5 groups. For the first four parameters (the average rate of sales growth during the last 5 years, the employees' average per capita income during the last 5 years, the average ratio of market capitalization to book value during the last 5 years, and the average ratio of operational expense to firm's sales during the last 5 years), observations in the first quintile have a strategy score of 1; the second quintile a score of 2; the third quintile a score of 3; the fourth quintile a score of 4; and the fifth quintile a score of 5.

Regarding the fifth parameter (the average ratio of fixed assets to total assets during the last 5 years), observations in the first quintile have a strategy score of 5; the second quintile a score of 4; the third quintile a score of 3; the fourth quintile a score of 2; and the fifth quintile a score of 1.

After the rating, strategy scores of each of the above variables for each sample firm during the research time period are added linearly.

Maximum final score for each client strategy is 25 and the minimum is 5. Clients with a strategy score greater than 15 are considered as prospectors and their STR variable is equal to 1; STR variable for clients with a strategy score less than 15 is equal to 0 (Ittner et al., 1997).

### 5. Results

### **5.1.** Descriptive statistics

In this section, descriptive statistics for the following cases are presented: research variables; mean comparison test for the audit fee variable; correlation

Archive of SID.ir

**10 /** The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according ...

matrix for variables; stationary of variables; and normality of the dependent variable. Table 2 (the descriptive statistics) indicates the most important central indices and measures of dispersion including mean, median, maximum value, minimum value, coefficient of skewness, coefficient of kurtosis, standard deviation, and number of observations related to research variables. According to Table 2, mean of the artificial variables is indicative of percentage frequency of variables. In Table 2, mean of the artificial variable "auditor's modified (unqualified) opinion (OPN)" shows that an average of 51% of clients received a modified (unqualified) opinion by their auditor during the research time period (2010-2018). Mean of the artificial variable "client's business strategy (STR)" shows that an average of 72% of clients used the prospective business strategy during the research time period. Mean of the artificial variable "net loss (LOSS)" shows that an average of 12% of clients sustained net loss. Mean of the variable "return on assets (ROA)" shows that the net profit of sample firms during the research time period (2010-2018) is, on average, equal to 11% of book value of total assets. Mean of the variable "debt ratio (LEV)" shows that the book value of firms' debts is, on average, equal to 58% of book value of their total assets. Mean of the variable "growth opportunities (MB)" shows that stock market capitalization of sample firms is, on average, 2.55 times the book value of their equities. Mean of the ratio of cash to total assets (CASH) shows that cash amount of sample firms is, on average, equal to 4% of book value of their total assets. Mean of the ratio of operating cash flow to total assets (OCF) shows that operating cash flow of sample firms is, on average, equal to 12% of book value of their total assets. Mean of the sales growth rate (SG) shows that periodical sales growth of sample firms is, on average, equal to 22%. Mean of the variable "current ratio (CURR)" shows that the book value of firms' current assets is, on average, 1.62 times the book value of their current debts. Maximum value of the variable "debt ratio (LEV)" is 2.07, pertaining to Iran Combine Manufacturing Company in 2012, which demonstrates that the company was bankrupted and the book value of its debts was double the book value of its assets. Minimum value of the variable "growth opportunities (MB)" is -49, pertaining to Doodeh Sanati Pars Company in 2017, which is negative due to its bankruptcy and negativity of book value of its equities (ratio of stock market capitalization to book value of equities).

Variable	Symbol	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Observations
Natural logarithm of client's audit fee	AFEE	6.628	6.630	8.850	2.930	0.780	-0.051	3.295	675
Artificial variable "auditor's modified opinion"	OPN	0.510	1.000	1.000	0.000	0.500	-0.039	1.001	675
Artificial variable "client's prospective strategy"	STR	0.721	1.000	1.000	0.000	0.449	-0.988	1.976	675
Size of firm i at period t	SIZE	13.523	13.654	16.240	10.031	1.123	-0.317	2.883	675
ROA of firm i at period t	ROA	0.112	0.097	0.627	-0.370	0.135	0.480	4.493	675
Debt ratio of firm i at period t	LEV	0.585	0.586	2.078	0.061	0.226	1.242	5.455	675
Growth opportunities of firm i at period t	MB	2.557	2.145	49.704	-49.704	4.267	-1.398	6.802	675
Current ratio of firm i at period t	CURR	1.622	1.294	13.151	0.223	1.317	4.443	3.299	675
Ratio of inventories and receivables to total assets	RECINV	0.500	0.500	0.94	0.02	0.206	-0.144	2.145	675
Ratio of cash amount to total assets	CASH	0.042	0.027	0.461	0.000	0.049	3.161	5.646	675
Operating cash flow of firm i at period t	OCF	0.121	0.107	0.642	-0.460	0.135	0.442	4.681	675
Sales growth rate of firm i at period t	SG	0.225	0.150	6.560	-0.830	0.509	4.110	5.788	675
Sales fluctuation of firm i at period t	SALEVOL	1.230	0.184	84.464	0.010	6.405	4.463	4.396	675
Operating cash flow fluctuation of firm i at period t	CFVOL	0.299	0.072	15.524	0.003	1.347	4.023	5.869	675

Т	able	2:	Descri	ptive	statistics	of	research	variables
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Vol.8 / No.30 / Summer 2023

International Journal of Finance and Managerial Accounting	1 /	1	
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Variable	Symbol	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Observations
Majority ownership of firm i at period t	DED	0.575	1.000	1.000	0.000	0.495	-0.303	1.092	675
Age of firm i at period t	AGE	3.562	3.689	4.205	2.079	0.413	-0.822	2.938	675
Auditor type of firm i at period t	BIGN	0.221	0.000	1.000	0.000	0.415	1.347	2.813	675
Loss-making of firm i at period t	LOSS	0.120	0.000	1.000	0.000	0.325	2.339	6.470	675
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\* Source: Researcher's findings

Table 3 presents independent t-test and Mann-Whitney U test results to compare the mean of audit fee and the artificial variable of auditor's modified opinion in firms with prospective and defensive business strategies.

As can be seen, significance level of independent t-test is 0.00, which is less than 0.10, 0.05, and 0.01 levels. The results indicate that there is a significant difference between means of audit fees in firms with prospective and defensive business strategies. These results support the research theoretical argument, suggesting that audit fee of prospectors is higher than that of defenders.

Mann-Whitney U test results also indicate that the probability of issuing a modified (unqualified) opinion by the independent auditor is stronger for financial statements of firms with prospective business strategy than those with defensive one.

 Table 3: Mean comparison test for independent

 variables (audit fee and auditor's modified opinion)

Test	Variable	Test Statistic	Significance level	Result
Independent T	AFEE	-4.76	0.00	Mean difference is significant.
Mann- Whitney U	OPN	39.30	0.00	Mean difference is significant.

\* Source: Researcher's findings

An assumption associated with linear regression model is that there is no strong correlation among explanatory terms (dependent and control variables) in paired form (Aflatuni, 2013). As can be seen in Table 4, correlation coefficient is less than 60% for all explanatory variables (dependent and control) expressed simultaneously in a model. Therefore, no strong correlation exists among explanatory terms of the research, the assumption of non-existence of strong correlation among explanatory terms of the research models is confirmed, and these variables can be used simultaneously as explanatory variables (dependent and control) in regression models of the research.

Hadri's unit-root test is used to examine the stationary of variables. As can be seen in Table 5, significance level of Z statistic in Hadri's test is less than 5% for all research variables, suggesting that unit-root problem does not exist for any variable. Therefore, it can be declared that all variables used in regression models in the research time period are stationary (static).

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Variable	AFEE	OPN	STR	SIZE	ROA	LEV	MB	CURR	CASH
AFEE	1.000								
Sig									
OPN	0.127	1.000							
Sig	0.001								
STR	-0.079	0.100	1.000						
Sig	0.040	0.009							
SIZE	-0.179	0.264	0.100	1.000					

 Table 4: Pearson correlation matrix between research variables

Variable	AFEE	OPN	STR	SIZE	ROA	LEV	MB	CURR	CASH
Sig	0.000	0.000	0.009						
ROA	0.054	-0.202	0.264	0.108	1.000				
Sig	0.166	0.000	0.000	0.005					
LEV	0.002	0.240	-0.202	0.073	-0.591	1.000			
Sig	0.956	0.000	0.000	0.060	0.000				
MB	0.024	0.091	0.240	-0.126	0.112	-0.123	1.000		
Sig	0.528	0.018	0.000	0.001	0.004	0.001			
CURR	-0.140	0.062	0.091	-0.133	0.397	-0.589	0.014	1.000	
Sig	0.000	0.109	0.018	0.001	0.000	0.000	0.724		
CASH	-0.102	0.022	0.062	-0.031	0.071	0.125	-0.057	0.002	1.000
Sig	0.008	0.575	0.109	0.426	0.064	0.001	0.140	0.949	
OCF	-0.198	0.112	0.022	-0.163	0.220	-0.161	0.060	0.137	0.020
Sig	0.000	0.004	0.575	0.000	0.000	0.000	0.121	0.000	0.600
SG	0.079	0.122	0.112	0.101	0.454	-0.198	0.000	0.063	0.098
Sig	0.041	0.002	0.004	0.009	0.000	0.000	0.996	0.103	0.011
SALEVOL	0.073	-0.030	0.122	-0.062	0.222	-0.070	0.067	0.110	0.182
Sig	0.060	0.438	0.002	0.109	0.000	0.071	0.082	0.004	0.000
CFVOL	0.070	-0.018	-0.030	-0.295	-0.027	-0.020	-0.006	0.014	0.034
Sig	0.068	0.644	0.438	0.000	0.493	0.601	0.886	0.718	0.385
DED	-0.004	0.017	-0.018	-0.301	-0.039	0.002	0.018	-0.008	0.004
Sig	0.911	0.653	0.644	0.000	0.311	0.966	0.641	0.839	0.909
AGE	0.080	0.104	0.017	0.048	0.006	0.098	-0.008	-0.087	-0.051
Sig	0.038	0.007	0.653	0.211	0.882	0.011	0.832	0.024	0.187
BIGN	-0.079	0.066	0.104	0.049	0.040	-0.248	0.054	0.196	-0.072
Sig	0.041	0.089	0.007	0.206	0.303	0.000	0.161	0.000	0.063
LOSS	0.118	-0.174	0.066	0.118	0.047	0.127	0.071	-0.155	0.065
Sig	0.002	0.000	0.089	0.002	0.228	0.001	0.066	0.000	0.094

<b>12 /</b> The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according	
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	Continuation of Table 4:										
Variable	OCF	SG	SALEVO L	CFVOL	DED	AGE	BIGN	LOSS			
OCF	1.000										
Sig											
SG	0.039	1.000									
Sig	0.309										
SALEVOL	-0.021	-0.039	1.000								
Sig	0.595	0.312									
CFVOL	-0.041	-0.036	0.507	1.000							
Sig	0.290	0.357	0.000								
DED	0.009	0.002	0.056	0.059	1.000						
Sig	0.821	0.963	0.148	0.128							
AGE	-0.067	0.066	-0.016	-0.022	0.045	1.000					
Sig	0.083	0.086	0.683	0.574	0.244						
BIGN	0.023	0.001	-0.049	-0.016	0.116	0.048	1.000				
Sig	0.550	0.976	0.201	0.672	0.003	0.211					
LOSS	-0.196	-0.113	0.014	0.024	0.017	-0.023	-0.104	1.000			
Sig	0.000	0.003	0.714	0.538	0.665	0.555	0.007				
	•	* Sou	rce: Researc	her's findin	gs						

Vol.8 / No.30 / Summer 2023

International Journal of Finance and Managerial Accounting / 13

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Variable	Symbol	Z-Statistic	Sig	Compared to 5%	Result
Natural logarithm of client's audit fee	AFEE	14.57	0.000	Less than 5%	The variable is stationary
Artificial variable "auditor's modified opinion"	OPN	5.24	0.000	Less than 5%	The variable is stationary
Artificial variable "client's prospective strategy"	STR	7.34	0.000	Less than 5%	The variable is stationary
Size of firm i at period t	SIZE	14.76	0.000	Less than 5%	The variable is stationary
ROA of firm i at period t	ROA	5.93	0.000	Less than 5%	The variable is stationary
Debt ratio of firm i at period t	LEV	11.04	0.000	Less than 5%	The variable is stationary
Growth opportunities of firm i at period t	MB	10.34	0.000	Less than 5%	The variable is stationary
Current ratio of firm i at period t	CURR	7.95	0.000	Less than 5%	The variable is stationary
Ratio of inventories and receivables to total assets	RECINV	10.38	0.000	Less than 5%	The variable is stationary
Ratio of cash amount to total assets	CASH	4.52	0.000	Less than 5%	The variable is stationary
Operating cash flow of firm i at period t	OCF	7.33	0.000	Less than 5%	The variable is stationary
Sales growth rate of firm i at period t	SG	6.71	0.000	Less than 5%	The variable is stationary
Sales fluctuation of firm i at period t	SALEVOL	11.43	0.000	Less than 5%	The variable is stationary
Operating cash flow fluctuation of firm i at period t	CFVOL	11.54	0.000	Less than 5%	The variable is stationary
Majority ownership of firm i at period t	DED	9.37	0.000	Less than 5%	The variable is stationary
Age of firm i at period t	AGE	15.25	0.000	Less than 5%	The variable is stationary
Auditor type of firm i at period t	BIGN	3.79	0.000	Less than 5%	The variable is stationary
Loss-making of firm i at period t	LOSS	4.31	0.000	Less than 5%	The variable is stationary

Table 5: Examine the stationary of variables (Hadri's unit-root test)

\* Source: Researcher's findings

Jarque-Bera test is used to examine the normality of data associated with dependent variables. As can be seen in Table 6, significance level of Jarque-Bera statistic is less than 5% for the dependent variable "auditor's modified (unqualified) opinion (OPN)". The

results indicate that distribution of data associated with auditor's modified (unqualified) opinion (OPN) is not normal. Therefore, the model used to test the second research hypothesis is estimated by binary-logistic method.

Variable	Symbol	Jarque-Bera Statistic	Significance level	Compared to 5%	Result
Natural logarithm of client's audit fee	AFEE	2.73	0.25	More than 5%	It is normal
Artificial variable "auditor's modified opinion"	OPN	112	0.00	Less than 5%	It is not normal
د	C D.	1 1 6 1			

\* Source: Researcher's findings

### 6. Inferential statistics

## **6.1. Examining the effect of prospective business strategy on audit fee**

F-Limer test results show that significance level of F statistic for Model 1 is less than 5%. Significance level of Hausman test chi-square for Model 1 is also less than 5%. Therefore, the best approach to estimate Model 1 is the panel-fixed effects approach. Table 7 presents Model 1 estimation with panel-fixed effects approach. Significance level of Jarque-Bera statistic for the estimated model is less than 5%, suggesting that distribution of model residuals is not normal. Nevertheless, this does not disprove the model

estimation results given the adequate number of observations (675 firm-years) and the central limit theorem of residual abnormalities. Furthermore, due to variance mismatch in residuals, Model 1 is corrected using White method. Durbin-Watson statistic for the estimated model is 1.5-2.5, indicating that errors of the estimated model are independent of each other. Significance level of Fisher's F-test for the estimated model is 0.00 (less than 0.05), signifying that the estimated model is (linearly) significant. As can be seen in Table 7, significance level of T statistic (P-value) for the independent variable "prospective business strategy (STR)" is 0.004, which is at significance levels of 0.05 and 0.10 (P-value<0.10). It

Vol.8 / No.30 / Summer 2023

### 14 / The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according ...

can be thus implied that the independent variable "prospective business strategy (STR)" has a significant, positive relationship with the dependent variable "natural logarithm of audit fee (AFEE)". In other words, companies with prospective business strategies need more attention, which increases the scope of independent auditors and increases the audit fee. These findings demonstrate the confirmation of the first research hypothesis, i.e. the use of prospective business strategy increases the independent auditor's fee (client's financial statement audit fee).

Variable	Symbol	Coefficient	Std. Error	T- Statistic	Significance level	Compared to 10%	Result		
y-intercept	(a)	0.731	0.329	2.224	0.026				
Prospective business strategy	STR	0.159	0.039	4.087	0.000	Less than 10%	It affects.		
Client size	SIZE	0.426	0.019	22.719	0.000	Less than 10%	It affects.		
ROA	ROA	-1.086	0.237	-4.587	0.000	Less than 10%	It affects.		
Ratio of debt to total assets	LEV	-0.381	0.143	-2.656	0.008	Less than 10%	It affects.		
Current ratio	CURR	-0.036	0.009	-3.950	0.000	Less than 10%	It affects.		
Ratio of operating cash flow to total assets	OCF	0.245	0.106	2.313	0.021	Less than 10%	It affects.		
Sales growth rate	SG	0.043	0.055	0.780	0.436	More than 10%	Does not affect.		
Ratio of sum of receivables and inventories to total assets	RECINV	0.162	0.016	10.039	0.000	Less than 10%	It affects.		
Majority ownership (ownership concentration)	DED	-0.084	0.019	-4.377	0.000	Less than 10%	It affects.		
Ratio of cash amount to total assets	CASH	0.442	0.511	0.864	0.388	More than 10%	Does not affect.		
Firm's growth opportunities	MB	0.005	0.006	0.851	0.395	More than 10%	Does not affect.		
Firm age	AGE	0.028	0.034	0.841	0.401	More than 10%	Does not affect.		
Type of auditor	BIGN	0.637	0.037	17.047	0.000	Less than 10%	It affects.		
Artificial variable of loss-making of firm	LOSS	-0.064	0.036	-1.774	0.076	Less than 10%	It affects.		
F-Limer statistic (significance level)	F (PROB)	604 (0.000)	Panel approach is the best for model estimation.						
Hausman test chi-square (significance level)	F (PROB)	116 (0.000)	Fixed-effects approach is the best for model estimation.						
Durbin-Watson statistic	DW-stat	1.8	Premise of independency of errors is confirmed since Durbin-Watson statistic is obtained as 1.5-2.5.						
Model's coefficient of determination	$\mathbb{R}^2$	0.70	Seventy percent of changes in dependent variable is expressed by significant explanatory variables (independent and control).						
Fisher statistic	F-stat	112	Model's significance is accepted at this level.						
Model's significance level	P-Value	0.000	Premise of model significance is confirmed, suggesting that the model is linear since significance level of Fisher statistic is less than 5%.						

Table 7: Estimation results obtained for Model 1 using panel-fixed effects approach/Dependent variable: AFEE

\* Source: Researcher's findings

# **6.2. Examining the effect of prospective business strategy on auditor's modified opinion**

Table 8 shows estimation results of Model 2 using binary-logistic method. As can be observed, significance level of Z statistic associated with the coefficient of the independent variable "prospective business strategy (STR)" (as 0.457) is equal to 0.020, which is less than 10% (P-value<0.10). The results indicate that the independent variable "prospective business strategy (STR)" has a significant relationship with the dependent variable "auditor's unqualified

opinion (OPN)"; the relationship is direct since the coefficient is positive, meaning that clients with prospective business strategy are more likely to receive auditor's modified (unqualified) opinion. In other words, companies with prospective business strategies often have a volatile performance in terms of sales and profitability, which leads to uncertainty in estimating the future performance of these companies, Therefore, following the risk-based auditing approach, which makes the auditors' opinion subject to the evaluation of companies' business strategy in the field of competition, Independent auditors in this area, following the concept of conservatism, limit their risks

Vol.8 / No.30 / Summer 2023

### International Journal of Finance and Managerial Accounting / 15

and express their uncertainty about the future performance of the clients by issuing modified (unqualified) opinions. Accordingly, the second research hypothesis — probability of issuing a

modified (unqualified) opinion by the independent auditor, ceteris paribus, is greater for firms with a prospective business strategy than others — is confirmed.

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Variable	Symbol	Coefficient	Std. Error	Z-Statistic	Sig	Compared to 10%	Result	
y-intercept	(a)	0.089	1.431	0.062	0.950			
Prospective business strategy	STR	0.457	0.196	2.330	0.020	Less than 10%	It affects.	
Client size	SIZE	-0.017	0.084	-0.208	0.836	More than 10%	Does not affect.	
ROA	ROA	-2.259	1.072	-2.107	0.035	Less than 10%	It affects.	
Ratio of debt to total assets	LEV	0.362	0.614	0.589	0.556	More than 10%	Does not affect.	
Current ratio	CURR	0.160	0.091	1.751	0.080	Less than 10%	It affects.	
Ratio of operating cash flow to total assets	OCF	-1.540	0.729	-2.112	0.035	Less than 10%	It affects.	
Sales growth rate	SG	0.996	0.255	3.907	0.000	Less than 10%	It affects.	
Ratio of sum of receivables and inventories to total assets	RECINV	-0.738	0.189	-3.907	0.000	Less than 10%	It affects.	
Ratio of cash amount to total assets	CASH	-4.081	1.943	-2.100	0.036	Less than 10%	It affects.	
Cash flow fluctuation	CFVOL	-0.008	0.154	-0.050	0.960	More than 10%	Does not affect.	
Sales fluctuation	SALEVOL	0.030	0.033	0.905	0.365	More than 10%	Does not affect.	
Majority ownership (ownership concentration)	DED	-0.024	0.170	-0.141	0.888	More than 10%	Does not affect.	
Firm's growth opportunities	MB	0.016	0.020	0.806	0.420	More than 10%	Does not affect.	
Firm age	AGE	0.349	0.217	1.610	0.107	More than 10%	Does not affect.	
Type of auditor	BIGN	-0.344	0.209	-1.650	0.099	Less than 10%	It affects.	
Artificial variable of loss-making of firm	LOSS	0.283	0.318	0.891	0.373	More than 10%	Does not affect.	
Model's coefficient of determination	$\mathbb{R}^2$	0.10	Ten percent of changes in dependent variable is expressed by significant explanatory variables (independent and control).					
<u>LR</u> statistic	LR-stat	87	Model's significance is accepted at this level.					
LR's significance level	P-Value	0.000	Premise of model significance is confirmed, suggesting that the model is linear since significance level of LR statistic is less than 5%.					

Table 8: Estimation results obtained for Model 2 using binary-logistic method/Dependent variable: OPN

\* Source: Researcher's findings

### 7. Discussion and conclusions

The present research empirically investigated the effect of prospective business strategy on audit fee and auditor's opinion in 75 firms listed in Tehran Stock Exchange (TSE) in the period 2010-2018. It examined whether the audit fee and the auditor's opinion are empirically greater for clients with prospective business strategy than other ones.

To answer the above question, the effect of independent variable "prospective business strategy" on dependent variables "audit fee" and "auditor's opinion" was examined using multiple linear regression and binary-logistic regression models.

Statistical results of testing the first research hypothesis show that independent variable

"prospective business strategy" has a direct effect on dependent variable "audit fee". According to the results of testing the first research hypothesis stating that there is a direct relationship between prospective business strategy and audit fee - it can be concluded that prospectors require more inspection, thus the independent auditors' scope of examination is broadened and their audit fee (client's agency cost) is increased. Moreover, these results indicate that Iranian independent auditors also pay attention to theoretical fundamentals of risk-based auditing in their audits; consequently, they take into account the client's type of business strategy so as to determine the scope of examination and audit fees. Findings of testing this hypothesis are not analogous to findings of Persian references since the present research empirically

Archive of SID.ir

16 / The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according ...

investigated, for the first time, the effect of client's type of business strategy on audit fee. Among English references, the present findings conform to those of Bentley et al.'s research (2013) demonstrating that clients with prospective competitive strategy have higher audit fees than others. The results of testing the first research hypothesis also conform to theoretical fundamentals related to the risk-based auditing theory.

Statistical results of testing the second research hypothesis show that the independent variable "prospective business strategy" has a direct effect on issuance of a modified (unqualified) opinion by the independent auditor. According to the results of testing the second research hypothesis — stating that there is a direct relationship between prospective business strategy and issuance of a modified (unqualified) opinion by the independent auditor — it can be concluded that prospectors' performance in sales and profitability is highly fluctuating, causing uncertainty about gauging the client's future performance. Therefore, adhering to the risk-based auditing approach in which issuance of an opinion is subject to evaluating the clients' business strategy in competitions, independent auditors restrict their risks and ventures following on conservatism, and express their uncertainty about the clients' future performance through issuing a modified (unqualified) opinion. Therefore, clients with prospective business strategy in competitions are more likely to receive a modified opinion than defenders. The results of testing this hypothesis are not analogous to those of Persian references since the present research empirically investigated, for the first time, the effect of client's type of business strategy on probability of issuing a modified opinion by the independent auditor. Among English references, the present results conform to those of Francis et al. (1999), Bentley et al. (2013), and Chen et al.'s (2017) research suggesting that prospectors, compared to defenders, are more likely to receive a modified opinion by the independent auditor. The results of testing the second research hypothesis also conform to theoretical fundamentals related to the risk-based auditing theory.

Correspondingly, the following practical recommendations are given to users of the present research findings and results:

 Given the results of testing the first research hypothesis (direct effect of prospective business strategy on financial statement audit fees), all prospective firms listed in Tehran Stock Exchange are recommended to better clarify their information for independent auditors so as to reduce audit highlights and independent auditor's level of uncertainty, thereby controlling and decreasing their agency costs.

2) Given the results of testing the second research hypothesis (direct effect of prospective business strategy on issuance of a modified opinion by the independent auditor), all prospective firms listed in Tehran Stock Exchange are recommended to submit their performance budgeting for next years and their competitive plans using manager's interpretive reports so as to mitigate the auditor's uncertainty about their future performance, thereby reducing the probability of issuing an unqualified opinion by the independent auditor. Obviously, transparency of information on marketing and R&D costs and of future performance (through presenting manager's budgeting and interpretive reports) reduce audit highlights and independent auditor's uncertainty toward client's future performance, thereby decreasing the probability of issuing an unqualified opinion by the independent auditor.

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Vol.8 / No.30 / Summer 2023

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- **18** / The Effect of Company's Business Strategy on Audit Fee and Auditor's Opinion according ...
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