



## THE ROLE OF CORPORATE DIVERSIFICATION IN TAX AVOIDANCE IN COMPANIES LISTED IN THE TEHRAN STOCK EXCHANGE

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### Abstract

**Purpose of the Study:** Tax avoidance means the use of gaps in tax laws for non-payment or late payment of taxes for companies, which is affected by different factors. The present study investigates the impact of diversification on tax avoidance in companies. To this end, the financial information of 384 firms during the period of 2011- 2016 in the Tehran Stock Exchange was examined.

**Methodology:** In this research, the required financial information was summarized, classified, and calculated in Excel software and the data were analyzed by using E-views software. The dependent variables were effective tax rate and book-tax difference, while the independent variable was corporate diversification, which shows how to divide the market between business sectors (units) in a company. Control variables include size, financial leverage, company's loss-making, ROA, capital expenditures, R&D, market to book value, CEO ownership, and management of ownership.

**Conclusions/Results:** The findings obtained from this study demonstrate that at a 95% confidence level, there is no significant relationship between diversification and effective tax rates in companies listed in the Tehran Stock Exchange. However, at a 90% confidence level, diversification reduces the effective tax rate. Furthermore, no reliable evidence was found regarding the effect of diversification on book-tax difference at a 95% confidence level.

**Novelty:** Tax is a charge imposed by the government on all organizational profits. Various enterprises have complex operations due to their institutional structure, which makes it possible to increase tax avoidance in these companies. The production or sale of a variety of products (diversification) is bigger and has more complex organizational structures that increase the cost of management and non-management decisions, making it difficult for companies to coordinate their policies.

**Thematic classification:** G10, M41

**Keywords:** *Effective Tax Rate, Book-Tax Difference, Tax Avoidance, Corporate Diversification*

### INTRODUCTION

Tax is a charge imposed by the government on all profit-making units that generate some kind of income. If companies and legal persons are considered as units that operate to earn profits, then it can be expected that they seek solutions to reduce their tax payments (Mazaheri & Rezaei, 2016). Taxes have always been of interest to economic theorists due to the allocative and distributive effects and are considered as one of the most important factors in government policy-making and are considered as one of the most important tools for creating a change in national income (Sa'ei & Sari, 2013). Recent evidence suggests that management efforts to reduce corporate taxation through tax evasion are becoming a common and growing feature in companies' perspectives in many countries around the world (Graham, 2006). Companies may avoid tax payment for two reasons. The first reason is the minimization of cash outflow to reduce financing needs, which may happen in companies with difficult access to financial resources. The second reason may be the ineffective managerial performance. Indeed, managers may avoid tax payment (reduced cash outflow for taxes) in order to hide their weaknesses and prevent their devaluation (Zheng, 2017). The tax evasion debate seems to be more of a case with companies with separation of ownership, since people are less involved in tax avoidance and evasion because of the possibility of being detected and fined and due to risk aversion or intrinsic motives like social duty. However, in companies, shareholders typically expect managers to pursue their own personal interests and seek to reduce tax liabilities and tax avoidance as long as the additional benefits resulting from possible debt reduction are greater than the expected additional costs (Khani et al., 2013).

Many of the contemporary organizations in the world tend to grow their business environment. Managers try to be more loyal to their organizations by meeting the multi-faceted needs of their customers and ultimately increase profitability and the wealth of their shareholders (Ansoff, 1975) and improve the corporate value (Zheng, 2017), as the strategy for

single-product business units has changed to a diverse one (Karimi, 2015). Corporate diversity occurs when companies have more than one business sector or have more sectors than the previous year. In the literature, if companies form various assets and operate in different industries, then they are defined as diversified companies; while independent companies are defined as companies that always work in one business sector. Many diversified companies are the largest in the world, which sell their products and services around the world. The extent of product distribution and service delivery affects not only stock returns and profits but also tax liabilities (Zheng, 2017). It is expected that larger firms have greater operation sustainability and predictable operations (Noravesh et al., 2006).

The criteria and corporate diversity are one of the most important features between the product supplier and the customer. The studies conducted by Hui et al. (2012) display that a significant relationship exists between the diversity of customers of a company's product and financial resources policies, the performance of resource providers and the risk and financial reporting quality.

In recent years, tax avoidance has attracted much attention among academics. The findings obtained by Graham (2006), Lisowsky (2010), Rego and Wilson (2012), and Huang et al. (2012) indicate that tax avoidance is affected by factors, such as corporate financial characteristics, corporate governance, remuneration of directors, ownership structure, and external stakeholders (such as labor unions) (Huang et al., 2016; Zheng, 2017). Meanwhile, there is little evidence concerning the impact of corporate diversity as a business strategy on tax avoidance. Factors that influence corporate assessment and profit reporting have a significant role in tax avoidance. Erickson and Wang (2007) found that the structure of purchasing contracts can affect corporate tax obligations. They believe that diversified companies have a complex structure relative to the centralized companies. Zheng (2017) revealed that diversified companies have lower effective tax rates compared to independent companies. In fact, he maintained that corporate diversification will prevent tax avoidance. Based on the foregoing, the main research question is whether or not there is a significant relationship between corporate diversification and tax avoidance.

## REVIEW OF RELATED LITERATURE

Corporate diversification has a significant impact on performance, disclosure quality, and so on. These corporate characteristics affect tax avoidance of the company. However, the difference in tax avoidance between centralized companies and diversified companies has been ignored in the financial literature. The factors determining tax avoidance, monitoring mechanisms, and new laws can be introduced to decrease tax avoidance. Diversification is regarded as one of the effective and important factors and is considered as the foundation of activities of an economic unit (Zheng, 2017). Companies with a low diversity of products have more centralized customers and may have lower profits and rely on the issuance of bonds, followed by tax avoidance (Itzkowitz, 2013).

Given that tax avoidance can reduce cash flow, centralized companies with major customers may have a high incentive to avoid tax payment, since they face the lack of liquidity through the loss of customers (Huang et al., 2016).

In this section, some of the studies related to the subject of this research have been presented.

Zheng (2017) performed a study about tax avoidance and the difference between stand-alone and diversified firms. The researchers argued that highly-centralized companies have high tax avoidance. In other words, corporate diversification causes the reduction of tax avoidance.

Huang et al. (2016) demonstrated that there is a significant positive relationship between customer concentration and tax avoidance. Additionally, their findings indicated that there is a significant negative relationship between governmental customer concentration and tax avoidance.

Karami et al. (2016) indicate that tax avoidance blemishes the awareness of corporate profits because tax avoidance makes it difficult for shareholders to understand the company's reported profits and causes them to consider it less in their investment decisions, such as stock trading.

Chyz et al. (2015) evaluated the effect of managerial overconfidence and tax avoidance. The results of this study disclosed that managerial overconfidence makes a significant positive impact on tax avoidance. In their opinion, overconfident managers overestimate net investment interest in their tax planning, resulting in tax avoidance.

Hemmati et al. (2015) reveal that there is no significant relationship between tax avoidance components including effective tax, effective rate of cash tax payable, and book-tax differences, with the abnormal delay in the approval of the company's annual profit.

Didar et al. (2014) carried out a study and reported that there is a significant and direct relationship between Herfindahl-Hirschman Index and corporate performance in competitive industries; this relationship is significant and inverse in semi-centralized industries and insignificant and inverse in centralized industries. Further, there is an insignificant and inverse relationship between Herfindahl-Hirschman Index and corporate value in competitive, semi-centralized, and centralized industries.

Results obtained from the research by Andrés et al. (2014) exhibit that at high levels of diversification, the negative relationship between diversity and value creation may be reversed and their relationship is U-shaped, which is partially affected by the mediator variable of growth opportunity. In other words, their results indicate that when companies have a high diversity, their corporate value decreased.

Chen and Zolotoy (2014) revealed that stock liquidity is effective in corporate tax avoidance. Besides, in companies with high levels of business uncertainty, the relationship between stock liquidity and corporate tax avoidance is stronger. Their results also uncovered that financial constraints affect the relationship between stock liquidity and tax avoidance, so that the relationship between stock liquidity and tax avoidance is weaker in companies with more financial constraints, and vice versa.

Volkov and Smith (2014) explored the effect of large corporate variations on the value of the company during the economic downturn. Their results showed that there is a significant relationship between corporate diversity and company value. Another finding was that improving the relative value of diverse companies at a time of economic downturn does not result in more access to foreign capital markets. The results also showed that improving relative value in diverse companies results in better financial management constraints.

Elhiraika and Mbate (2014) review the type of payout and life cycle of the company. In their research, the companies are divided into three groups of different distribution, namely, shares, cash dividends, and a combination of cash dividends and redemptions in other areas. This study found that the company's life cycle is one of the most important reasons for choosing dividend payment methods.

Demirkan et al. (2013) stated that in companies with diverse products, the accrual quality is lower than non-diversified and one-sector companies. Another result of their study suggested that a significant positive correlation between accrual quality and cost of capital in diversified companies.

Francis et al. (2013) illustrated a negative relationship between managerial abilities and discrepancy between diagnostic and declared taxes and between managerial abilities and effective tax rates (tax avoidance), meaning that there is less tax avoidance in companies with more capable managers.

The results of the study by Maham et al. (2013) displayed that companies with a greater financial leverage have less earnings management and more diversified companies (with less transparency) have more earnings management, and ultimately, the effects of debt on discretionary accruals are negative in diversified companies with less transparency. In other words, companies do not use product diversification to prevent lenders' control.

Hemmati and Yousefi Rad (2013) demonstrate that there is a significant negative relationship between the diversity strategy and abnormal returns of companies, whereas no significant relationship was observed between the level of cash holdings and abnormal returns of companies. Additionally, the results revealed that the diversity strategy has a significant positive impact on the relationship between the value of cash holdings and abnormal returns of companies.

The results of the research by Maham et al. (2012) indicated that there is a negative relationship between debt and earnings management. In other words, in companies with high financial leverage, managers have lower earnings management and companies use product diversification to prevent lenders' control and engage in earnings management. The results obtained from the study by Yavari (2012) suggest the existence of a significant positive relationship with M/B ratio. T-test results show that diversified and centralized companies do not differ significantly in terms of ROA, ROE and M/B.

Anil and Yiğit (2011) depicted that the diversity strategy in developed countries initially increases the corporate value and then reduces it. Finally, according to the result of this study, the relationship between diversity and value creation is influenced by factors, such as working conditions, crisis, and lack of conditions for perfect market competition.

The findings of the study by Tang (2011) suggested that cash holding value of one-sector companies is greater than that of multi-sector (diversified) companies. Moreover, the results of his study showed that a negative relationship is

established in companies with financial constraints and other companies. Also, the diversification strategy has a negative effect on the level of cash holding in companies with poor corporate governance mechanisms.

Khuruna and Muser (2009) investigated the tax avoidance relationship with institutional shareholders and found that institutional ownership has a significant impact on tax coverage. There is more tax hiding in companies that have a short-term investment horizon, because they want to save more in the short-term to increase their profits and the value of their stocks. But if the long-term horizon of investment is concerned, the intensity of the institutional ownership relationship with the tax cover is adjusted.

Desai and Dharmaplala (2006) investigated tax avoidance in a setting where the manager decides the level of tax sheltering engaged by the firm and also enjoys the private benefits of control through the diversion of rents. They believed that higher-powered incentives better align managers' interests with shareholders' interests, and they should increase the level of corporate tax sheltering and reduce the extent of managerial rent diversion. Finally, they find a negative relation between the level of incentive compensation and the level of tax sheltering, as it is initially driven by poorly governed firms. The negative association between high-powered incentives and tax avoidance suggests that the tendency toward more tax aggressiveness for poorly governed firms is offset by the fact that reduced diversion is associated with reduced sheltering.

## RESEARCH METHODOLOGY

This study is an applied research design in terms of purpose and since it investigates the relationship between several variables, it is a descriptive-correlational study in terms of nature and method. All companies listed in the Tehran Stock Exchange constitute the research statistical population, which should possess the following characteristics: 1) Companies should have been present in the Tehran Stock Exchange from 2011 to 2016; 2) Companies should not be among banks, financial intermediary companies, leasing companies, and other investment companies; and 3) Companies' data should be complete. The temporal scope of this research is from the beginning of 2011 until the end of 2016. Given the above limitations, 64 companies were selected as the research sample.

With respect to the theoretical foundations and based on similar studies, the research hypotheses are as follows:

1- Diversified companies have lower effective tax rates than centralized companies.

Model (1) related to the first hypothesis

$$ETR_{i,t} = a + \beta_1 DIV_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 Lev_{i,t} + \beta_4 NOL_{i,t} + \beta_5 ROA_{i,t} + \beta_6 CAPX_{i,t} + \beta_7 R\&D_{i,t} + \beta_8 MB_{i,t} + \beta_9 CEO\_OWN_{i,t} + \beta_{10} MAN\_OWN_{i,t} + \varepsilon_{it}$$

2- Diversified companies have lower book-tax difference than centralized companies.

Model (2) related to the second hypothesis

$$BTD_{i,t} = a + \beta_1 DIV_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 Lev_{i,t} + \beta_4 NOL_{i,t} + \beta_5 ROA_{i,t} + \beta_6 CAPX_{i,t} + \beta_7 R\&D_{i,t} + \beta_8 MB_{i,t} + \beta_9 CEO\_OWN_{i,t} + \beta_{10} MAN\_OWN_{i,t} + \varepsilon_{it}$$

## Dependent Variables

The dependent variable of the research is corporate tax avoidance. For this purpose, two indicators are used to measure tax avoidance, which are as follows:

1) Effective tax rate (ETR): It is obtained from the tax expense of company 'i' in year 't' divided by profit before tax of company 'i' in year 't' (Noravesh & Shirvani, 2007).

$$\text{Equation (1) } ETR_{it} = \frac{TAX}{TI_{it}}$$

In which:

ETR<sub>i,t</sub>= Effective tax expense rate of company 'i' in period 't'

TAX<sub>i,t</sub>= Tax expense of company 'i' in period 't'

TI<sub>i,t</sub>= Profit before tax of company 'i' in period 't'

The effective tax rate is a standard that can be used to determine the efficiency of the corporate income tax system. This criterion is based on comparing the effective tax rate with the legal rate of corporate income tax and effectively reflects

the difference between tax policies of companies. The tax avoidance calculation method through the effective cash and long-term tax rate has been adapted from Wang's (2010) research. Indeed, if we consider the total tax avoidance as 1, real tax avoidance will be achieved by deducting the effective tax rate from it (Rezaei & Ja'fari Niyaraki, 2015).

2) Book-tax difference (BTD): It is obtained from the difference between accounting profit of company 'i' in year 't' and taxable profit of company 'i' in year 't' over total assets of company 'i' at the beginning of period 't' (Khani et al., 2013).

$$\text{Equation (2)} \quad \text{BTD}_{it} = \frac{\text{AP}_{it} - \text{TP}_{it}}{\text{TA}_{it}}$$

$\text{BTD}_{it}$  = Book-tax difference of company 'i' in period 't'

$\text{AP}_{it}$  = Accounting profit of company 'i' in period 't'

$\text{TP}_{it}$  = Taxable profit of company 'i' in period 't'

$\text{TA}_{it}$  = Total asset book value of company 'i' in period 't'

### Independent Variable

Corporate diversification (DIV): It shows how to divide the market between business sectors (units) in a company (economic unit) (Yeh et al., 2013).

$$\text{Equation (3)} \quad \text{HHI}_{i,t} = \sum_{j=1}^J \left( \frac{\text{sales}_{i,j,t}}{\text{SALES}_{i,t}} \right)^2$$

In which:

$\text{HHI}_{i,t}$  = Diversification based on Herfindahl Index for company 'i' in period 't'

$\text{Sales}_{i,j,t}$  = Product sale price of type 'i' for company 'j' in period 't'

$\text{SALES}_{i,t}$  = Total sales of company 'j' in period 't'

i = Product type of company 'j'

n = Number of products of company 'j'

### Control Variables

$\text{SIZE}_{i,t}$  = Size of company 'i' in period 't' (natural logarithm of total asset)

$\text{Levi,t}$  = Financial leverage of company 'i' in period 't' (total debt divided by assets)

$\text{NOL}_{i,t}$  = Loss-making of company 'i' in period 't' (dummy variable, it is 1 if the company make losses in the current year; otherwise, it is zero)

$\text{ROA}_{i,t}$  = Return on assets for company 'i' in period 't' (this variable is obtained from net profit divided by assets)

$\text{CAPX}_{i,t}$  = Capital expenditures for company 'i' in period 't' (change in property, machinery and equipment divided by assets)

$\text{R\&Di,t}$  = Research and development expenditures of company 'i' in period 't' (the cost of research and development divided by sales revenue)

$\text{MB}_{i,t}$  = Market value to book value ratio for company 'i' in period 't' (market value to book value of stock)

$\text{CEO\_OWN}_{i,t}$  = CEO ownership of company 'i' in period 't' (percentage of shares available to the CEO)

$\text{MAN\_OWN}_{i,t}$  = Management ownership of company 'i' in period 't' (percentage of shares available to the board of directors)

## ANALYSIS AND INTERPRETATION OF THE DATA

### Descriptive Statistics

As depicted in Table 1, descriptive statistics include mean, median, minimum, maximum, standard deviation, skewness and kurtosis, which are the most famous and the most widely-used descriptive statistics indicators. Mean represents the average data. Skewness and kurtosis are data symmetry indices and indicate their status relative to normal distribution.



**Table 1:** Descriptive statistics of model variables

Variables	Mean	Maximum	Minimum	SD
Effective tax rate	0.12	0.37	0	0.0933
Book-tax difference	0.0467	0.78	-0.27	0.0945
Corporate diversification	0.4331	1.000	0.08	0.2439
Corporate size	14.2368	19.15	10.35	1.5561
Financial leverage	0.6020	1.65	0.13	0.2208
Loss-making	0.0781	1.000	0.000	0.2687
Return on assets	0.1248	0.630	-0.27	0.1273
Capital expenditures	0.0274	0.580	-0.43	0.9198
Research and development expenditures	0.0017	0.040	0.000	0.0051
Market value to book value ratio	2.4089	18.670	-51.79	3.7254
CEO ownership	0.2110	0.490	0.000	0.2941
Management ownership	0.6565	0.670	0.000	0.2472

The central index is the mean which represents the equilibrium point and center of gravity of distribution and is a good index for showing the centrality of data. For example, the mean value for corporate size is 14.2368, indicating that most of the data is centered on this point. Dispersion parameters are the criteria for determining the degree of dispersion from each other or the dispersion relative to the mean. One of the most important dispersion parameters is the standard deviation. Among the variables, research and development expenditures have the lowest amount of dispersion and the variable of corporate size has the highest amount of dispersion.

Given that the combined data (firm-year) are used in this study and the combined data are presented in the form of panel and integrated data, the F-Limer test has been applied to choose between panel and integrated data in model estimation. Moreover, the Hausman test was employed to select between the random effect and the fixed effect models. A summary of the results of F-Limer test and Hausman test is provided in Table 2.

**Table 2:** F-Limer test and Hausman test results

Model	F-Limer test		Hausman test	
	Significance	Result	Significance	Result
1	0.0000	Panel method	0.1719	Random effect method
2	0.0000	Panel method	0.1718	Random effect method

The probability of the model statistic is less than 0.05. Consequently, panel data and random effect methods are accepted. Besides, a summary of the results of heterogeneity of variance test (modified Wald test) and autocorrelation test (Wooldridge test) is shown in Table 3.

**Table 3:** Homogeneity of variance and autocorrelation tests

Model	Homogeneity of variance test (modified Wald test)		Wooldridge test to determine the lack of autocorrelation	
	Significance	Result	Significance	Result
1	0.0000	Heterogeneity of variance	0.9833	Lack of autocorrelation
2	0.0000	Heterogeneity of variance	0.2440	Lack of autocorrelation

According to Table 3, the probability of the obtained statistic for the heterogeneity of variance test for the research models is lower than the error level of 0.05, which suggests that heterogeneity of variance exists in both models. Additionally, given that the probability of the Wooldridge test statistic for both research models is greater than 0.05, it is determined that the residuals of the regression model lack autocorrelation. With regard to the regression models related to the first and second hypotheses, if the probability of t-statistic for the variable of corporate diversification (DIV<sub>i,t</sub>) is less than the error level of 0.05, then the first and second hypotheses are approved.

Given the probability value obtained for the F-statistic, which is less than 0.05, it is found that this model is significant at a 95% confidence level. The coefficient of determination of the first research model is equal to 0.1391, which displays that 13.91% of changes in the dependent variable (effective tax rate) are explained by the independent and control variables. Based on Table 4, the coefficient of the variable of the corporate diversification is -0.0424, which is negative, and the probability of t-statistic for corporate diversification (DIV<sub>i,t</sub>) is 0.0837. This probability value is greater than the error level of 0.05 and less than the error level of 0.10.

**Table 4:** Results of data analysis to test the first hypothesis

Variables	Coefficients	Standard error	T-statistic	Significance
Y Intercept	0.7313	0.0705	10.376	0.000
Corporate diversification	-0.0424	0.0254	-1.672	0.0837
Corporate size	0.0096	0.0045	2.135	0.0334
Financial leverage	0.0304	0.0345	0.882	0.3785
Loss-making	0.0975	0.0167	5.845	0.000
Return on assets	0.0384	0.0484	0.793	0.4286
Capital expenditures	0.0114	0.0422	0.271	0.7867
Research and development expenditures	0.5296	0.9014	0.588	0.5572
Market value to book value ratio	0.0004	0.0009	0.403	0.6871
CEO ownership	-0.0463	0.0206	-2.245	0.0254
Management ownership	-0.0223	0.0237	-0.938	0.3491
The coefficient of determination	0.1391	Adjusted coefficient of determination		0.1160
F-statistic	0.0268	F-statistic significance		0.000

Thus, the first research hypothesis is not confirmed at the 95% confidence level. In other words, at the 95% confidence level, there is no significant relationship between diversification and effective tax rate in companies listed in the Tehran Stock Exchange. However, at the 90% confidence level, diversification causes to reduce the effective tax rate. That is, at the 90% confidence level, diversified companies compared to centralized companies have lower effective tax rates. Overall, it can be argued that at the 90% confidence level, there is a significant negative relationship between corporate diversification and effective tax rate and the first research hypothesis is not rejected at the 95% confidence level. It should be noted that among the control variables, corporate size (SIZE<sub>i,t</sub>), loss-making (NOLI<sub>i,t</sub>), and CEO ownership (CEO\_OWNI<sub>i,t</sub>) have a significant effect on effective tax rates since the probability of t-statistic for the variables of corporate size, loss-making, and CEO ownership is less than the error level of 0.05.

**Table 5:** Results of data analysis to test the second hypothesis

Variables	Coefficients	Standard error	T-statistic	Significance
Y Intercept	-0.0648	0.0625	-1.037	0.300
Corporate diversification	0.0123	0.0231	0.532	0.5952
Corporate size	0.0069	0.0039	1.743	0.0822
Financial leverage	-0.0735	0.0320	-2.295	0.0223
Loss-making	-0.0319	0.0164	-1.947	0.0522
Return on assets	0.3637	0.0470	7.737	0.000
Capital expenditures	-0.0194	0.0414	-0.467	0.6407
Research and development expenditures	1.2700	0.8665	1.466	0.1436
Market value to book value ratio	-0.0006	0.0009	-0.632	0.5278
CEO ownership	-0.0177	0.0192	-0.925	0.3555
Management ownership	0.0186	0.0223	0.833	0.4053
The coefficient of determination	0.3226	Adjusted coefficient of determination		0.3044
F-statistic	17.7677	T-statistic		0.000

According to Table 5, the coefficient of determination of the second research model is equal to 0.3226, which shows that 32.26% of changes in the dependent variable (book-tax difference) are explained by the independent and control variables. With regard to Table 5, the coefficient of the variable of corporate diversification is 0.0123, which is positive and the probability of t-statistic for corporate diversification (DIV<sub>i,t</sub>) is 0.5952. This probability value is greater than the error level of 0.05, which indicates that there is no significant relationship between corporate diversification and book-tax difference in companies listed in the Tehran Stock Exchange. Hence, the second research hypothesis is not accepted at the 95% confidence level. It should be noted that among the control variables, financial leverage (Lev<sub>i,t</sub>) and return on assets have a significant impact on book-tax difference since the probability of t-statistic for the variables of financial leverage and return on assets is lower than the error level of 0.05.

## CONCLUSION

Since tax avoidance can provide managers with inexpensive financial resources, companies that have difficulty in the sales process, especially less diversified companies, may avoid tax payment. Typically, more diversified companies have high sales and this causes an increase in cash inflows. Therefore, it is less likely that tax avoidance occurs in diversified companies.

Research findings at the 95% confidence level demonstrated that diversified companies compared to centralized companies do not have lower book-tax difference and lower effective tax rates. In other words, the results revealed that there is no significant relationship between corporate diversification with effective tax rates and book-tax difference. Thus, the results of this research in both hypotheses are incongruent with the results of Zheng's (2017) research. One of the reasons for rejecting the second hypothesis is that the difference in the amount of depreciation rates according to the tax law, difference in taste in calculating cases, such as tax exemptions resulting from legal gaps, and the political or economic influence of corporate directors and so on cause the book difference between the accounting profit and taxable profit. Accordingly, corporate diversification will not have a significant effect on book-tax difference. The results obtained from this study regarding the first hypothesis (at a 90% confidence level) can suggest that highly diversified companies enjoyed good performance and high cash inflows. Hence, the effective tax rate that forms the basis for tax avoidance assessment has decreased. The results of this research in the first hypothesis (at a 90% confidence level) are consistent with the results of Zheng's (2017) research.

### SUGGESTIONS FOR FURTHER RESEARCH

In this study, practical suggestions can be presented to guide researchers of future studies in the field of accounting, as outlined below:

1. Since different owners have different perspectives and views, students are recommended to examine the relationship between corporate diversification and tax avoidance with regard to government ownership, management ownership, and so on.
2. Given that the existence of high-quality audit and also some monitoring mechanisms, such as non-executive (independent) directors in the composition of the board of directors and institutional shareholders, are effective in tax avoidance, researchers are recommended to conduct a study concerning the impact of corporate diversification on tax avoidance while considering the control variables, such as audit quality and composition of the board of directors (the presence of non-executive directors in the composition of the board of directors).
3. As the results showed that corporate size is effective in corporate tax avoidance, it is suggested that the effect of corporate size on the relationship between corporate diversification and tax avoidance be investigated. In other words, is the relationship between corporate diversification and tax avoidance stronger in large firms or in small firms?

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