

# The Effect of The Common Auditor in The Supply Chain on Corporate Tax Avoidance

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**Abstract:** A common auditor refers to a situation where a company and at least one of its major clients are audited by the same auditing firm. The main objective of this article is to address the question of whether the presence of Common auditors has an impact on tax avoidance activities within a company. It also examines how auditor industry expertise, auditor economic dependence on the client, and industry concentration affect this relationship. Using a sample of 150 companies from 2013 to 2023 and testing hypotheses with OLS regression, the study found that common auditors within a supply chain increase tax avoidance. However, while auditor industry expertise does not affect this relationship, auditor economic dependence and industry concentration weaken the positive impact of common auditors on tax avoidance. These findings enhance the understanding of the complex relationship between common auditors and clients and offer valuable insights for policymakers, standard-setters and professionals in auditing and taxation to more effectively address issues related to common auditors and tax avoidance.

**Keywords:** Common Auditor, Tax Avoidance, Auditor's Expertise, Auditor's Economic Dependence, Concentration in The Industry.

**JEL:** H26, M42.

## 1. Introduction

Common auditors occur when two companies with business relationships share the same auditor (Zhiying et al., 2023). The audit methodologies used by different institutions suggest that each institution's approach will similarly identify errors across different entities. Therefore, the discrepancies in financial statements between two companies audited by the same auditor are likely to be much smaller compared to the discrepancies between two companies audited by different auditors, because different auditors use different styles in practice (Francis et al., 2014). On one hand, the style and context of auditing can be influenced by how accepted accounting principles are interpreted. On the other hand, each auditing institution has its own rules for interpreting and applying these principles, similar to how they apply auditing standards from the same sources. Based on this, it is believed that companies with the same auditors tend to experience similar audit methods. This phenomenon is known as the "Common auditors Effect" (Chen, 2023). As a result, the procedures followed by auditing institutions lead to systematic differences in their auditing approaches, as well as in the interpretation and implementation of accounting standards (Kothari et al., 2010).

The presence of Common auditors can lead to various consequences, including: Enhanced transparency and reduced information asymmetry, improving the readability and quality of information disclosure within a company's information environment (Almaharmeh et al., 2021), Increased comparability of accounting information (Chen et al., 2020), Implementation of consistent and uniform internal controls (Chen, 2023), Potential for tax avoidance within the supply chain (Zhiying et al., 2023) and Possible impact on cost stickiness (Kai et al., 2019). Each of these factors can influence accounting profit in various ways. Exploring how Common auditors impact factors affecting accounting profit represents a unique area of study. Given the theoretical gap in Iran's economic environment considering it is a developing country, this research aims to address this issue. Specifically, this

research examines the effect of the presence of Common auditors in the supply chain on corporate tax avoidance.

Tax avoidance involves strategies to minimize the amount of taxes paid. In other words, it is the practice of exploiting legal loopholes in tax laws to reduce one's tax burden, while still adhering to the letter of the law (Hanlon & Heitzman, 2010). The impact of Common auditors on corporate tax avoidance is likely to stem from a reduction in "information asymmetry." Previous research indicates that having a Common auditor lowers information asymmetry and enhances transaction efficiency (Zhiying et al., 2023). Supply chain research suggests that the role of auditors in providing information becomes more significant when both the supplier and the customer share the same auditor. This is because it reduces information asymmetry within the supply chain (Dhaliwal et al., 2017). In the field of taxation, the presence of a Common auditor can foster financial coordination among firms by reducing informality. Specifically, Common auditors, by leveraging both public and private information gathered during audits of suppliers and their customers, are well-positioned to build strong relationships and design tax strategies beneficial to both supplier and customer groups. Moreover, having a Common auditor significantly enhances information sharing, which in turn reduces the marginal costs of tax administration across the supply chain (Zhiying et al., 2023).

This research can have contributions in several ways and add valuable insights to the existing body of knowledge in this field. **First**, it offers solid empirical evidence on how Common auditors affect the tax strategies of companies within a supply chain. This insight can enhance our understanding of the influence of Common auditors on corporate behavior and shed light on their broader impact on corporate governance mechanisms. **Secondly**, the findings of this study can guide policymakers and regulatory bodies in developing guidelines or regulations regarding auditor selection, audit practices, and auditor responsibilities. Specifically, if the results demonstrate a significant role of Common auditors in the corporate tax avoidance process, they could serve as a

foundation for practical recommendations aimed at reducing tax avoidance. This might involve improving supervision of auditors' work and optimizing audit processes. **Third**, shareholders and other stakeholders can make more informed decisions regarding their investments and interactions with companies by understanding the potential impact of Common auditors on tax strategies. **Finally**, this study contributes to the existing literature in accounting and auditing, particularly in the areas of auditing and taxation, and offers a foundation for future research.

Unlike Hu et al. (2023), which emphasizes industry expertise as a key contributor, this research uniquely finds that industry expertise does not significantly impact the auditor-tax avoidance relationship, thus expanding the discussion around boundary conditions for common auditor effects. Moreover, the results of this study align with the work of Bae, Choi, and Lee (2019), who examined auditor expertise in relation to audit pricing and suggested that economic conditions alter auditor efficiency and independence. This study contributes further by emphasizing how auditor economic dependence affects tax strategies, encouraging improvements in audit supervision and the refinement of audit processes to counter tax avoidance.

## **2. Literature Review and Hypothesis Development**

### **2.1 The concept of Common auditor and its informational role**

Common auditors occur when two companies with a business relationship use the same auditing firm. A segment of auditing literature explores the category of Common auditors, focusing on the economic behavior of client companies that share auditors. Chen (2023) has divided the studies into two categories: The first category pertains to the auditor's style, a concept derived from the research of Francis et al. (2014). They define style as a distinctive set of specific policies and procedures used to standardize audit services (Kothari et al., 2010). This method is widely used in audit institutions, contributing to the development of an auditor's personal style. In this category of literature, Francis et al. (2014)

found that companies sharing the same auditors exhibit a higher comparability of financial statements in the United States. Jiu et al. (2020) observed a similar phenomenon in a Chinese sample. The second strand of literature focuses on the information-sharing role of Common auditors. This is because auditors can easily gather substantial amounts of private client information through audit evidence collection, risk assessment, analytical procedures, substantive testing, and communication with management (Knechel et al., 2009). Therefore, there is a possibility that auditors may share this information with other clients. Previous research shows that auditors can provide valuable information in various contexts when serving different groups, including: buyers and target companies (Kai et al., 2016); analysts and public companies (Feng et al., 2020); banks and borrowers (Francis and Wang, 2021); mutual funds and public companies (Hope et al., 2020); and suppliers and customers (Dhaliwal et al., 2017).

Accordingly, this research focuses on the second role of Common auditors, that is, the special informational role of Common auditors in a supply chain. In other words, when the supplier and its customer have a Common auditor, there will be an information advantage due to access to accounting information and other information from both sides of the supply chain, which can have an effect on facilitating tax avoidance.

## **2.2 The Concept of Tax Avoidance and the mechanism of receiving Impact from Common auditors in the Supply Chain**

One of the factors that can affect the accounting profit reported by the company is the corporate tax rate (Kovermann And Wendt, 2019). One of the stakeholders that benefits from company profits is the government, which participates through tax identification, recognition, and collection. In Iran, the government imposes a fixed tax rate on legal entities, but not all company earnings are subject to tax or may be taxed at different rates. Additionally, some expenses listed in the profit and loss statement for accounting purposes may not be recognized as deductible expenses for tax purposes. Due to such differences, another tax rate is created in

practice, which is known as the effective tax rate (Dhawan et al., 2020). Logically, managers always seek to reduce the effective tax rate by using different solutions and avoid paying taxes. Regardless of whether this practice is ethical or not, the literature indicates that action towards tax avoidance is possible through the application of accounting principles, rules and standards (same source). Therefore, it can be said that tax avoidance is an attempt to reduce the taxes paid. In other words, tax avoidance is a form of using loopholes in the tax laws in order to reduce the tax paid, or in other words, it is considered a form of tax avoidance without significantly leaving the scope of the tax laws (Hanlon & Heitzman, 2010). At the same time, in Iran, neglecting the issue of taxes is one of the main obstacles in economic and social development, and today, non-compliance with tax regulations is one of the most important and challenging problems not only in Iran, but in many developed countries (Darabi And Zamani2017). There are two perspectives on how Common auditors utilize their informational advantage and its impact on the client's tax avoidance. According to the first view, a Common auditor is able to thoroughly access and verify supply chain transactions between suppliers and customers. This perspective suggests that auditors also gain a deeper understanding of any special relationships within the supply chain, which can enhance the accuracy and effectiveness of the audit (Chen et al., 2012).

Therefore, having access to such information enables the auditor to effectively assess the client's tax management strategy, reduce audit risk associated with corporate tax avoidance, and ultimately curb tax avoidance behavior. From this perspective, a Common auditor has a deterrent effect on corporate tax avoidance. Conversely, the second perspective suggests that a Common auditor might actively engage in the client's corporate tax avoidance activities. For example, to attract and retain clients, Common auditors may be motivated to expand their professional knowledge and assist clients with tax strategies. In other words, the informal network created by the Common auditor and the spillover effects of knowledge and trust created related to it will intensify

tax avoidance in companies (Zhiying et al., 2023). According to this perspective, the Common auditor has a direct impact on the company's tax avoidance. Audit literature indicates that both positive and negative effects of the Common auditor on tax avoidance are supported. As a result, we do not propose a specific direction for this effect and instead will allow the data to reveal the direction. Therefore, the first hypothesis of the study is formulated as follows:

**H1:** Common auditor in the supply chain has an effect on the company's tax avoidance.

### **2.3 The Mechanism of the Moderating Effect of Moderating Variables on the Relationship Between Common auditors and Tax Avoidance**

The impact of having a Common auditor on a client's tax avoidance might be affected by other moderating factors. Our review of the audit literature identified three such variables that could influence this effect. These three variables are explained below:

#### **2.3.1 Auditor Expertise in the Industry**

Auditors with industry Expertise gain in-depth knowledge through their audit work, enhancing their ability to understand clients' business and financial risks. This expertise enables them to identify tax issues, opportunities, and risks related to tax management, which are often the foundation of tax planning. Previous research indicates that industry- Expertise auditors can help their clients with tax avoidance strategies (McGuire et al., 2012; Wei, 2014). Since industry expert auditors analyze and review many companies in a particular industry; Therefore, they have more experience than other auditors, and hence their competence to detect significant distortions and biases in the disclosed information of clients is higher than others (Lari Dasht Bayaz And Hassanpour, 2019).

Auditors with industry expertise also bring an enhanced ability to assess intercompany transactions and financial arrangements within specific industries. This deeper understanding equips them to discern aggressive tax practices that may emerge due to industry-specific dynamics, such as transfer pricing strategies or the exploitation of tax loopholes tailored to certain business models. Their specialized knowledge further aids in scrutinizing tax shelters or deferred tax assets that are unique to particular industries, allowing them to identify and assess tax avoidance schemes more accurately. When upstream and downstream companies in a supply chain share a Common auditor with industry expertise, this auditor is better equipped to understand the detailed operations between them. The industry-expert auditor can gain insights into transactions such as back-and-forth exchanges and post-sale repurchases, as well as identify risks in activities between suppliers and their customers.

Additionally, the auditor's deep understanding of regulatory frameworks and tax codes specific to the industry enhances their ability to suggest proactive tax planning strategies. They can assist in structuring transactions in ways that minimize tax liabilities while remaining compliant with tax laws. This becomes particularly relevant when companies in the same industry face similar regulatory challenges or opportunities, allowing common auditors to leverage this knowledge across multiple. The ability to navigate complex industry-specific tax codes further empowers these auditors to tailor tax strategies, thus moderating the relationship between the common auditor and tax avoidance. Common auditors, leveraging their firm's accounting and tax expertise, can enhance their clients' tax activities by identifying opportunities for tax optimization and implementing effective tax strategies. Additionally, offering audit and tax advisory services to clients within the supply chain allows Common auditors to expand their client base and increase revenue at a relatively low cost. This potential for growth provides strong incentives for Common auditors to apply their financial and tax expertise to assist clients with tax management (Zhiying et al., 2023).

Therefore, the level of industry expertise possessed by auditors of companies within a supply chain may influence the extent to which these auditors engage in tax avoidance strategies for their clients. Based on this, the second hypothesis of the research is formulated as follows:

**H2:** Expertise of the auditor in the industry moderates the effect of Common auditor on tax avoidance.

### **2.3.2 Auditor's Economic Dependence on The Client**

The purpose of conducting an independent audit is to enhance the credibility of the owners' accounting information, making the auditor's independence and impartiality crucial. Independence, in this context, is a mindset that ensures the auditor's opinions and conclusions remain unaffected by the pressures arising from conflicts of interest (Mautz and Sharaf, 1961). One of the issues that can endanger the auditor's independence is economic dependence on a client or a group of clients. Previous research on the effects of auditors' economic dependence on clients on audit quality has shown different results (Blay & Geiger, 2013; Chi et Al., 2012 and Hossein et al., 2016).

When an auditor is economically dependent on a client or clients within the same supply chain, the potential threat to the auditor's independence is heightened. This dependency creates a situation where the auditor may prioritize maintaining favorable relationships over exercising objective judgment. If an auditor is concerned that a dispute with one client could jeopardize future engagements with another client in the same supply chain, they may be inclined to compromise their professional integrity to secure ongoing fees. Such economic ties can undermine the auditor's independence and potentially diminish the quality of the audit.

When an auditor is responsible for auditing both a company and its customers within the same supply chain, there is a potential threat to the auditor's independence due to self-interest. The auditor might worry that a conflict with the management of one

client could jeopardize future fee income from another client in the supply chain. Such economic ties can undermine the auditor's independence and potentially diminish the quality of the audit. Consequently, high levels of economic dependence from having a Common auditor across the supply chain may result in reduced professional skepticism or an increased likelihood of the auditor succumbing to management pressure during disputes. This is particularly concerning when economic ties create an environment where auditors may prioritize client retention over ethical obligations. Research indicates that auditors facing significant economic dependence often exhibit a reduction in their ability to challenge aggressive accounting practices or tax strategies proposed by management, ultimately leading to a higher probability of tax avoidance strategies being implemented without adequate scrutiny. In such cases, auditors may give in to client pressure by restricting tax practices (Zhiying et al., 2023).

Furthermore, this situation may worsen when auditors offer non-audit services, such as tax advice, to their clients within the supply chain. As a result, the economic dependence of auditors on companies in the supply chain could either strengthen or weaken these companies' actions regarding tax avoidance strategies. Based on this, the third hypothesis of the research is formulated as follows:

**H3:** The economic dependence of the auditor on the client moderates the effect of the Common auditor on tax avoidance.

### **2.3.3 The Degree of Concentration in The Industry**

Industry concentration affects a firm's bargaining power within the supply chain. For instance, if a business contract is terminated, it becomes more expensive for the customer to find a replacement supplier when the original supplier is in a concentrated and less competitive industry. In other words, a vendor operating in a more concentrated industry has greater bargaining power with its customers. Additionally, industry concentration often signals greater stability in the supply chain. When an industry is highly

concentrated, companies are more likely to maintain stable business relationships with their supply chain partners. A stable supply chain relationship enables effective cooperation and information sharing among partners, which can help companies identify tax avoidance opportunities more effectively (Cen et al., 2017).

A stable supply chain relationship enables effective cooperation and information sharing among partners, which can help companies identify tax avoidance opportunities more effectively. This information sharing is crucial, as research shows that firms in concentrated industries often collaborate to optimize tax strategies, leveraging shared insights and experiences. Conversely, when the supply chain relationship is unstable, companies are less inclined to share tax-related information and are generally less motivated to seek assistance from other parties in tax planning. In such environments, the lack of trust and collaboration diminishes the potential for effective tax avoidance strategies.

When the supply chain relationship is unstable, companies are less inclined to share tax-related information and are generally less motivated to seek assistance from other parties in tax planning. From the perspective of Common auditors, when the concentration in the supplier firm's industry is high, the supplier firm has more bargaining power and can obtain supply chain information directly from its partners. In this case, supply chain companies have a limited need for Common auditor information, and the information role of the Common auditor is reduced. On the other hand, when a supplier firm's industry concentration is low, it has less bargaining power and is less likely to share information with its supply chain partners. In such cases, the firm has a greater incentive to consult with a Common auditor for tax-related supply chain information and to rely on the auditor to assist with tax avoidance strategies (Zhiying et al., 2023).

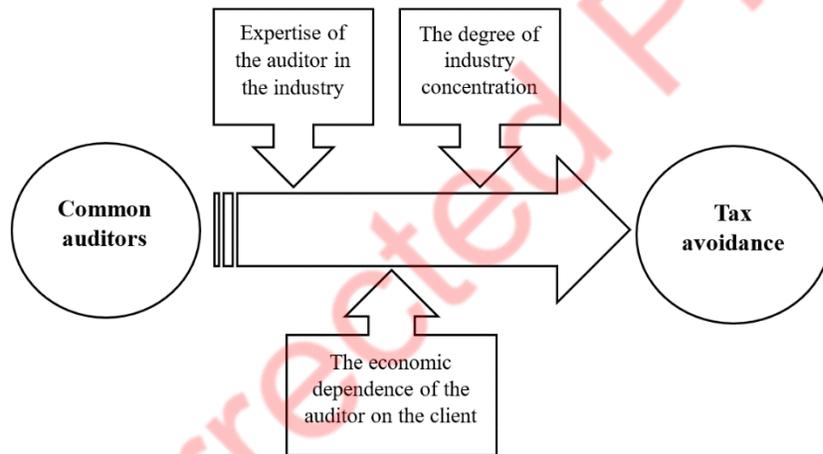
In summary, a lower industry concentration within a supply chain enhances the informational and mediating role of Common auditors in assisting companies (both suppliers and their

customers) with tax avoidance. Thus, the effectiveness of Common auditors in supporting tax avoidance programs can vary depending on the level of industry concentration within the supply chain. Consequently, the fourth hypothesis of the research is formulated as follows:

**H4:** The degree of industry concentration moderates the effect of Common auditor on tax avoidance.

Figure (1) illustrates the mechanism by which common auditors impact tax avoidance, incorporating three moderating factors.

**Figure (1): The Relationship Among Research Variables**



### 3. Research Methodology

This study is a post-event, descriptive-correlation research. Data needed for the research models were sourced from the Rahavard Novin database and the explanatory notes in the published financial statements available on the Codal website. The research sample was drawn from active companies listed on the Tehran Stock Exchange between 2013 and 2023 using a screening method. Companies were selected for the sample based on meeting the following three criteria simultaneously:

a) They should not be among the financial intermediary, bank, insurance and leasing companies. b) Their fiscal year ends at the end of March. c) All necessary information for calculating variables and implementing research models for that company is available. Based on these conditions, a total of 150 companies were selected as research samples.

### 3.1 Research variables

The **independent variable** in this study is the presence of a Common auditor within the supply chain (COMAUD). To determine this variable, we followed the method outlined by Dhaliwal et al. (2017) and Zhiying et al. (2023). This involved reviewing the company's accounts receivable notes to identify the company's customers. Next, by examining the information on these customers, we determined which of them share a Common auditor with the company. For instance, if the company's third or fifth customer has the same auditor, the values 3 and 5 are assigned to this variable, respectively. If none of the company's customers share an auditor with the company, the variable is assigned a value of zero.

The **dependent variable** in this research is corporate tax avoidance. To enhance the robustness of the results, two methods were employed to calculate this variable. The first method, based on the approach of Henry and Sansing (2018) and Zhiying et al. (2023), calculates the tax avoidance variable (DELTA) as follows:

$$\text{DELTA} = \frac{(\text{Taxable Profit} \times \text{Tax Rate} - \text{Taxes Paid This Year} - \text{Taxes Paid Last Year})}{(\text{Book Value of Assets} + \text{Market Value of Capital} - \text{Book Value of Capital})}$$

In the second method, following Crabtree and Kubik (2014) Tax avoidance variable (**ETR**) is calculated as tax paid divided by taxable profit.

Also, in this research, three moderating variables have been used, which are:

**Auditor expertise in the industry (AUDSPEC):** This is calculated by dividing the total assets of companies audited by a firm within a specific industry by the total assets of all companies audited by that firm across the entire sample. For each auditor, the industry with the highest value is assigned a value of one, while all other industries for that auditor are assigned a value of zero (Zhiying et al., 2023).

**Economic dependence of the auditor on the client (ECONDEPEND):** This variable is calculated by dividing the assets of each company audited by an auditor by the total assets of all companies audited by that auditor within the sample. If this ratio exceeds the median value for the entire sample, it is assigned a value of one; otherwise, it is assigned a value of zero (Zhiying et al., 2023).

**Concentration in Industry (HHI):** This is measured using the Herfindahl-Hirschman Index (HHI), which is the sum of the squares of the market share percentages of each company within the industry (Zhiying et al., 2023).

Also, following Bradshaw et al. (2019) and Zhiying et al. (2023) and in order to control the effects of other variables affecting tax avoidance, the following control variables have been used in the research models:

Return on assets (**ROA**): the ratio of net profit to total assets; Leverage (**LEV**): the ratio of total liabilities to total assets; Company size (**SIZE**): the logarithm of the sum of total assets; Company growth rate (**GROWTH**): Change in current year's sales minus previous year's sales divided by previous year's sales; Fixed assets (**PPE**): the ratio of property, machinery and equipment to total assets; Intangible assets (**INT**): ratio of intangible assets to total assets; Auditor quality (**BIG4**): if the company's auditor is an audit organization, the value is one and otherwise, the value is zero; The auditor's opinion type (**OPINION**): If the opinion is acceptable, the value is one and otherwise, the value is zero.

### 3.2 Descriptive statistics and correlation analysis of research variables

Table 1 summarizes the key descriptive statistics for this research, while Table 2 displays the Pearson correlation coefficients among the variables.

**Table (1) - Descriptive statistics of research variables**

| Variables  | Mean  | Median | Maximum | Minimum | Standard Deviation | Observations |
|------------|-------|--------|---------|---------|--------------------|--------------|
| DELTA      | 0.030 | 0.018  | 0.243   | -0.111  | 0.050              | 1214         |
| ETR        | 0.121 | 0.084  | 0.616   | 0.000   | 0.113              | 1152         |
| COMAUD     | 1.478 | 1.000  | 5.000   | 0.000   | 1.004              | 1500         |
| AUDSPEC    | 0.394 | 0.000  | 1.000   | 0.000   | 0.488              | 1500         |
| ECONDEPEND | 0.498 | 0.000  | 1.000   | 0.000   | 0.500              | 1500         |
| HHI        | 0.279 | 0.244  | 0.823   | 0.070   | 0.156              | 1348         |
| BIG4       | 0.190 | 0.000  | 1.000   | 0.000   | 0.392              | 1500         |
| OPINION    | 0.534 | 1.000  | 1.000   | 0.000   | 0.499              | 1500         |
| ROA        | 0.145 | 0.122  | 0.454   | -0.045  | 0.118              | 1350         |
| LEV        | 0.547 | 0.548  | 0.871   | 0.177   | 0.171              | 1350         |
| SIZE       | 6.418 | 6.327  | 7.954   | 5.370   | 0.583              | 1350         |
| GROWTH     | 0.366 | 0.296  | 1.940   | -0.383  | 0.444              | 1213         |
| PPE        | 0.248 | 0.219  | 0.618   | 0.035   | 0.149              | 1350         |
| INT        | 0.353 | 0.178  | 2.005   | 0.000   | 0.440              | 1343         |

As it is clear in the table above, considering the closeness of the median and mean, it can be concluded that the variables of this research have a suitable statistical distribution. The average DELTA is equal to 0.030, this number shows that the profit before tax of companies is more than their taxable profit, and on the other hand, its minimum has also become negative (-0.111), which shows that In some companies, the accounting profit is lower than the taxable profit. The minimum ETR was zero, which indicates that some companies have not paid taxes even though they have made a profit. Also, 1,500 examined samples, with an average of 1,478, have shared auditors with at least one of their clients (Mean

COMAUD=1.478); So that in some research samples, this sharing was with the first major customer, in some with the fifth customer, and in some cases there was no sharing at all.

Furthermore, a comparison of our descriptive statistics with existing literature shows that our average tax avoidance rates align well with findings in studies of emerging economies, where financial pressures, such as those in Iran, often encourage firms to pursue tax-saving strategies. Studies in Iran, for instance, reveal that tax avoidance averages tend to vary with the intensity of financial constraints and sanctions, resulting in higher mean tax avoidance levels than in more stable economies. Additionally, research demonstrates a positive association between common auditors and tax avoidance across various regions. For example, studies from South Korea and Taiwan suggest that firms with extended auditor tenures or common audit firm relationships tend to show a greater propensity for tax avoidance as familiarity and dependency increase. Similarly, our findings align with literature indicating that, under conditions of high economic dependency, auditor independence can be compromised, leading to greater tax avoidance due to reduced oversight. Research in Iran and Taiwan has found that high economic dependency can weaken auditors' resistance to aggressive tax strategies, as reflected in our results.

**Table (2) - Pearson correlation coefficient between research variables**

| Variables         | DELTA  | ETR    | COMAUD | AUDSPEC | ECONDEPEND | HHI    | BIG4   | OPINION | ROA    | LEV | SIZE | GROWTH | PPE | INT |
|-------------------|--------|--------|--------|---------|------------|--------|--------|---------|--------|-----|------|--------|-----|-----|
| <b>DELTA</b>      | 1      |        |        |         |            |        |        |         |        |     |      |        |     |     |
| <b>ETR</b>        | 0.037  | 1      |        |         |            |        |        |         |        |     |      |        |     |     |
| <b>COMAUD</b>     | 0.053  | 0.355  | 1      |         |            |        |        |         |        |     |      |        |     |     |
| <b>AUDSPEC</b>    | 0.012  | 0.194  | 0.180  | 1       |            |        |        |         |        |     |      |        |     |     |
| <b>ECONDEPEND</b> | -0.086 | 0.097  | -0.084 | 0.637   | 1          |        |        |         |        |     |      |        |     |     |
| <b>HHI</b>        | -0.047 | 0.046  | 0.321  | 0.405   | 0.423      | 1      |        |         |        |     |      |        |     |     |
| <b>BIG4</b>       | -0.100 | 0.113  | -0.049 | 0.024   | 0.076      | 0.119  | 1      |         |        |     |      |        |     |     |
| <b>OPINION</b>    | 0.087  | -0.044 | 0.154  | 0.078   | 0.083      | -0.028 | -0.430 | 1       |        |     |      |        |     |     |
| <b>ROA</b>        | 0.065  | -0.477 | -0.156 | -0.339  | -0.344     | -0.283 | -0.453 | 0.180   | 1      |     |      |        |     |     |
| <b>LEV</b>        | -0.192 | 0.021  | -0.219 | -0.058  | 0.112      | 0.004  | 0.273  | -0.062  | -0.373 | 1   |      |        |     |     |

| Variables | DELTA  | ETR    | COMAUD | AUDSPEC | ECONDEPEND | HHI   | BIG4   | OPINION | ROA    | LEV    | SIZE  | GROWTH | PPE   | INT |
|-----------|--------|--------|--------|---------|------------|-------|--------|---------|--------|--------|-------|--------|-------|-----|
| SIZE      | 0.113  | -0.145 | -0.119 | 0.144   | 0.215      | 0.045 | -0.282 | 0.096   | 0.305  | -0.159 | 1     |        |       |     |
| GROWTH    | -0.295 | -0.233 | -0.091 | 0.026   | 0.140      | 0.150 | -0.026 | 0.155   | 0.160  | 0.071  | 0.160 | 1      |       |     |
| PPE       | 0.071  | 0.278  | 0.342  | 0.317   | 0.085      | 0.288 | -0.108 | 0.072   | -0.172 | -0.524 | 0.077 | -0.042 | 1     |     |
| INT       | 0.250  | -0.001 | 0.045  | 0.110   | 0.086      | 0.276 | -0.010 | -0.017  | -0.065 | -0.219 | 0.010 | -0.154 | 0.117 | 1   |

### 3.3 Hypothesis testing

To run all regression models, we employed the combined data method with both year and industry fixed effects. To address issues related to heteroscedasticity, we applied the Generalized Least Squares (GLS) method with cross-sectional weights. To account for autocorrelation, we used White's correction factor. Additionally, we utilized the Variance Inflation Factor (VIF) to mitigate the impact of multicollinearity among explanatory variables.

To test the first research hypothesis, we will implement **Model (1)** as follows:

$$\text{DELAT}_{i,t} = \alpha + \beta_1 \cdot \text{COMAUD}_{i,t} + \beta_2 \cdot \text{ROA}_{i,t} + \beta_3 \cdot \text{LEV}_{i,t} + \beta_4 \cdot \text{SIZE}_{i,t} + \beta_5 \cdot \text{GROWTH}_{i,t} + \beta_6 \cdot \text{PPE}_{i,t} + \beta_7 \cdot \text{INT}_{i,t} + \beta_8 \cdot \text{BIG4}_{i,t} + \beta_9 \cdot \text{OPINION}_{i,t} + \text{INDYSTRY}_{i,t} + \text{YEAR}_i + \varepsilon_{i,t} \quad (1)$$

If the  $\beta_1$  coefficient is significant at the 95% confidence level, the first hypothesis is not rejected. Table (3) shows the results of running model (1) with two dependent variables (DELTA and ETR):

**Table (3) - the results of the first hypothesis test**

| DELTA    |             |            |             |       |       | ETR      |             |            |             |       |       |
|----------|-------------|------------|-------------|-------|-------|----------|-------------|------------|-------------|-------|-------|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. | VIF   | Variable | Coefficient | Std. Error | t-Statistic | Prob. | VIF   |
| $\alpha$ | -0.013      | 0.042      | -0.300      | 0.765 |       | $\alpha$ | 0.121       | 0.161      | 0.748       | 0.456 |       |
| COMAUD   | 0.004       | 0.002      | 2.174       | 0.031 | 1.462 | COMAUD   | 0.026       | 0.006      | 4.247       | 0.000 | 0.000 |
| ROA      | 0.018       | 0.034      | 0.524       | 0.601 | 2.278 | ROA      | -0.318      | 0.122      | -2.615      | 0.011 | 0.011 |
| LEV      | -0.083      | 0.025      | -3.367      | 0.001 | 2.343 | LEV      | 0.074       | 0.087      | 0.853       | 0.396 | 0.396 |

|                  |        |             |            |        |       |                  |        |             |            |        |       |
|------------------|--------|-------------|------------|--------|-------|------------------|--------|-------------|------------|--------|-------|
| SIZE             | 0.017  | 0.006       | 3.140      | 0.002  | 1.474 | SIZE             | 0.018  | 0.022       | 0.797      | 0.428  | 0.428 |
| GROWTH           | -0.030 | 0.007       | -4.148     | 0.000  | 1.262 | GROWTH           | -0.065 | 0.020       | -3.260     | 0.002  | 0.002 |
| PPE              | -0.069 | 0.020       | -3.511     | 0.001  | 2.044 | PPE              | -0.015 | 0.127       | -0.121     | 0.904  | 0.904 |
| INT              | 0.016  | 0.010       | 1.486      | 0.139  | 1.188 | INT              | -0.026 | 0.047       | -0.559     | 0.577  | 0.577 |
| BIG4             | -0.002 | 0.007       | -0.303     | 0.763  | 1.445 | BIG4             | -0.041 | 0.029       | -1.426     | 0.157  | 0.157 |
| OPINION          | 0.002  | 0.006       | 0.322      | 0.748  | 1.456 | OPINION          | 0.006  | 0.020       | 0.279      | 0.781  | 0.781 |
| Adjusted R2      | 0.341  | F-statistic | 8.918      | Prob F | 0.000 | Adjusted R2      | 0.669  | F-statistic | 18.064     | Prob F | 0.000 |
| Year Effects     |        |             | Controlled |        |       | Year Effects     |        |             | Controlled |        |       |
| Industry Effects |        |             | Controlled |        |       | Industry Effects |        |             | Controlled |        |       |

Table (3) shows that the COMAUD variable coefficient is positive in both cases and significant at the 95% confidence level. That is, the first hypothesis is confirmed. Of the two supporting views presented for the first hypothesis, the second view has been confirmed in this research. That is, Common auditors actively participate in the client's tax avoidance activities. This participation may be motivated by several factors. **Attracting and Retaining Clients:** By offering advanced tax avoidance strategies, Common auditors can draw in clients who are looking to minimize their tax liabilities. **Building Long-Term Relationships:** With deep insights into the role of Common auditors, firms can strengthen long-term client relationships and increase opportunities for additional work. Additionally, reducing clients' tax burdens through the services of Common auditors can enhance customer satisfaction and foster loyalty. **Generating Income:** Services like tax planning and consulting are highly profitable. Common auditors who develop expertise in these areas while conducting audits can enhance their revenue and financial stability by offering these valuable services. **Gaining a Competitive Advantage:** By providing tax avoidance strategies, auditors can distinguish themselves from competitors, thereby boosting their reputation and market position.

In summary, these incentives align the financial and professional interests of auditors with companies' goals to minimize taxes, which ultimately facilitates or intensifies clients' tax avoidance activities.

To test the second hypothesis of the research, **model (2)** will be implemented as follows:

$$\begin{aligned} \text{DELAT}_{i,t} = & \alpha + \beta_1.\text{COMAUD}_{i,t} + \beta_2.\text{AUDSPEC} + \\ & \beta_3.\text{COMAUD}\times\text{AUDSPEC} + \beta_4.\text{ROA}_{i,t} + \beta_5.\text{LEV}_{i,t} + \\ & \beta_6.\text{SIZE}_{i,t} + \beta_7.\text{GROWTH}_{i,t} + \beta_8.\text{PPE}_{i,t} + \beta_9.\text{INT}_{i,t} + \quad (2) \\ & \beta_{10}.\text{BIG4}_{i,t} + \beta_{11}.\text{OPINION}_{i,t} + \text{INDYSTRY}_{i,t} + \text{YEAR}_t + \\ & \varepsilon_{i,t} \end{aligned}$$

If the  $\beta_3$  coefficient is significant at the 95% confidence level, the first hypothesis is not rejected. Table (4) shows the results of running model (2) with two dependent variables (DELTA and ETR):

**Table (4) - the results of the second hypothesis test**

| DELTA            |             |             |             |        |       | ETR              |             |             |             |        |       |
|------------------|-------------|-------------|-------------|--------|-------|------------------|-------------|-------------|-------------|--------|-------|
| Variable         | Coefficient | Std. Error  | t-Statistic | Prob.  | VIF   | Variable         | Coefficient | Std. Error  | t-Statistic | Prob.  | VIF   |
| $\alpha$         | -0.063      | 0.047       | -1.325      | 0.227  |       | $\alpha$         | 0.080       | 0.109       | 0.729       | 0.490  |       |
| COMAUD           | 0.006       | 0.002       | 2.455       | 0.044  | 2.495 | COMAUD           | 0.027       | 0.006       | 4.469       | 0.003  | 2.211 |
| AUDSPEC          | -0.013      | 0.011       | -1.205      | 0.267  | 3.344 | AUDSPEC          | -0.010      | 0.033       | -0.316      | 0.761  | 3.298 |
| COMAUD*AUDSPEC   | -0.004      | 0.007       | -0.468      | 0.654  | 4.439 | COMAUD*AUDSPEC   | -0.006      | 0.017       | -0.339      | 0.744  | 4.432 |
| ROA              | -0.041      | 0.056       | -0.727      | 0.491  | 2.606 | ROA              | -0.318      | 0.155       | -2.056      | 0.079  | 3.404 |
| LEV              | 0.004       | 0.040       | 0.102       | 0.922  | 2.945 | LEV              | 0.088       | 0.071       | 1.241       | 0.254  | 3.822 |
| SIZE             | 0.024       | 0.008       | 2.848       | 0.025  | 1.782 | SIZE             | 0.023       | 0.021       | 1.108       | 0.304  | 1.971 |
| GROWTH           | -0.001      | 0.004       | -0.309      | 0.767  | 1.649 | GROWTH           | -0.061      | 0.014       | -4.348      | 0.003  | 2.087 |
| PPE              | 0.002       | 0.050       | 0.030       | 0.977  | 2.502 | PPE              | 0.028       | 0.138       | 0.205       | 0.843  | 3.304 |
| INT              | 0.030       | 0.014       | 2.176       | 0.066  | 1.501 | INT              | -0.028      | 0.023       | -1.200      | 0.269  | 1.101 |
| BIG4             | -0.032      | 0.009       | -3.361      | 0.012  | 1.686 | BIG4             | -0.041      | 0.031       | -1.318      | 0.229  | 1.622 |
| OPINION          | -0.014      | 0.007       | -1.943      | 0.093  | 1.547 | OPINION          | 0.006       | 0.021       | 0.263       | 0.800  | 1.579 |
| Adjusted R2      | 0.404379    | F-statistic | 6.140391    | Prob F | 0.000 | Adjusted R2      | 0.610474    | F-statistic | 12.3064     | Prob F | 0.000 |
| Year Effects     |             |             | Controlled  |        |       | Year Effects     |             |             | Controlled  |        |       |
| Industry Effects |             |             | Controlled  |        |       | Industry Effects |             |             | Controlled  |        |       |

Table (3) shows that in both cases, the auditor's expertise in the industry does not have a significant effect on corporate tax avoidance, nor is it able to moderate the effect of the Common auditor on tax avoidance (The coefficient COMMAND\*AUDSPEC variable coefficient is not significant in any of the two cases). These results show that the second hypothesis of the research has been rejected. Also, these results are not consistent with the theoretical logics of the research. In other words, the findings obtained in the present hypothesis test show an interesting contrast in which Common auditors have a positive effect on tax avoidance, but the auditor's industry expertise does not moderate this relationship. This result can be analyzed from several perspectives. **Building Networking Relationships Between Common auditors and Clients:** Auditors who work with multiple companies within the same industry often develop a deep understanding of industry norms, practices, and strategies, including tax avoidance techniques. The influence on corporate tax avoidance may stem from sharing best practices and sophisticated strategies among clients, driven more by these network effects than by the auditor's individual industry expertise. **Standardization of Tax Avoidance Methods:** Some tax avoidance strategies are quite generic and applicable across various industries. For instance, techniques such as transfer pricing and tax shelters are areas where auditors may possess broad expertise, diminishing the need for industry-specific knowledge. Additionally, tax laws tend to be more uniform across industries, which further reduces the emphasis on specialized industry expertise. **Internal Ability of Companies in Tax Planning:** Many companies hire tax consultants and experts specialized in their respective fields. These experts are typically better equipped to implement industry-specific tax strategies. Consequently, the role of the Common auditor may be more focused on verifying these strategies rather than directly influencing them. **Ethical Considerations for Auditors:** Auditors are bound by ethical standards such as independence and impartiality in their assurance services. While they may offer tax planning

advice during audits, their active role in tax avoidance can be limited by these ethical principles, regardless of their industry expertise.

In summary, the relationship between Common auditors and tax avoidance is likely influenced more by the auditors' extensive network of relationships and the generalized nature of tax avoidance strategies than by their specific industry expertise. The broad network effects and the general applicability of tax avoidance methods, along with the auditors' particular roles and limitations, appear to play a more significant role than the auditors' deep knowledge in any one industry.

To test the third hypothesis of the research, **model (3)** will be implemented as follows:

$$\begin{aligned} \text{DELAT}_{i,t} = & \alpha + \beta_1.\text{COMAUD}_{i,t} + \beta_2.\text{ECONDEPEND} + \\ & \beta_3.\text{COMAUD} \times \text{ECONDEPEND} + \beta_4.\text{ROA}_{i,t} + \beta_5.\text{LEV}_{i,t} \\ & + \beta_6.\text{SIZE}_{i,t} + \beta_7.\text{GROWTH}_{i,t} + \beta_8.\text{PPE}_{i,t} + \beta_9.\text{INT}_{i,t} + \quad (3) \\ & \beta_{10}.\text{BIG4}_{i,t} + \beta_{11}.\text{OPINION}_{i,t} + \text{INDUSTRY}_{i,t} + \text{YEAR}_i + \\ & \varepsilon_{i,t} \end{aligned}$$

If the  $\beta_3$  coefficient is significant at the 95% confidence level, the first hypothesis is not rejected. Table (5) shows the results of running model (3) with two dependent variables (DELTA and ETR):

**Table (5) - the results of the third hypothesis test**

| DELTA             |             |            |             |       |       | ETR               |             |            |             |       |       |
|-------------------|-------------|------------|-------------|-------|-------|-------------------|-------------|------------|-------------|-------|-------|
| Variable          | Coefficient | Std. Error | t-Statistic | Prob. | VIF   | Variable          | Coefficient | Std. Error | t-Statistic | Prob. | VIF   |
| $\alpha$          | -0.003      | 0.034      | -0.087      | 0.933 |       | $\alpha$          | -0.064      | 0.086      | -0.744      | 0.481 |       |
| COMAUD            | 0.013       | 0.011      | 1.187       | 0.274 | 2.865 | COMAUD            | 0.041       | 0.009      | 4.464       | 0.003 | 2.646 |
| ECONDEPEND        | 0.021       | 0.018      | 1.174       | 0.279 | 7.261 | ECONDEPEND        | 0.063       | 0.025      | 2.535       | 0.039 | 5.042 |
| COMAUD*ECONDEPEND | -0.032      | 0.013      | -2.509      | 0.040 | 8.216 | COMAUD*ECONDEPEND | -0.041      | 0.012      | -3.350      | 0.012 | 5.546 |
| ROA               | -0.091      | 0.046      | -1.989      | 0.087 | 2.617 | ROA               | -0.235      | 0.124      | -1.887      | 0.101 | 3.579 |
| LEV               | -0.016      | 0.045      | -0.347      | 0.739 | 2.863 | LEV               | 0.158       | 0.059      | 2.677       | 0.032 | 4.184 |
| SIZE              | 0.015       | 0.007      | 2.306       | 0.055 | 1.675 | SIZE              | 0.026       | 0.019      | 1.362       | 0.216 | 2.090 |
| GROWTH            | -0.005      | 0.004      | -1.317      | 0.229 | 1.759 | GROWTH            | -0.045      | 0.013      | -3.367      | 0.012 | 2.225 |

| DELTA            |             |             |             |        |       | ETR              |             |             |             |        |       |
|------------------|-------------|-------------|-------------|--------|-------|------------------|-------------|-------------|-------------|--------|-------|
| Variable         | Coefficient | Std. Error  | t-Statistic | Prob.  | VIF   | Variable         | Coefficient | Std. Error  | t-Statistic | Prob.  | VIF   |
| PPE              | 0.018       | 0.057       | 0.317       | 0.761  | 2.650 | PPE              | 0.041       | 0.109       | 0.374       | 0.720  | 3.381 |
| INT              | 0.020       | 0.010       | 2.007       | 0.085  | 1.411 | INT              | -0.020      | 0.022       | -0.928      | 0.384  | 1.147 |
| BIG4             | -0.037      | 0.009       | -3.880      | 0.006  | 1.765 | BIG4             | -0.035      | 0.027       | -1.300      | 0.235  | 1.640 |
| OPINION          | -0.010      | 0.007       | -1.434      | 0.195  | 1.668 | OPINION          | 0.005       | 0.021       | 0.211       | 0.839  | 1.647 |
| Adjusted R2      | 0.474       | F-statistic | 7.834       | Prob F | 0.000 | Adjusted R2      | 0.909       | F-statistic | 73.091      | Prob F | 0.000 |
| Year Effects     |             |             |             |        |       | Year Effects     |             |             |             |        |       |
| Controlled       |             |             |             |        |       | Controlled       |             |             |             |        |       |
| Industry Effects |             |             |             |        |       | Industry Effects |             |             |             |        |       |
| Controlled       |             |             |             |        |       | Controlled       |             |             |             |        |       |

Table (4) shows that in both cases, the auditor's economic dependence on the client weakens the effect of the Common auditor on tax avoidance (The coefficient of COMMAND\*ECONDEPEND variable is negative in both cases and significant at 95% confidence level). These results show that the second hypothesis of the research has not been rejected. The economic dependence of auditors on their clients can weaken the impact of the Common Auditor on tax avoidance. Several arguments can be made to explain why the auditor's economic dependence on the client diminishes the impact of a common auditor on tax avoidance. **Auditor Independence and Impartiality:** When auditors are financially reliant on a specific client, their independence can be compromised. Auditors who derive a substantial portion of their revenue from a limited number of clients might be less likely to challenge aggressive tax strategies used by these clients. Conversely, auditors are expected to use rigorous audit methods to review these tax strategies to maintain their independence and avoid regulatory penalties. This dynamic might lead to a reduction in the level of tax avoidance observed among such clients. **Compromise Incentives:** Economic dependence on clients creates financial incentives for auditors to maintain these relationships. This dependence might lead auditors to tolerate a certain degree of tax avoidance but not to the extent that it draws significant negative public attention or results in severe penalties. Thus, auditors may be incentivized to permit

some tax avoidance while avoiding actions that could lead to major repercussions. **Policy Considerations:** Many regulatory frameworks impose strict rules on auditor independence and the extent of permissible tax avoidance. Auditors who rely financially on their clients may be particularly attuned to these regulations and oversight. As a result, to avoid potential penalties or damage to their reputation, they may scrutinize the legality of tax avoidance strategies more carefully.

In summary, an auditor's economic dependence on their client creates a situation where auditors must balance maintaining their client relationship with adhering to legal, regulatory, and professional standards. As a result, this dependence can diminish the auditor's ability to effectively moderate the relationship between Common auditors and tax avoidance.

To test the fourth hypothesis of the research, **model (4)** will be implemented as follows:

$$\begin{aligned} \text{DELAT}_{i,t} = & \alpha + \beta_1.\text{COMAUD}_{i,t} + \beta_2.\text{ECONDEPEND} + \\ & \beta_3.\text{COMAUD} \times \text{ECONDEPEND} + \beta_4.\text{ROA}_{i,t} + \beta_5.\text{LEV}_{i,t} + \\ & \beta_6.\text{SIZE}_{i,t} + \beta_7.\text{GROWTH}_{i,t} + \beta_8.\text{PPE}_{i,t} + \beta_9.\text{INT}_{i,t} + \quad (4) \\ & \beta_{10}.\text{BIG4}_{i,t} + \beta_{11}.\text{OPINION}_{i,t} + \text{INDUSTRY}_{i,t} + \text{YEAR}_i + \\ & \varepsilon_{i,t} \end{aligned}$$

If the  $\beta_3$  coefficient is significant at the 95% confidence level, the first hypothesis is not rejected. Table (6) shows the results of running model (4) with two dependent variables (DELTA and ETR):

**Table (6) - Results of the fourth hypothesis test**

| DELTA      |             |            |             |       |       | ETR        |             |            |             |       |       |
|------------|-------------|------------|-------------|-------|-------|------------|-------------|------------|-------------|-------|-------|
| Variable   | Coefficient | Std. Error | t-Statistic | Prob. | VIF   | Variable   | Coefficient | Std. Error | t-Statistic | Prob. | VIF   |
| $\alpha$   | -0.057      | 0.070      | -0.812      | 0.420 |       | $\alpha$   | -0.275      | 0.189      | -1.453      | 0.154 |       |
| COMAUD     | 0.023       | 0.011      | 2.014       | 0.049 | 3.165 | COMAUD     | 0.179       | 0.025      | 7.132       | 0.000 | 7.187 |
| HHI        | 0.075       | 0.059      | 1.274       | 0.208 | 2.174 | HHI        | 0.762       | 0.140      | 5.458       | 0.000 | 6.905 |
| COMAUD*HHI | -0.091      | 0.032      | -2.851      | 0.006 | 7.232 | COMAUD*HHI | -0.334      | 0.051      | -6.522      | 0.000 | 8.083 |
| ROA        | -0.069      | 0.044      | -1.572      | 0.122 | 3.564 | ROA        | -0.502      | 0.161      | -3.127      | 0.003 | 4.451 |

| DELTA            |             |             |             |        |       | ETR              |             |             |             |        |       |
|------------------|-------------|-------------|-------------|--------|-------|------------------|-------------|-------------|-------------|--------|-------|
| Variable         | Coefficient | Std. Error  | t-Statistic | Prob.  | VIF   | Variable         | Coefficient | Std. Error  | t-Statistic | Prob.  | VIF   |
| LEV              | -0.008      | 0.040       | -0.210      | 0.835  | 3.525 | LEV              | -0.043      | 0.122       | -0.349      | 0.729  | 4.898 |
| SIZE             | 0.015       | 0.007       | 2.038       | 0.046  | 2.082 | SIZE             | 0.061       | 0.024       | 2.556       | 0.014  | 1.962 |
| GROWTH           | -0.010      | 0.008       | -1.212      | 0.231  | 1.859 | GROWTH           | -0.046      | 0.024       | -1.882      | 0.067  | 1.946 |
| PPE              | 0.038       | 0.044       | 0.858       | 0.394  | 3.517 | PPE              | -0.547      | 0.190       | -2.880      | 0.006  | 4.999 |
| INT              | 0.055       | 0.018       | 3.100       | 0.003  | 1.997 | INT              | -0.186      | 0.050       | -3.744      | 0.001  | 1.295 |
| BIG4             | -0.021      | 0.011       | -1.914      | 0.061  | 2.088 | BIG4             | -0.111      | 0.038       | -2.904      | 0.006  | 2.603 |
| OPINION          | 0.010       | 0.007       | 1.398       | 0.168  | 1.743 | OPINION          | -0.059      | 0.024       | -2.448      | 0.019  | 1.663 |
| Adjusted R2      | 0.538       | F-statistic | 6.748       | Prob F | 0.000 | Adjusted R2      | 0.887       | F-statistic | 31.832      | Prob F | 0.000 |
| Year Effects     |             |             | Controlled  |        |       | Year Effects     |             |             | Controlled  |        |       |
| Industry Effects |             |             | Controlled  |        |       | Industry Effects |             |             | Controlled  |        |       |

Table (4) shows that in both cases, the degree of concentration in the industry weakens the effect of the Common auditor on tax avoidance (The variable coefficient  $COMAUD*HHI$  is negative in both cases and significant at the 95% confidence level). These results show that the second hypothesis has not been rejected. There are several arguments that explain why a high level of industry concentration weakens the impact of a common auditor on tax avoidance. **Competition and Control:** In industries where a few firms dominate the market, these companies typically hold significant power. High concentration and market dominance attract greater scrutiny from regulatory bodies and investors. As a result, these companies are often deterred from engaging in aggressive tax planning. Therefore, the industry concentration index, acting as a moderating variable, may weaken the relationship between the influence of Common auditors and corporate tax avoidance. **Compliance with Industry Standards:** In highly concentrated industries, there is often stronger pressure to adhere to industry standards. This can lead to more transparent and consistent tax practices. Auditors, in turn, are likely to discourage aggressive tax strategies to align with these standards. **Effects of Knowledge Spillovers:** In industries with high concentration, information about financial and tax practices tends to spread more

quickly than in less concentrated industries. Consequently, this environment may foster a slight increase in corporate tax avoidance, which in turn reduces the impact of Common auditors on tax avoidance.

In summary, the factors described above collectively create an environment where both industry-dominant firms and auditors are inclined to adopt more conservative tax practices, thereby reducing the likelihood of tax avoidance.

#### **4. Discussion and conclusion**

This article aimed to examine the impact of Common auditors on the tax avoidance of client companies. Additionally, the moderating effects of three variables auditor industry specialization, auditor's economic dependence on the client, and the level of industry concentration on this relationship were also investigated. The results of the first hypothesis indicated that Common auditors exacerbate the tax avoidance activities of their clients. The involvement of auditors in tax avoidance activities within companies may be driven by motivations such as attracting and increasing clients, improving long-term relationships, generating revenue, and providing a competitive advantage for these auditing firms. The results of the second hypothesis showed that the auditor's expertise in the industry is not able to strengthen or weaken the effect of Common auditors on the employer's tax avoidance. This result may have appeared for various reasons. including the nature of Common auditor's influence and the creation of network relationships between Common auditors and their clients, standardization of tax avoidance methods between industries, internal capabilities of companies in tax planning or attention to ethical issues of auditors. Moreover, the results of the third hypothesis indicated that the economic dependence of the auditor on the client weakens the effect of Common auditors on tax avoidance. In other words, the greater the economic dependence of the auditor on the client, the less the Common auditor will participate in the client's tax avoidance activities. The reasons for these findings can be attributed to the auditors' special

attention to the concepts of independence and impartiality in the auditing profession, motivations for compromise with clients, and the policies and regulations governing the auditing profession. Finally, the results of the fourth hypothesis also showed that industry concentration weakens the effect of Common auditors on tax avoidance. In other words, the higher the industry concentration, the less the Common auditors will participate in the client's tax avoidance activities. This result may be attributed to factors such as competitive issues, special attention and oversight on industry leaders, particularly in industries that are more concentrated than others, alignment with industry standards, and ultimately, knowledge spillover effects.

Based on the findings of this research, we offer the following recommendations for the auditing and tax professions, as well as for future researchers:

**a) Practical implications for the auditing and tax professions:**

**Strengthening Oversight of Common auditors:** Regulatory and policy-making institutions in the audit and taxation fields need to increase their monitoring of companies with Common auditors. Empirical evidence suggests that these companies are often linked with higher levels of tax avoidance. Implementing specific quality control regulations for this group of auditors could lead to more accurate audit methods and reports, potentially reducing this issue.

**Reducing Auditor Economic Dependence on Clients:** Auditing institutions should limit their economic dependence on clients to prevent conflicts of interest that could undermine auditor independence. Measures such as setting a cap on the proportion of a company's revenue derived from a particular client or group of clients within an industry can help achieve this.

**Enhancing Auditor Independence and Impartiality:** It is crucial to improve regulations and standards designed to bolster auditor independence for the profession's sustainability and reputation. Evidence indicates that a lack of independence can lead auditors to become involved in aggressive tax planning by clients. Therefore,

it is essential to strengthen auditor independence throughout all stages of the audit process planning, conducting audit tests, and reporting without being influenced by the auditor's expertise or concentration within a particular industry.

#### **b) Implications for future researchers:**

**Exploring Additional Moderating Variables:** Future research could investigate other moderating factors that might influence the relationship between Common auditors and tax avoidance. For example, factors such as corporate governance practices, cultural influences within the industry, or changes in regulations could be examined.

**Advancements in Audit Technologies:** Future studies might also consider how emerging audit technologies for data analysis impact the relationship between Common auditors and tax avoidance. These technologies could offer new methods for identifying and addressing tax avoidance strategies.

**Integrating Quantitative and Qualitative Methods:** Employing qualitative research methods—such as interviews, case studies, and surveys can provide valuable insights into issues that are not captured through quantitative approaches. This can offer a deeper understanding and new perspectives on the topic.

By addressing these suggestions, policymakers, standard setters, and professionals in the audit and tax fields can more effectively tackle issues related to Common auditors and tax avoidance. Additionally, future research can further illuminate the complex relationships identified in this study.

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