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The Relationship between Human Resource Investment Inefficiency and Tax Avoidance: Evidence from Tehran Stock Exchange

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Abstract

Human resource is one of the most critical resources of any organisation that can play an influential role in different functional departments of companies. One of these practices is tax avoidance, which may occur due to the company's poor economic condition. In this study, we intend to investigate the relationship between the inefficiency of investment in human resources and tax avoidance in companies in Iran as a developing country. The research method used among the companies listed on the Tehran Stock Exchange is quasi-experimental with a post-event design. A sample consisting of 108 companies from 2013-2020 was examined using multivariate regression and panel data. The results of examining and analysing the hypotheses showed that over-investment and under-investment in human resource has a positive and significant effect on corporate tax avoidance. It seems that over-investment in human resources leads to an increase in administrative and sales costs (agency costs), and under-investment in human resources leads to a decrease in productivity. Companies tend to pursue policies to survive in competition with other companies, and corporate executives pursue tax avoidance as a helpful solution in this regard.

Keywords

Over-investment in Human Resource, Under-investment in Human Resource, Tax Avoidance, Corporate Executives

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1. Introduction

From an income point of view, taxation is the most important tool for distributing government revenue. Undoubtedly, it is one of the most important fields of economics that tests positive economic theories. Tax theories are the most important economic tools for government policymaking. Theorists especially consider these tools due to their leading and definite position in providing the necessary resources to perform duties in government, economic, welfare, etc. In developed countries, taxes are strong leverage for implementing fiscal, economic policies, social activities and government funding. In these countries, tax revenues are at the top of the government's general revenues. As a result, tax evasion has several potential consequences. Therefore, by identifying the factors affecting tax avoidance, this can be prevented to a large extent.

Investment efficiency is achieved when the company only invests in projects with a positive net present value to increase shareholders' wealth. Therefore, it is possible to expect that the amount of investment of the company is affected by the amount of available funds and not by the projects with a positive net present value is probable only in conditions of weak corporate governance or the existence of agency problems that limit the manager's access to external resources. (Bhabra,Kaur and Seoungpil, 2018). In recent years, the management of organisations has recognised that human capital and effective investment are of great importance in achieving a sustainable and effective competitive advantage (Hendricks,2002). The concept of human capital is rooted in economic literature. This concept became important in business level analysis when companies could no longer gain a sustainable competitive advantage with their physical and tangible assets and competed with each other on their intangible assets (Becker,1964). It can be said that the efficiency of human resources in a company is a reflection of extensive organisational capabilities, availability of resources and return on investment. Indeed, manpower productivity is crucial to a company's success (Taylor et al.,2019). In contrast, research in accounting and economics suggests that the inefficiency of investment in the company's human resources indicates a significant increase in the company's production costs, resulting in deficiencies in financing and investment activities. Human resource inefficiency reflects contracting and control conditions that include agency costs, supervision, transparency, and information exchange (Pinnuck & Lillis, 2007; Jung, Lee and Weber, 2014).

Considering that research conducted outside of Iran is also related to countries with complex and advanced economies, and in developing countries, there is no significant research in this field; it is obvious that the results observed in the business environment of developed countries, due to the different essential elements such as market environment and the agency problems, cannot be generalised to countries like Iran. Therefore, it is necessary to conduct research that examines the impact of the inefficiency of investment in human resources on tax avoidance in developing countries such as Iran. Examining this issue can lead to a review or extension of previous studies on tax avoidance results. This study provides an essential perspective for taxpayers (e.g., Internal Revenue Service (IRS)) and policymakers seeking to identify situations in which corporate tax avoidance is greater. It also enhances our understanding of the relationship between investment efficiency and tax avoidance, likely to impact financial reporting quality, profitability, and firm value.

2. Literature Review and Hypothesis Development

2.1. Tax Avoidance

The existence of income tax reduces the income of the business unit. One of the basic measures

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to maximise the value of the company and shareholders' wealth and increase investment efficiency is to reduce taxes. In the financial literature, companies' legal efforts to minimise tax costs are known as tax management, tax avoidance, and bold tax planning (Desai, Dharmapala and Fung, 2005). Tax avoidance means trying to reduce taxes paid. Tax avoidance is a kind of use of legal loopholes in tax laws to reduce taxes (Hanlon & Shane, 2010). Tax avoidance is a tax-evasion activity without breaking the lines of law and is within the framework of tax law (Agrawal, 2007). Tax avoidance, as a way to reduce the amount of tax on the earning from the performance of business units, creates chains of activities and strategic plans which are entirely legal and progressive in obtaining tax exemptions, which leads to a grey area in the presentation of financial and tax information and reports to the outside of the organisation, and this is becoming a significant concern for governments. Tax avoidance increases available funds. This can create wealth for shareholders or exacerbate agency problems (Hanlon & Shane, 2010).In the traditional view, tax avoidance reduces the transfer of wealth to the government and enables the company to gain more profits and increase stock value (Wilson, 2009). In other words, tax policies are similar to investment decisions that create economic resources for the company through tax avoidance (Francis, Sun, and Wu, 2013). Research on tax avoidance also suggests that funds from tax evasion activities can be used for investment and production. This will increase the expected cash flow in the future and thus reduce the capital cost. In addition, factors such as the level of external oversight and growth opportunities in companies avoiding tax are likely to affect the severity and weakness of capital cost reductions.

2. 2. Inefficiency of Investment and Tax Avoidance

In today's business and economic environment, effective investment can lead to sustainable economic growth and development. Managers with an optimal level of investment can take advantage of profitable opportunities to maximise returns and meet the interests of shareholders. Investment has always been considered one of the main ways to develop companies and prevent recession and backwardness. Meanwhile, resource constraints and the amount of investment caused investment efficiency to be also critical. According to Hubbard (1998), there are at least two theoretical criteria for determining investment efficiency. First, a company needs to raise resources to finance investment opportunities. In fact, in an efficient market, all projects with a positive net present value should be financed. However, most parts of the existing literature in finance have shown that financial constraints limit the ability of managers to finance. Second, if a company decides to finance, there will be no guarantee that it will be invested properly. For example, managers may invest inefficiently by choosing unsuitable projects for their benefit or abusing existing resources. Most articles in this field predict that the selection of poor projects leads to overinvestment (Stein, 2002). It can be said that the amount of investment is determined according to the priority for growth or financial security. In the agency theory framework that companies face information asymmetry problems, managers may deviate from the desired level of their investment and, consequently, suffer from underinvestment or overinvestment. Market failures, along with information asymmetry and agency costs, can lead to projects with negative net present value (overinvestment) and rejection of projects with positive net present value (underinvestment); this means inefficiency in investment (Core et al., 2006; Biddle, Hilary and Verdi, 2009).

Over the past two decades, the business environment in which companies compete has changed dramatically. Today, many influential companies derive their competitive advantage from sources different from traditional sources of wealth creation (Bartlett & Ghoshal, 2002). During the

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Industrial Revolution, companies relied on physical assets such as land, natural resources, buildings, and machinery to create wealth. Still, the emergence of knowledge-based organisations and industries (such as Microsoft and .com companies) has dramatically changed the nature of wealth creation (Stewart, 2004). These companies have created value and the market not because of their physical assets but their intangible assets. Managers today experience an era in which the real capital of organisations is human capital (Barney & Wright, 1998). Therefore, in the present era, knowledge of human resources is considered the most important capability of the organisation in gaining a competitive advantage and is also the main intangible asset. Organisations believe that employees should be considered the basis for improving the quality and efficiency of all organisational processes. Therefore, this factor should be considered the main basis for increasing efficiency and effectiveness and the most valuable capital, the golden key of competition (Ellinger et al., 2002). Therefore, today, organisations place more emphasis on investment in human capital because this investment and improving the quality of labour is one of the main and fundamental areas and ways to improve productivity and accelerate the growth and development of organisations and leading organisations try to attract, nurture, retain, and employ talented and knowledge worker to ensure their competitive advantage today and tomorrow (Baron & Dreps, 2002). It can also be stated that information asymmetry between managers and investors and the existence of conflicts of interest between the two groups may involve managers in ethical risks and lead to overuse of manpower or maintenance of unnecessary manpower in the company (overinvestment in human resources) (Gomariz & Ballesta, 2013). In addition, information asymmetry can lead to the phenomenon of incorrect selection. In this situation, investors who have less information than managers keep themselves safe from the risk of information asymmetry by reducing stock bid prices. This makes it difficult for companies to finance profitable projects and leave too much labour (underinvestment in manpower) to reduce costs (Jung, Lee and Weber, 2014). As a result, an environment associated with market sensitivity, information asymmetry, and human resource investment inefficiencies (overinvestment and underinvestment) may contribute to managerial economic rent, as company managers are allowed to consider their personal interests when doing corporate affairs. Human resources inefficiency is likely to facilitate long-term management of economic rent and bad news hoarding by providing a mask and justifying opportunistic behaviours. Hiding bad news about the consequences of manpower inefficiencies may be caused by compensation contracts and job worries, which can facilitate managerial opportunism, motivate them, and avoid tax. Gathering negative news about human resource inefficiency over a long period can prevent remedial management action and question management strategies from improving operational productivity (Taylor et al., 2019). Manpower inefficiency includes reduced transparency and information exchange. In practice, human resource inefficiencies are prone to information asymmetries or agency problems that lead to increased moral risk or undesirable choices. Underinvestment in manpower through information asymmetry between firm managers and investors may manifest in reduced or increased employment, leading to operational inefficiencies in companies' cash flow (Jung, Lee and Weber, 2014). For example, a conservative approach to hiring and firing may, in turn, limit the profitability of a company's operations and motivate managers to pursue tax evasion activities to increase cash flow. In particular, inefficiency at work may affect the company's ability to monitor and control adequately. On the other hand, human resource inefficiency leads to declining profitability, which may affect the ability of companies to continue operating (Cameron, 1994). This is because, unlike capital, manpower is used primarily for the company's operating cash flow and not for debtor financing.If inefficient manpower employment reduces companies' profits and domestic revenues so that companies cannot meet their current

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needs and costs (i.e., pay wages, profits and taxes), their incentive to save money, including tax avoidance, will increase. Also, the inefficiency of manpower investment can lead to corporate capital budgeting because foreign investors (who have less information than corporate executives) spend more capital costs(Jung, Lee and Weber, 2014). The reason for this is that the human resource market's efficiency can affect the capital supplier's ability to understand the company's financial statements, interpretation of resources and profit retention, cash flow, and its risk. Increasing the cost of external financing makes companies more confident in the domestic budget for their financing and investments. Manpower inefficiency is likely to affect operating cash flow and thus tax avoidance (Taylor et al., 2019).

Asiri et al. (2020) identified a positive and significant relationship between investment inefficiency and tax avoidance. In their studies, Taylor et al. (2019) showed that the inefficiency of investment in manpower is significantly and directly related to tax avoidance. In particular, they concluded that in one case of standard deviation, the inefficiency of investment in manpower had led to a significant tax reduction of 0.71%. Khurana, Moser and Raman (2018) examined managerial ability, tax avoidance, and investment efficiency. The results showed that managerial capacity makes increasing tax avoidance lead to increased investment efficiency. Bailing & Rui (2018) examined the effect of tax avoidance on investment efficiency. The results showed that by increasing tax evasion in the company, overinvestment also increases. Nguyen et al. (2021) show that tax avoidance has a negative impact on the value of businesses. Cook et al. (2017) examined the linear relationship between capital cost and tax avoidance. They found that this relationship at higher levels avoids positive tax payment, which increases uncertainty with tax savings. Comprix et al. (2016), following a study entitled tax avoidance and investment behaviour, considering the role of environmental information, found a significant relationship between tax avoidance and the level of investment and overinvestment. Mohammed et al. (2013) concluded that developed and value-creating manpower is one of the organisations' most critical competitive advantages. The successful performance of organisations depends on value-creating manpower. Organisations must pay special attention to investing and developing their human resources to remain in the global competition. Gomariz & Ballesta (2013) showed that higher quality financial reporting leads to better accountability of managers and more supervision over them and reduces information asymmetry, incorrect selection, and ethical risks, which removes under overinvestment. In their research, Hanlon & Shane (2010) point out that tax avoidance is likely to be explained by several factors and their mutual impacts. They state that the company's strategy, which reflects its overall vision, can be one factor that determines tax avoidance.García-Meca, Ramón-Llorens and Martínez-Ferrero, (2021) show that Narcissism as a personality trait can cause CEOs to implement tax avoidance strategies. Mocanu, Constantin and Răilean (2021) Show that larger companies with lower financial performance and lower leverage ratios are more inclined towards tax avoidance.

According to the above, a significant relationship can be imagined between the amount of investment in human resources and tax avoidance. Therefore, to examine this relationship more accurately and test the validity of this relationship, the research hypotheses are presented as follows:

H1: Overinvestment in human resources affects tax avoidance.

H2: Underinvestment in human resources affects tax avoidance.

3. Research Methodology

3.1. Statistical Sample and Population

We obtain our required data manually from the hardcopy financial statements held in the TSE

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library (Codal[1] and its supplementary software known as Rahavard Novin) for 2013–2020. Table 1 shows the breakdown of the sample selection of the study.

Table 1. The sample of the study

The total firm listed on the Tehran Stock Exchange in 2020	516
Less: Delisted Firms	(113)
Less: Financial year was not at the end of March 20 and changed the end of the financial year	(112)
Less: companies should be affiliated with banks, investment companies and financial intermediaries because the type of activity and the financial structure of such companies are different from those of the sample	(61)
Less: Newly-listed Firms	(122)
Equal: Total Firms in sample	108

3.2. Regression Models

We empirically examine the relationship between inefficiency of investment in human resources and corporate tax avoidance based on models (1) and (2); we will introduce its variables in the following:

$$TaxAvo_{it} = \alpha + \beta_1 NETHIREOV_{it} + \beta_2 SIZE_{it} + \beta_3 lev_{it} + \beta_4 MTB_{it} + \beta_5 CASH_{it} + \beta_6 ROA_{it} + \beta_7 NOL_{it} + \beta_8 CAP_{it} + \beta_9 SALE_{it} + \varepsilon \quad (1)$$

$$TaxAvo_{it} = \alpha + \beta_1 NETHIREUN_{it} + \beta_2 SIZE_{it} + \beta_3 lev_{it} + \beta_4 MTB_{it} + \beta_5 CASH_{it} + \beta_6 ROA_{it} + \beta_7 NOL_{it} + \beta_8 CAP_{it} + \beta_9 GSALE_{it} + \varepsilon \quad (2)$$

3.3. Research Variables

3.3.1. Dependent Variable

The inefficiency of investment in human resources: In the first stage, the Pinnuck and Lillis (2007) model, which expresses the factors affecting investment in human resources, is estimated. This model shows the ability and limitation of the company's management in investing in human resources in financial periods. Therefore, the output of model waste is the same as abnormal investment in human resources. As a result, model (3) is as follows:

$$nethire_{i,t} = \beta_0 + \beta_1 gsale_{i,t} + \beta_2 gsale_{i,t-1} + \beta_3 \Delta roa_{i,t-1} + \beta_4 \Delta roa_{i,t} + \beta_5 roa_{i,t} + \beta_6 ret_{i,t} + \beta_7 size_{i,t-1} + \beta_7 quick_{i,t-1} + \beta_7 \Delta quick_{i,t-1} + \beta_7 \Delta quick_{i,t} + \beta_7 lev_{i,t} + \beta_7 loss1_{i,t-1} + \beta_7 loss2_{i,t-1} + \beta_7 loss3_{i,t-1} + \beta_7 loss4_{i,t-1} + \varepsilon_{i,t} \quad (3)$$

In the above model, we have:

$nethire_{i,t}$: Manpower changes between the year's t and t-1 divided by year t-1;

$size_{i,t-1}$:The size of the company in the previous year, which is obtained from the natural logarithm of the book value of the company's assets; $GSALE_{it}$: Sales growth rate, calculated from the difference between sales between financial period t and t-1 divided by sales in period t-1;

[1] www.codal.ir

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$ROA_{i,t}$: Return on assets obtained from the distribution of net profit after deducting period tax on the book value of all assets; $lev_{i,t-1}$: the leverage of the company in the previous year, which is obtained by dividing the total debt into total assets; $ret_{i,t}$: stock return, which is the return on investment in stocks; $quick_{i,t}$: the quick ratio obtained from the ratio of cash and short-term investment divided by current debt; $loss1_{i,t-1}$: the decline in the profit of a period that if the company's profit for a period is reduced compared to that in the previous period, the variable=one and zero otherwise; $loss2_{i,t-1}$: decrease of profit for two periods, if the company's profit is decreasing for two periods, the variable=one and zero otherwise; $loss3_{i,t-1}$: decrease of profit for three periods, if the company's profit is decreasing for three periods, the variable=one and zero otherwise; $loss4_{i,t-1}$: Profit decline for four periods; if the company's profit is declining for four periods, the variable=one and zero otherwise. Also, in this model, $\varepsilon_{i,t}$represents the part of investment in human resources that could not be predicted according to the conditions and limitations of the company, which itself is divided into two parts, positive and negative.$NETHIREOV_{it}$is the positive part indicates overinvestment, and $NETHIREUN_{it}$ is the negative part indicates underinvestment. Sample data with positive values are used in Model (1), and sample data with negative values are used in Model (2).

3.3.2. Independent Variable

$TaxAvo_{it}$: Tax avoidance, which is calculated according to model (4):

$$TaxAvo_{it} = \frac{(taxinc_{it} - accinc_{it})}{taxinc_{it}} \quad (4)$$

In the above relationship:
$accinc_{it}$: Taxable income declared by the corporation at the end of the fiscal year;
$taxinc_{it}$: Definite taxable income of the corporation at the end of the fiscal year.

3.3.3. Control Variables

$size_{it}$: The size of the company that is obtained from the natural logarithm of the book value of assets; lev_{it}: The financial leverage that results from the ratio of total liabilities to the book value of assets; MTB_{it}: Market value to equity book, which is the ratio of the market value of equity (stock price in the number of shares issued at the end of the fiscal year) to the book value of equity; $CASH_{it}$: Cash and short-term investment divided by the book value of assets; ROA_{it}: Profitability obtained from the ratio of net profit divided by the book value of assets; $GSALE_{it}$: Sales growth rate, which is the difference in sales between financial period t and t-1 divided by sales in period t-1; NOL_{it}: Profit decline that if the company's profit is lower than that in the previous period, the variable= one, and zero otherwise; CAP_{it}: Fix asset ratio divided by the book value of assets.

4. Research Results

4.1. Descriptive statistics of observations:

In order to study the general and essential characteristics of variables to estimate the model,

analyse them accurately and understand the statistical population under study, it is necessary to be familiar with descriptive statistics related to variables.

Table 2. Descriptive statistics

Variables	Mean	Median	Max	Min	deviation	No.
Tax avoidance	0.570	0.547	1.000	0.000	0.365	864
Over-investment in human resource	0.032	0.001	0.796	0.000	0.070	864
Under-investment in human resource	-0.034	-0.034	-0.001	-0.874	0.089	864
Firm size	14.123	14.084	19.313	10.166	1.482	864
Financial leverage	0.593	0.606	0.997	0.061	0.194	864
Market value to the book value of the equity	5.440	2.986	235.078	0.050	12.256	864
Cash	0.060	0.031	0.694	0.000	0.081	864
Profitability	0.107	0.083	0.621	-0.493	0.138	864
Sales growth rate	0.260	0.177	6.555	-0.826	0.591	864
Profit decline	0.405	0.000	1.000	0.000	0.491	864

Table 2 shows that the tax avoidance variable had a mean of 57%, which means that there was tax avoidance in the companies surveyed on average, equal to 57% of the profit before tax. The financial leverage variable has a mean of 59%, i.e. averages of 59% of the total assets of the companies under investigation are financed by the company's debts. Also, the cash variable had a mean of 6%, and on average, the amount of cash and short-term investment was about 6% of the book value of assets in the surveyed companies. The study of profitability variable shows that on average, companies' net profit was about 10% of the book value of assets of the considered companies. The sales growth rate variable also has an average of 26%, which means that, on average, the companies' sales in each year compared to that in the previous year have grown by 26%. The profit decline variable also showed that the profit of 40% of the surveyed companies had a downward trend and was declining.

4.2. Specification Tests (Diagnostics) in Panel Data Models

We perform several diagnostic tests using the R programming language to estimate the most appropriate models. The following is a brief description of these tests at the significance level of 0.05:

One of the necessary conditions for using regression analysis in testing research hypotheses is the normality of the distribution of dependent variables. In this research, Jarque-Bera statistic has been used to test the distribution of research variables and the normality of the distribution of dependent variables. Considering that the significance level of the statistic for the above test is higher than 0.05, as a result, the hypothesis that the distribution of the dependent variable (tax avoidance) is normal is accepted at the 95% confidence level. Also, the results of the F-Limer test show that the test statistic for both models (1) and (2) is less than 0.05. Thus the priority of the panel data model is confirmed for both research models. The results of the Hausman test also show that we use both models using the fixed effects model. One of the hypotheses of linear regression by

ordinary least squares (OLS) method is that all residuals have equal variance. To test the hypothesis of variance heterogeneity in this study, the White test was used. Given that the calculated probability statistic is less than 0.05, the H0 hypothesis of this test that the variances are homogeneous is rejected, which indicates variance heterogeneity and the method of estimating our models will be according to the generalised least squares regression. A summary of the mentioned experiments is shown in Table 3.

Table 3. The summary of specification tests in panel data models

Result	P-Value	Statistics value	Model	Specification test
Normality of the dependent variable	0.088	1.627	-	J-arque-Bera
Appropriateness of the panel method	0.000 0.000	8.244 8.083	First Second	F-limer
Acceptance of fixed effects	0.035 0.000	16.569 19.505	First Second	Hausman
Variance heterogeneity	0.000 0.000	194.852 199.914	First Second	LR

4.3. Hypotheses Testing

The results of the analysis of models (1) and (2) of our research are given in Tables 4 and 5.

Table 4. Results of data analysis to test the first hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.300	0.071	4.243	0.000
NETOV	0.017	0.004	3.889	0.000
SIZE	0.021	0.021	1.000	0.318
LEV	0.050	0.021	2.446	0.015
MTB	3.271	9.611	0.347	0.734
CASH	0.002	0.0210	0.065	0.948
ROA	-0.069	0.014	-5.138	0.000
GSALE	-0.002	0.004	-0.553	0.581
NOL	0.001	0.004	0.306	0.760
Mean dependent var.	1.402		R-squared	0.770
S.D. dependent var.	2.502		Adjusted R-squared	0.765
Sum squared resid	41.110		S.E. of regression	0.241
Durbin-Watson stat	1.762		F-statistic	195.763
			Prob(F-statistic)	0.000

The overall coefficient is larger than the critical statistic, and its significance level is less than 5%, indicating a linear relationship between independent and dependent variables and regression has the necessary statistical validity. Also, in Table IV, it can be seen that the probability value for the variable of overinvestment in human resources is 0.0001, and the sign of the estimated coefficient for the mentioned variable is positive. Since the value of probability is less than 5%, it can be said that there is a positive and significant relationship between overinvestment in human

resources and tax avoidance. Therefore, the first hypothesis of the research is confirmed. The adjusted coefficient of determination equals 76% and indicates that independent and control variables explain 76% of the dependent variable changes. Also, the Durbin-Watson statistic is equal to 1.7620. Since these statistics are in the range of 1.5 to 2.5, it can be stated that the absence of correlation between the residues is accepted in the research model. According to the operational process of the model estimation, this serial autocorrelation has been eliminated.

Table 5. Results of data analysis to test the second hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.384	0.085	4.506	0.000
ABNETHIE	0.036	0.015	2.45	0.015
SIZE	0.012	0.005	2.373	0.018
LEV	0.038	0.024	1.576	0.115
MTB	4.071	8.631	0.471	0.638
CASH	-0.026	0.023	-1.112	0.267
ROA	-0.046	0.013	-3.475	0.001
GSALE	-0.005	0.004	-1.319	0.188
NOL	0.003	0.004	0.832	0.401
Mean dependent var.	1.361		R-squared	0.764
S.D. dependent var.	2.343		Adjusted R-squared	0.758
Sum squared resid	40.500		S.E. of regression	0.240
Durbin-Watson stat	1.678		F-statistic	162.688
			Prob(F-statistic)	0.000

Table 5 shows that the probability value for underinvestment in the human resource variable is 0.046, and the sign of the coefficient of estimation for the mentioned variable is positive. Since the probability value is less than 5%, it can be said that there is a positive and significant relationship between the variable of underinvestment in human resources and tax avoidance. As a result, the second hypothesis of our research is confirmed at a 95% confidence level. The adjusted coefficient of determination equals 75% and indicates that independent and control variables explain 75% of the dependent variable changes. The overall coefficient (F) is larger than the critical statistic. Its significance level is less than 5%, indicating a linear relationship between independent and dependent variables, and regression has the necessary statistical validity. Also, the Durbin-Watson statistic is equal to 1.6779. Since these statistics are in the range of 1.5 to 2.5, it can be stated that the absence of correlation between the residues is accepted in the research model. According to the operational process of the model estimation, this serial autocorrelation has been eliminated.

5. Conclusion

Taxes are one of the most important sources of government revenue, which in addition to providing the financial resources that the government needs, help to distribute income and wealth better. The composition of tax revenues and the share of taxes from the total public revenues differ from one country to another due to economic, cultural, and historical conditions. Tax avoidance and evasion make countries' tax revenues always lower than estimated; therefore, this issue and the factors affecting it and its results are considered issues and concerns in society. On the other hand, human resources as a source of capital have been evaluated by managers of all economic units and

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social institutions. They improve their performance levels and increase their efficiency. As a result, in this study, we sought to investigate the relationship between the inefficiency of investment in human resources and tax avoidance in Iranian companies.

The analysis of the first hypothesis showed that overinvestment in human resources has a positive and significant effect on tax avoidance among Iranian companies in the period under study. Overinvestment in human resources leads to information asymmetry, increases administrative and sales costs (agency costs) and reduces companies' profits and their internal revenue, so that companies cannot meet their current needs and costs (i.e., payment of wages, profits, and taxes), thus their incentive to save money, which may include tax avoidance, increases. Considering the above, it can be said that overinvestment in human resources has a positive and significant effect on tax avoidance. Also, the results of the analysis of the second hypothesis showed that underinvestment in human resources has a positive and significant effect on tax avoidance among Iranian companies in the period under study. This finding reflects the inefficiency of investment in human resources, and consequently, the reduction of the quality of labour is one of the main areas in reducing productivity and slowing down the development of organisations. Therefore, it is expected that by increasing the inefficiency of investment in human resources, company managers increase corporate tax avoidance to compensate for losses due to reduced productivity.

Resources

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