

Tax Avoidance and Corporate Commercial Credit

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Abstract

Objectives: This study aims to investigate the relationship between tax avoidance and firms' commercial credit among firms listed on the Tehran Stock Exchange.

Methodology/Design/Approach: The research is applied in nature and employs a causal (post-event) correlational design. The statistical population includes all firms listed on the Tehran Stock Exchange. Using the systematic elimination method, 142 firms were selected as the research sample and examined over five years from 2019 to 2023, resulting in 710 firm-year observations.

Findings: The results indicate that tax avoidance has a direct and significant effect on firms' commercial credit.

Innovation: This study contributes to the literature by providing empirical evidence on the link between tax behavior and commercial credit in an emerging market context. The findings offer useful implications for managers, creditors, and policymakers in assessing the credit-related consequences of corporate tax avoidance practices.

Keywords: Tax avoidance, trade credit, Tehran Stock Exchange.

1. Introduction

Trade credit, a bilateral agreement between the seller (supplier) and the buyer (demander) that provides an interest-free loan (Martinez-Soleno et al., 2012), serves as a short-term financing source for small and medium-sized enterprises (Seifert et al., 2013). Accordingly, deciding on its use is considered a critical managerial task, as effective management of trade credit can maximize firm value and shareholder wealth. When firms face difficulties in obtaining capital from external sources, trade credit becomes a viable alternative to bank financing (Law et al., 2012; Petersen & Rajan, 1997).

By extending credit to customers, suppliers are exposed to risk because buyers may misuse resources or engage in opportunistic behavior. In other words, resources may be inefficiently allocated as costs of goods sold or administrative and selling expenses (e.g., cost stickiness), increasing the risk of default for the supplier. Such risks can lead not only to financial losses but also potentially to the bankruptcy of the supplier. Consequently, suppliers are naturally motivated to actively monitor their customers' use of resources by acquiring and maintaining relevant information.

Tax avoidance reflects a firm's ability to preserve cash for working capital needs, including credit payments and investments. This signal may enhance suppliers' confidence in the creditworthiness of tax-avoiding firms, making them more willing to extend trade credit. However, there are also reasons to expect a negative relationship between tax avoidance and trade credit. Prior studies suggest that tax avoidance may become easier under financing constraints and limited access to external capital (Edwards et al., 2016). Moreover, high levels of tax avoidance increase organizational complexity and reduce the transparency of financial reporting (Balakrishnan et al., 2019). Suppliers may therefore perceive firms with lower accounting quality as riskier and may be less inclined to grant them trade credit (Raman & Shahrer, 2008). Chen et al. (2017) further argued that poor-quality

financial reporting can hinder a firm's access to trade credit.

Considering the above, the present study seeks to answer the following question:

Does tax avoidance affect the commercial reputation of firms?

Given the lack of definitive findings regarding the effect of tax avoidance on commercial reputation, this study aims to examine the relationship between tax avoidance and commercial reputation using data from 142 firms listed on the Tehran Stock Exchange during 2019–2023. The research will be conducted using EViews software.

The structure of the study is as follows: First, the theoretical foundations and background of the research will be presented; next, the statistical population and research methodology will be described; then, the data will be analyzed; and finally, the results, suggestions, and limitations of the study will be discussed.

2. Theoretical foundations and research background

Tax, as one of the most efficient sources of financing, has been utilized in various ways since the formation of societies and governments. Moreover, taxation plays a sensitive political and financial role, including improving income redistribution, allocating resources, and stabilizing economic fluctuations, which further underscores its importance. These factors have elevated the significance of the tax system, particularly in developing countries that finance their expenditures largely through the sale of natural resources and raw materials (Aria & Delkhah, 2018).

On one hand, firms and taxpayers often seek to minimize taxation, using tax incentives as a strategic tool. On the other hand, both theoretical foundations and empirical evidence indicate that firms strive to reduce and defer taxes on their income (Darabi & Nateghi Rostami, 2018). Tax avoidance is defined as legally minimizing tax obligations without violating laws. Furthermore, firms that engage in tax avoidance to maximize value often increase their use of debt rather than equity in the capital structure (Firmansyah

et al., 2020). While debt can enhance firm leverage, it also increases default risk and can lower the firm's credit rating, subsequently raising the cost of debt.

Trade credit, as a key component of product market transactions, serves as a fundamental source of short-term financing. Research indicates that, after external financing such as bank loans, trade credit is the second most important source of external financing (Norden et al., 2020). Trade credit reflects the level of trust suppliers and creditors place in a firm. Firms with strong trade credit can obtain goods and services without immediate cash payment, and banks and other lenders often extend credit based on the firm's trade creditworthiness (Izadinia & Taheri, 2016).

Since tax belongs to shareholders as a form of savings, tax avoidance may not align with the interests of bank debt holders. Banks often perceive tax avoidance as a source of lending risk. Consequently, firms may rely more on trade credit as an alternative to bank debt. Despite its high implicit cost, trade credit allows firms to acquire goods without immediate cash outflows, ensuring operational continuity and growth

(Hassan & Habib, 2023). In one U.S. sample, the average ratio of accounts payable to sales (total liabilities) was 21%, highlighting the importance of trade credit as a financing source.

Given the widespread use of trade credit and the prevalence of tax avoidance, examining the relationship between these two factors is highly important.

A review of the research background reveals that domestic studies on corporate trade credit have predominantly focused on financial reporting characteristics and their effect on the level of trade credit received. In other words, prior research has emphasized the quality of accounting information—such as net income accuracy, absence of earnings management, fraud-free financial statements, and quality of accruals—as determinants of trade credit. However, the present study, adapted from Habib and Hassan (2023) and implemented domestically, aims to explore beyond these factors by examining the impact of corporate tax avoidance on trade credit—an area not yet addressed in the country.

Researcher(s)	Research Summary
Hutchens et al. (2024)	In a study examining tax avoidance and corporate risk in the United States, they stated that there is a positive and significant relationship between tax avoidance and risk.
Amri et al. (2023)	In a study titled “The interactive effect of tax avoidance and tax risk on firm value” in a sample of 52 firms in Tunisia over the period 2003 to 2016, they stated that ownership structure and the supervisory role of tax authorities are the determining factors explaining tax aggression. While board characteristics do not seem to explain the likelihood of engaging in tax aggression strategies. The results of additional regressions showed that the effect of these characteristics is enhanced in cases where there is no controlling shareholder.
Hassan and Habib (۲۰۲۳)	In a study titled “Tax Avoidance and Trade Credit” in a Sample of Listed Firms in the United States from 1987 to 2017, they found that tax-avoidant firms are more likely to rely on supplier-provided trade credit as a source of financing. The relationship between tax avoidance and trade credit is also more pronounced for subsamples of firms with: (1) greater information asymmetry and (2) greater financial constraints. These findings are robust to a wide range of sensitivity analyses and endogeneity concerns. In an additional analysis, we find that corporate tax avoidance increases firms' reliance on trade credit because it reduces their access to bank loans.
Hasan & Alam (2022)	Examined the relationship between asset redeployability and firms' use of trade credit using a large sample of US firms over the period 1985–2015. The results showed that firms with more redeployable assets used less trade credit. Their cross-sectional analyses showed that the negative relationship between asset redeployability and trade credit was more pronounced for firms with greater financing constraints, higher levels of information asymmetry, and lower corporate liquidity.
Asif and Nisar (۲۰۲۲)	In a study examining the impact of trade credit on firm performance, they stated that the statistical results of the model used support the strong impact of trade credit in determining the financial performance of Pakistani firms. The results also showed that profitable firms with high participation in trade credit can increase their performance by optimally utilizing trade credit resources. However,

Researcher(s)	Research Summary
	obtaining bank loans for firms that do not have operational needs can disrupt their financial health and ultimately threaten their performance, and this relationship is more evident for large firms.
Hassan et al. (۲۰۲۱)	Examined the relationship between the firm life cycle and trade credit in a sample of Egyptian firms. They found evidence that firms in the introduction, growth, and decline stages used significantly more trade credit, while firms in the maturity stage used significantly less trade credit. The firm life cycle operates as a distinct channel to influence trade credit independent of other channels proposed in the literature. These results are robust to alternative regression specifications, alternative measures of life cycle and trade credit, and endogeneity concerns. Firms in the introduction and decline stages adjust trade credit to the target level more quickly than others.
Piri et al. (2023)	In a study titled "Investigating the Moderating Effect of Financial Risk on the Relationship between Corporate Governance and Tax Avoidance," they stated that the results of the study indicate that there is a significant and inverse relationship between corporate governance and tax avoidance, and that financial risk also has a significant and inverse effect on the relationship between corporate governance and tax avoidance.
Setayesh and Ebrahimi (2021)	In a study titled "Substitution Relationship of Leverage in Capital Structure and Tax Avoidance", using a sample of 1026 firms, they showed that there is a negative and significant relationship between leverage and tax avoidance, which indicates the substitution effect of leverage. The results of testing the second hypothesis showed that the effect of the adjusting variable of the cost of leverage on the relationship between the use of leverage and tax avoidance is significant. Examining the effect of control variables also indicates a positive and significant effect of firm size and growth opportunities, and a negative and significant effect of profitability, dividends, and collateral capacity on the use of leverage.
Pourfakharan et al. (2021)	In their study, they examined the effect of government monetary policy on the relationship between financial statement auditing and corporate credit using data from 172 listed firms. The results showed that the quality of the independent auditor and the quality of financial statement auditing improve the corporate credit, and this relationship is moderated and reduced by the government's contractionary monetary policy. Further findings showed that an unqualified audit opinion does not affect corporate credit.
Khajavi et al. (2021)	They examined the effect of trade credit on cost stickiness of firms using a sample of 185 firms listed on the Tehran Stock Exchange in 2011-2019. The findings showed that trade credit has a significant effect on reducing the stickiness of general, administrative, and selling costs, and in years when sales decline, trade credit can accelerate cost reduction and prevent cost stickiness.
Aflatooni and Noroozi (2020)	They investigated the effect of some corporate financial factors on the supply and demand of trade credit using data from 147 firms active in the Tehran Stock Exchange during the period 2007-2017. The results of their research showed that the supply and demand of trade credit increase with the size and age of the firm. Also, the findings indicate a negative effect of firm liquidity on the supply and demand of trade credit.

Based on the theoretical framework, research background, and the presented materials, a general hypothesis was formulated to investigate the impact of tax avoidance on the trade credit of firms listed on the Tehran Stock Exchange, as follows:

Research Hypothesis: Tax avoidance affects a firm's trade credit.

3. Research methodology

The present study is applied in terms of its purpose. Since it describes existing conditions without any intervention, it is a descriptive-causal study in terms of

methodology and falls within the field of positivist accounting research. The data used in this study were gathered from audited financial statements and were analyzed using information obtained from the Tehran Stock Exchange website and the Rahavard Novin database for the period 2018 to 2022. Excel and EViews 10 software were used to process and analyze the data.

The conceptual model of the research aligns with the theoretical relationships among the variables and is illustrated in Figure 1:

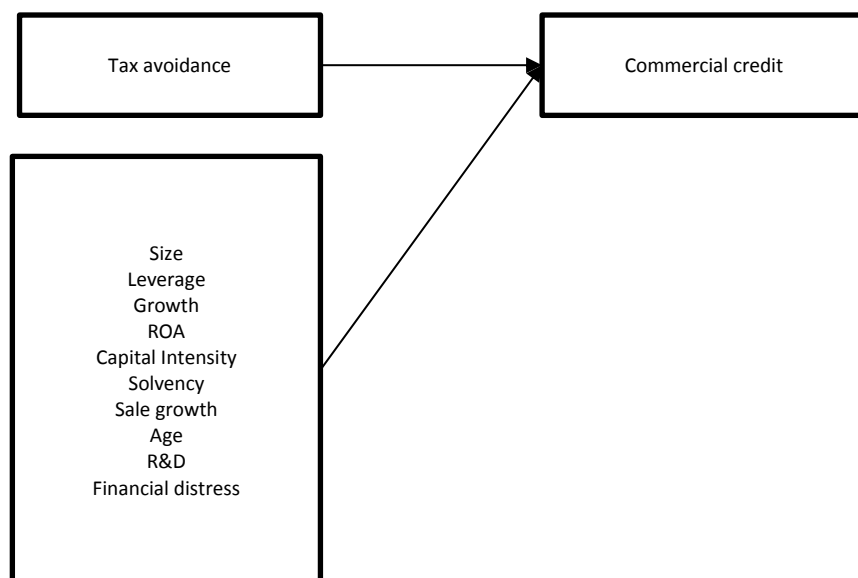


Figure1:

After developing the conceptual model, the research sample was selected using a screening approach from all firms listed on the Tehran Stock Exchange during the period 2018–2022 to collect the required data. To ensure the homogeneity of observations, the following criteria were applied: firms had to be listed before 2018 and remain listed on the Tehran Stock Exchange through 2022; their fiscal year-end had to be Esfand, with no changes in fiscal year or business activity during the study period. Firms operating in investment

and financial intermediation sectors—including leasing and insurance firms, holding firms, banks, and other financial institutions—were excluded due to their distinct reporting structures. Additionally, financial information for the study period had to be available, firms could not experience trading halts exceeding six months, and data for all research variables had to be accessible. As illustrated in Figure 2, after applying these criteria, a total of 142 firms were selected as the final sample for the period 2018–2022.

Figure2. How to select a research sample

Total population in 2022		577
Less: Inactive firms	-193	
Less: Firms with trading suspensions	-33	
Less: Firms that changed their fiscal year	-70	
Less: Firms listed during the study period	-90	
Less: Investment firms, banks, and holding firms	-49	
Final research sample		142

3. Research variables

Based on the theoretical foundations of the study and in line with Hasan and Habib (2023), a model

comprising the identified variables was developed to test the research hypotheses, as presented below.

$$\begin{aligned}
TC_{it} = & \beta_0 + \beta_1 Tax Avoid_{it} + \beta_2 SIZE_{it} + \beta_3 MTB_{it} \\
& + \beta_4 LEV_{it} + \beta_5 ROA_{it} \\
& + \beta_7 CAP INT_{it} \\
& + \beta_8 Growth Sale_{it} + \beta_9 CASH_{it} \\
& + \beta_{10} AGE_{it} + \beta_{11} R\&D_{it} \\
& + \beta_{12} T - score_{it} + \varepsilon_{it}
\end{aligned}$$

The dependent variable in this study is **trade credit (TC)**. Following Hasan and Habib (2023), trade credit is measured as the ratio of end-of-period accounts payable and other payables (AP) to sales. This measure reflects the proportion of total purchases financed through trade credit and has been widely used in prior literature (Garcia-Appendini & Montoriol-Garriga, 2013; Love et al., 2007; Molina & Preve, 2012).

Tax avoidance (Tax Avoid) is considered the independent variable. Consistent with Hasan and Habib (2023) and Arab Salehi and Hashemi (2015), tax avoidance is measured using the cash effective tax rate. The cash effective tax rate is calculated as cash taxes paid divided by pre-tax income and multiplied by negative one to obtain a direct measure of tax avoidance (Arab Salehi & Hashemi, 2015).

Additionally, the following variables are included as **control variables** in the analysis:

- **Firm size (SIZE):** Measured as the natural logarithm of operating revenues.
- **Firm growth (MTB):** Measured as the market-to-book ratio of shareholders' equity.
- **Financial leverage (LEV):** Defined as the ratio of total debt to total assets.
- **Return on assets (ROA):** Calculated as net income divided by total assets.
- **Capital intensity (CAPINT):** Measured as the ratio of fixed assets to total assets.
- **Sales growth (Growth Sale):** Calculated as the change in sales relative to sales in the previous period.
- **Liquidity (Cash):** Measured as the ratio of end-of-period cash holdings to total assets.

- **Firm age (Age):** Measured as the natural logarithm of the difference between the year of firm establishment and the year under consideration.
- **Research and development intensity (R&D):** Defined as the ratio of research and development expenditures to sales.
- **Financial distress risk (T-score):** Measured using the modified Altman model proposed by Kurdistan et al. (2014). To adapt financial distress models to the institutional environment of Iran, the modified model developed by Kurdistan et al. (2014) is employed, consistent with Aflatoon et al. (2022) and Alavi & Memarian (2020).

The final model is specified as follows:

$$T-score_{it} = 0.291(x1) + 2.458(x2) - 0.301(x3) - 0.079(x4) - 0.05(x5)$$

In this model, T-score represents the firm's financial strength, where lower values indicate a weaker financial condition. Specifically, when $T < -0.14$, the probability of financial distress is considered to be very high. The components of the model are defined as follows:

- x1 is the ratio of working capital to total assets.
- x2 is the ratio of retained earnings to total assets.
- x3 is the ratio of operating profit (loss) to total assets.
- x4 is the ratio of the book value of equity to total liabilities.
- x5 is the ratio of revenue to total assets.

4. Research Findings

4.1. Descriptive Statistics

To examine the general characteristics of the variables and to provide a detailed analysis, it is necessary to present the descriptive statistics of the variables. Figure 3 reports the descriptive statistics of the variables used in the study after identifying and replacing outliers. The reported descriptive statistics are based on a sample of 142 firms over five years from 2018 to 2022, resulting in a total of 710 firm-year observations.

Variable name	Symbol	Mean	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
Trade credit	TC	0.25	0.78	0.041	0.20	1.48	4.32
Tax avoidance	Tax Avoid	-0.16	0.0000	-0.78	0.15	-1.73	7.10
Firm size	SIZE	15.42	19.80	11.70	1.75	0.42	3.27
Firm growth	MTB	6.58	15.90	1.11	4.78	0.88	2.48
Financial leverage	LEV	0.50	0.98	0.094	0.20	0.16	2.44
Return on assets	ROA	0.19	0.56	-0.10	0.15	0.37	2.60
Capital intensity	CAPINT	0.26	0.79	0.030	0.19	0.87	2.90
Sales growth	Growth Sale	0.53	1.12	-0.24	0.37	-0.09	2.24
Liquidity	CASH	0.05	0.20	0.005	0.047	1.45	4.58
Firm age	AGE	3.74	4.15	2.94	0.30	-0.56	2.25
R&D intensity	R&D	0.006	0.025	0.0000	0.003	6.38	43.70
Financial distress	T-SCORE	Binary variable (0,1), reported in the following section					

The most important measure of central tendency is the mean, which represents the balance point or center of gravity of a distribution and serves as an appropriate indicator of data centrality. For instance, the mean value of financial leverage is 0.50, indicating that most observations are concentrated around this point.

In general, measures of dispersion indicate the extent to which observations are spread out from one another or deviate from the mean. One of the most widely used measures of dispersion is the standard deviation. For example, the standard deviation is 4.78 for firm growth and 0.003 for research and development intensity, indicating that these variables exhibit the highest and lowest dispersion, respectively.

Additionally, the minimum and maximum values represent the smallest and largest observations for each variable, providing further insight into the data range.

Table 4. Frequency distribution of financial distress

Description	Code	Frequency	Percentage
Financial distress	1	86	12.11
No financial distress	0	624	87.89
Total	–	710	100.00

As reported in Table 4, the total number of firm-year observations is 710. Among these, 86 firm-year observations, representing 12.11 percent of the sample, experienced financial distress, while 624 firm-year observations, accounting for 87.89 percent of the sample, did not experience financial distress.

4.2. Inferential Statistics

4.2.1. Test for Heteroskedasticity

When the error terms are heteroskedastic, the standard error of the intercept becomes inflated. The standard errors of the slope coefficients also depend on the form of heteroskedasticity. For example, if the variance of the error terms is positively related to the square of an explanatory variable, the standard error of the coefficient associated with that variable will be substantially larger (Aflatooni, 2016). Accordingly, the statistical hypotheses of the test are defined as follows:

Null hypothesis (H0): The variance of the error terms is constant.

Alternative hypothesis (H1): The variance of the error terms is not constant.

Table 5. Results of the heteroskedasticity test

Test model	Test statistic	p-value	Test result
Research model	261.36	0.0000	Presence of heteroskedasticity

Source: Research findings

The results reported in Table 5 indicate that the p-value of the heteroskedasticity test for the research model is less than 5 percent, confirming the presence of heteroskedasticity in the error terms. This issue was addressed in the final estimation of the models by applying the GLS procedure and using robust standard errors in EVIEWS 10.

4.2.2. Autocorrelation Test

One of the fundamental assumptions of OLS regression is the absence of autocorrelation (or serial correlation) among the error terms. Since the values of the explanatory variables in the model are random, the error terms should also be random; in other words, there should be no systematic correlation or ordered pattern among them over time. If such a correlation exists, the error terms would no longer be random and would instead depend on the values of the explanatory variables. Autocorrelation can occur across different time periods or across cross-sectional units (Aflatooni, 2018).

Accordingly, the statistical hypotheses of the autocorrelation test are as follows:

Null hypothesis (H0): No autocorrelation exists.

Alternative hypothesis (H1): Autocorrelation exists.

Table 6. Results of the serial autocorrelation test

Test model	Test statistic	p-value	Test result
Research model	229.68	0.0000	Presence of serial autocorrelation

Source: Research findings

As shown in Table 6, the p-value of the serial autocorrelation test for the research model is below the 5 percent significance level, indicating the presence of serial autocorrelation. This problem was resolved in the final estimation by employing robust standard errors in EViews (Aflatooni, 2018).

5. Hypotheses Testing

In this section, the data are analyzed using inferential statistics, employing panel data techniques. First, the stationarity of the variables was examined. Since the study period spans five years, the variables are stationary over this time horizon; therefore, stationarity test results are not reported (Aflatooni, 2018).

Next, the Chow (F-Limer) test was applied to determine the appropriate data structure. Finally, after estimating the model using the selected specification,

the regression assumptions were examined using the GLS procedure with robust standard errors, and the final model was estimated accordingly. Robust standard errors, which are widely used in accounting and finance research, are resistant to heteroskedasticity and serial autocorrelation and also provide the likelihood ratio statistic (Aflatooni, 2018).

5.1. Results of Hypotheses Testing

The hypotheses for the Chow (F-Limer) test are defined as follows:

- Null hypothesis (H0): All intercepts in the model are equal.
- Alternative hypothesis (H1): At least one intercept differs from the others.

Acceptance of the null hypothesis indicates that intercepts are homogeneous across firms and time periods, suggesting that a pooled regression model is appropriate. Rejection of the null hypothesis implies heterogeneity of intercepts across firms or time periods, in which case a panel data model with either fixed or random effects is more suitable.

Table 7. Results of the Chow (F-Limer) test

Test model	Test statistic	p-value	Test result
Research hypothesis	1.930	0.103	Panel data model accepted

Source: Research findings

The research hypothesis states that tax avoidance affects corporate trade credit. Accordingly, the hypothesis is formulated as follows:

Null hypothesis (H0): Tax avoidance does not affect corporate trade credit.

Alternative hypothesis (H1): Tax avoidance has a significant effect on corporate trade credit.

Table 8. Results of hypothesis testing

Model specification: $TC_it = \beta_0 + \beta_1 TaxAvoid_it + \beta_2 SIZE_it + \beta_3 MTB_it + \beta_4 LEV_it + \beta_5 ROA_it + \beta_6 CAPINT_it + \beta_7 GrowthSale_it + \beta_8 CASH_it + \beta_9 AGE_it + \beta_{10} R\&D_it + \beta_{11} TScore_it + \varepsilon_it$						
Dependent variable: Trade credit (TC)						
Variable	Symbol	Coefficient	Std. Error	t-statistic	p-value	VIF
Tax avoidance	Tax Avoid	0.086	0.034	2.52	0.011	1.17
Firm size	SIZE	-0.030	0.003	-9.39	0.0000	1.34
Firm growth	MTB	-0.001	0.001	-1.22	0.220	1.26
Financial leverage	LEV	0.290	0.031	9.40	0.0000	2.07
Return on assets	ROA	-0.230	0.045	-5.17	0.0000	2.45
Capital intensity	CAPINT	0.067	0.027	2.41	0.016	1.50
Sales growth	Growth Sale	-0.071	0.013	-5.35	0.0000	1.11
Liquidity	CASH	-0.170	0.100	-1.70	0.088	1.08
Firm age	AGE	-0.091	0.015	-5.93	0.0000	1.01
R&D intensity	R&D	1.170	1.170	0.99	0.310	1.02
Financial distress	T-Score	0.045	0.017	2.60	0.009	1.47
Constant	—	1.027	0.081	12.60	0.0000	—
R-squared:			0.71			
Durbin-Watson statistic:			2.11			
F-statistic:			118.488			
Prob(F-statistic):			0.0000			

Source: Research findings

5.2. Interpretation of results

The results reported in Table 8 indicate that tax avoidance has a positive and statistically significant effect on trade credit, with a coefficient of 0.086 and a p-value of 0.011. Therefore, the research hypothesis is supported at the 5% significance level.

Among the control variables, firm size, financial leverage, return on assets, capital intensity, sales growth, firm age, and financial distress also exhibit statistically significant relationships with trade credit.

The model's R-squared value of 0.71 indicates that the independent and control variables collectively explain 71% of the variation in trade credit. The Durbin-Watson statistic of 2.11, which falls within the acceptable range of 1.5 to 2.5, suggests that there is no severe autocorrelation in the residuals. Furthermore, all variance inflation factor (VIF) values are below 5, indicating the absence of serious multicollinearity among the explanatory variables. Finally, the F-

statistic is statistically significant at the 5% level, confirming that the overall model has a good fit.

Table 9. Summary of research findings

Hypothesis title	Relationship	Result
Tax avoidance affects corporate trade credit.	Positive	Supported

6. Top of Form Bottom of Form Discussion and Conclusion

Trade credit represents a crucial source of short-term financing, particularly for small and medium-sized enterprises. Decisions regarding the extent of trade credit utilization are among the most critical managerial responsibilities. Trade credit is defined as a bilateral agreement between the seller (supplier) and the buyer (customer); consequently, effective management of trade credit can have a substantial impact on firm value and shareholder wealth. Due to its advantages, firms in many economies often rely more on trade credit than on short-term bank loans.

Prior studies have documented considerable cross-sectional variation in trade credit usage and suggest that it can serve as a substitute for bank financing when firms face constraints in accessing external capital.

Firms may also use trade credit as a channel for tax avoidance. Tax planning activities reflect a firm's strategic efforts to reduce tax liabilities efficiently. However, tax avoidance is inherently risky, as it may lead to future tax disputes and adversely affect firms' after-tax cash flows. From an agency theory perspective, tax avoidance may provide managers with opportunistic incentives, allowing them to exploit information asymmetry to pursue private benefits through aggressive tax strategies. Accordingly, the main objective of this study is to examine the relationship between tax avoidance and corporate trade credit among 142 firms listed on the Tehran Stock Exchange over the period 2018–2022.

The empirical results indicate a positive and statistically significant relationship between tax avoidance and trade credit. Specifically, firms engaging in higher levels of tax avoidance tend to rely more heavily on trade credit. Tax avoidance appears to encourage firms to substitute trade credit for bank debt, as trade credit enables the purchase of goods without immediate cash payment despite its relatively high implicit cost. This non-cash financing mechanism supports firms' operational continuity and growth. The findings are consistent with Hasan and Habib (2023) but contradict the results reported by Edwards et al. (2016). These differences may be attributed to variations in economic development, economic uncertainty, and regulatory oversight between Iran and the United States. Given the structural and institutional differences between these markets, direct comparisons should be interpreted with caution, as contextual factors may influence firms' financing behavior and tax strategies.

7. Practical Implications

Firms that engage in tax avoidance tend to exhibit higher levels of trade credit. Consequently, tax

auditors and investors may use trade credit ratios as an indicator to evaluate the extent of tax avoidance, enabling them to make more informed decisions. Moreover, internal auditors can monitor managers' financing decisions related to trade credit to detect potential tax avoidance motives and implement appropriate control mechanisms.

8. Suggestions for Future Research

Future studies could build on this research by examining the relationship between risk management practices and the use of trade credit. Another promising direction is to investigate the association between trade credit and firms' financial risk. Additionally, future research may explore the role of government ownership in shaping firms' trade credit policies.

References

- Aflatooni, A. (2016). *Econometrics in accounting research* (in Persian). Tehran: Termeh Publications.
- Aflatooni, A. (2018). *Applied panel data analysis in accounting and finance* (in Persian). Tehran: Termeh Publications.
- Aflatooni, A., & Noroozi, M. (2020). Corporate financial characteristics and trade credit supply and demand: Evidence from Iran. *Journal of Financial Accounting Research*, 12(4), 115–140. (In Persian)
- Alavi, S. M. and Memarian, M. (2021). Auditor Characteristics and Bankruptcy Probability. *Empirical Research in Accounting*, 11(2), 159-182. doi: 10.22051/jera.2020.30982.2672 (In Persian)
- Amri, K., Ben Mrad Douagi, F. W., & Guedrib, M. (2023). The impact of internal and external corporate governance mechanisms on tax aggressiveness: Evidence from Tunisia. *Journal of Accounting in Emerging Economies*, 13(1), 43–68. <https://doi.org/10.1108/JAEE-01-2021-0019>

- Arab Salehi, M., & Hashemi, M. (2014). The effect of managerial overconfidence on tax avoidance. *Accounting and Auditing Review*, 22(1), 85–108. (In Persian)
- Aria, M., & Delkhah, J. (2018). Key Success Factors in Managing Tax Administrations (Case of Iranian National Tax Administration). *J Tax Res* 2018; 26 (39):193-220 (In Persian)
- Asif, R., & Nisar, S. (2022). Does trade credit spur performance of the firm: Evidence from Pakistan. *Journal of Islamic Accounting and Business Research*.
<https://doi.org/10.1108/JIABR-10-2021-0289>
- Balakrishnan, K., Blouin, J. L., & Guay, W. R. (2019). Tax aggressiveness and corporate transparency. *The Accounting Review*, 94(1), 45–69. <https://doi.org/10.2308/accr-52130>
- Chen, D., Liu, M., Ma, T., & Martin, X. (2017). Accounting quality and trade credit. *Accounting Horizons*, 31(3), 69–83.
- Darabi, R., & Nateghi Rostami, Z. (2021). The effect of managerial overconfidence on tax avoidance with the moderating role of the audit committee. *Accounting and Management Outlook*, 5(72), 19–37. (In Persian)
- Edwards, A., Schwab, C., & Shevlin, T. (2016). Financial constraints and cash tax savings. *The Accounting Review*, 91(3), 859–881. <https://doi.org/10.2308/accr-51282>
- Firmansyah, A., & Estutik, R. S. (2020). Environmental responsibility performance, corporate social responsibility disclosure, tax aggressiveness: Does corporate governance have a role? *Journal of Governance and Regulation*, 9(4), 8–24. <https://doi.org/10.22495/jgrv9i4art1>
- Garcia-Appendini, E., & Montoriol-Garriga, J. (2013). Firms as liquidity providers: Evidence from the 2007–2008 financial crisis. *Journal of Financial Economics*, 109(1), 272–291. <https://doi.org/10.1016/j.jfineco.2013.02.010>
- Hasan, M. M., & Habib, A. (2024). Corporate tax avoidance and trade credit. *Accounting and Business Research*, 54(6), 700–729.
- Hutchens, M., Rego, S. O., & Wang, C. (2024). Tax avoidance and firm risk. *The Accounting Review*, 99(1), 201–234. <https://doi.org/10.2308/TAR-2022-0412>
- Izadinia, N., & Taheri, M. (2016). The relationship between accounting information quality and trade credit. *Empirical Accounting Research*, 5(19), 81–101. (In Persian)
- Khajavi, S., Ghayouri Moghadam, A., and Hajeb, H. R. (2021). Investigating the Effect of Trade Credit on Cost Stickiness. *Financial Accounting Knowledge*, 8(3), 125–141. doi: 10.30479/jfak.2021.15556.2869
- Kurdistani, G. R., Tatali, R., & Kowsari-Far, H. (2012). Evaluation of the predictive power of the modified Altman model for financial distress in Iran. *Journal of Investment Knowledge*, 3(9), 83–100. (In Persian)
- Love, I., Preve, L. A., & Sarria-Allende, V. (2007). Trade credit and bank credit: Evidence from recent financial crises. *Journal of Financial Economics*, 83(2), 453–469. <https://doi.org/10.1016/j.jfineco.2005.11.002>
- Martínez-Solano, C., & García-Teruel, P. J. (2012). Corporate cash holding and firm value. *Applied Economics*, 45 (2), 161–170.
- Memarian, H., & M. Alavi (2020). Financial distress and firm behavior. *Journal of Accounting Advances*, 12(2), 101–124. (In Persian)
- Molina, C. A., & Preve, L. A. (2012). An empirical analysis of the effect of financial distress on trade credit. *Financial Management*, 41(1), 187–205. <https://doi.org/10.1111/j.1755-053X.2012.01199.x>
- Norden, L. G., Udell, G. F., & Wang, T. (2020). Do bank bailouts affect the provision of trade credit? *Journal of Corporate Finance*, 60, 101522.
- Petersen, M. A., & Rajan, R. G. (1997). Trade credit: Theories and evidence. *The Review of*

- Financial Studies, 10(3), 661–691.
<https://doi.org/10.1093/rfs/10.3.661>
- Piri, P., Sarani Malek, F., & Kazemi, T. (2023). The moderating effect of financial risk on the relationship between corporate governance and tax avoidance. *Studies in Economics, Financial Management and Accounting*, 9(1), 36–53. (In Persian)
- Pourfakharan, M. R., Talebnia, G., Vakilifard, H. R., & Rahnama-Roodposhti, F. (2021). The effect of monetary policy on the relationship between audit quality and trade credit. *Journal of Financial Accounting and Auditing Research*, 13(52), 269–297. (In Persian)
- Raman, K., & Shahrur, H. (2008). Relationship-specific investments and earnings management. *The Accounting Review*, 83(4), 1041–1079.
<https://doi.org/10.2308/accr.2008.83.4.1041>
- Seifert, D., Seifert, R. W., & Protopappa-Sieke, M. (2013). Trade credit: Literature review and research directions. *European Journal of Operational Research*, 231(2), 245–256.
- Setayesh, M. H., & Ebrahimi, F. (2020). The substitution effect of financial leverage and tax avoidance. *Journal of Financial Accounting and Auditing Research*, 49, 53–72. (In Persian)