The Effect of Information Asymmetry and Corporate Diversification on Firm Value with the Mediating Role of Earnings Management

Alireza Farimani[1,*]



Citation: Farimani, A. (2027). The Effect of Information Asymmetry and Corporate Diversification on Firm Value with the Mediating Role of Earnings Management. *Business, Marketing, and Finance Open*, 4(1), 1-16.

Received: 01 February 2026
Revised: 21 June 2026
Accepted: 28 June 2026
Initial Publication: 20 August 2026
Final Publication: 01 January 2027

Copyright: © 2027 by the authors. Published under the terms and conditions of Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

[1] Department of Accounting, Ya.C., Islamic Azad University, Yazd, Iran;

* Correspondence: Alireza_farimani@iau.ac.ir

Abstract: The objective of this study is to examine the effect of information asymmetry and corporate diversification on firm value with the mediating role of earnings management. In terms of subject scope, the research is focused on the field of accounting. In terms of purpose, this study is applied–empirical, because its results can contribute to better decision-making by investors in the stock exchange. In terms of nature, it is classified as descriptive–correlational research. In addition, in terms of reasoning, it is inductive, and theoretically, it falls within the domain of positive research. In terms of spatial scope, the research data were extracted from the databases of the Tehran Securities and Exchange Organization and Research Management Publications, as well as stock-market software programs such as Rahavard Novin and Tadbirpardaz. Accordingly, the statistical population included all companies listed on the Tehran Stock Exchange, and based on the sampling method, 125 companies were selected as the sample. In terms of temporal scope, the research data covered a 10-year period from 2015 to 2024. Excel software was first used to process, classify, and prepare the variables, and EViews software was then used to test the hypotheses. The estimation of the regression models indicated that information asymmetry has a negative and significant effect on firm value, whereas corporate diversification, through a positive and significant effect, plays a constructive role in increasing firm value. Furthermore, the results related to the mediation test showed that earnings management does not have a significant mediating role in the relationship between information asymmetry and firm value; however, in the relationship between corporate diversification and firm value, it acts as a negative mediating variable.

Keywords: Firm value, information asymmetry, corporate diversification, earnings management.

1. Introduction

Firm value is one of the central constructs in accounting, corporate finance, and strategic management because it reflects how capital markets assess the capacity of a company to generate sustainable economic benefits, control risks, and transform resources into future cash flows. In capital-market-based research, firm value is not limited to accounting profit or book-based performance; rather, it represents a broader market-oriented assessment of corporate prospects, managerial effectiveness, asset productivity, financing structure, and information quality. The valuation of firms becomes particularly important in emerging capital markets, where investors often face higher uncertainty, weaker information environments, and greater sensitivity to managerial decisions. In such settings, the determinants of firm value cannot be understood merely through profitability indicators, because market participants also evaluate

the transparency of information, the credibility of reported earnings, the strategic configuration of corporate activities, and the extent to which firms can create synergy among assets and business segments. Asset-based and synergy-based approaches to firm valuation emphasize that value is created when corporate resources, capabilities, and assets are combined in ways that generate benefits beyond their separate book values [1]. Accordingly, firm value is shaped not only by operational performance but also by informational, financial, and strategic mechanisms that affect investor expectations.

One of the most important informational mechanisms influencing firm value is information asymmetry. Information asymmetry arises when managers, insiders, or informed market participants possess more accurate, timely, or complete information about a firm's economic condition than external investors. This imbalance can weaken market efficiency, increase estimation risk, widen the bid–ask spread, and reduce the confidence of investors in the reliability of available information. In financial markets, information asymmetry is especially problematic because investors price securities based on expectations about future performance, while managers have discretionary control over the timing, content, and quality of disclosures. Prior research has shown that information asymmetry can affect stock market quality, liquidity, and the ability of investors to evaluate corporate securities correctly [2]. When the informational environment is opaque, investors may demand a risk premium, discount firm value, or refrain from active participation in trading. This issue is not confined to traditional equity markets; studies in innovative financing contexts have also shown that asymmetric information plays a decisive role in shaping investor trust and entrepreneurial financing outcomes [3]. Therefore, information asymmetry represents a fundamental channel through which corporate transparency and disclosure quality may be translated into market valuation.

The relationship between information asymmetry and firm value has received growing empirical attention, particularly in emerging markets where disclosure systems, governance mechanisms, and market depth may differ from those of developed economies. Research indicates that information asymmetry may reduce firm value by intensifying investor uncertainty, increasing the perceived risk of adverse selection, and weakening the credibility of market signals [4]. In the Iranian capital market, evidence also suggests that information asymmetry can influence firm value and that this relationship may be conditioned by financial characteristics such as leverage [5]. Similarly, studies using Tobin's Q as a market-based indicator have confirmed the relevance of information asymmetry for explaining variations in firm performance and value [6]. More recent evidence from the MENA region indicates that information asymmetry can also affect the value implications of investment decisions, such as capital expenditures, by shaping how investors interpret managerial resource allocation under market competition [7]. These findings collectively suggest that information asymmetry is not merely a disclosure-related problem; it is a valuation-relevant factor that can alter how the market interprets corporate policies, investment behavior, and future growth potential.

Alongside information asymmetry, corporate diversification is another key determinant of firm value. Corporate diversification refers to the expansion of a firm's activities across different products, industries, markets, or business segments. From a strategic perspective, diversification can create value when it enables firms to share resources, exploit economies of scope, reduce operational risk, build internal capital markets, and utilize managerial capabilities across multiple activities. Early evidence from the Tehran Stock Exchange indicates that product diversification is related to the risk and return characteristics of manufacturing firms' shares, suggesting that diversification may affect both the risk profile and market performance of companies [8]. Later studies also examined the direct relationship between corporate diversification and firm value, indicating that diversification

can be an important strategic variable in explaining market valuation [9, 10]. From this perspective, diversified firms may be valued more favorably when investors perceive diversification as a mechanism for risk reduction, revenue stabilization, and resource synergy. However, diversification may not always create value, because it can also increase organizational complexity, weaken monitoring, and create agency problems if managers pursue diversification for private benefits rather than shareholder wealth maximization.

The ambiguity in the value consequences of diversification has led researchers to examine the conditions under which diversification enhances or destroys firm value. International evidence from emerging economies shows that the value effect of corporate diversification may depend on growth opportunities, suggesting that diversification is more beneficial when firms have sufficient prospects to allocate resources efficiently across segments [11]. In the Iranian context, research has also shown that corporate diversification is associated with ownership structure and may vary across different stages of the corporate life cycle [12]. This indicates that the effects of diversification are not uniform across firms; they may depend on governance arrangements, life-cycle position, managerial incentives, and the firm's ability to coordinate diversified operations. Other studies have focused on the accounting consequences of diversification, showing that diversification may influence discretionary accrual quality and earnings persistence [13]. Moreover, diversification may interact with information-related mechanisms, as evidence suggests that information asymmetry can mediate or shape the relationship between diversification and firm performance [14]. These findings imply that diversification should not be evaluated only as a strategic expansion decision, but also as a mechanism that affects information processing, accounting quality, and ultimately firm value.

Another important construct in the valuation process is earnings management. Earnings management occurs when managers use discretion in financial reporting or real operating decisions to influence reported earnings, often with the aim of meeting benchmarks, affecting market perceptions, reducing political or contractual costs, or achieving managerial incentives. Earnings management may take the form of accrual-based manipulation or real activities manipulation. Accrual-based earnings management involves the use of accounting estimates and discretionary accruals, whereas real earnings management involves altering actual business activities, such as production, sales timing, or discretionary expenditures. Foundational evidence shows that real activities manipulation used to meet earnings benchmarks can be associated with future performance consequences, indicating that earnings management may have economic costs beyond temporary reporting effects [15]. In the real estate investment trust context, earnings management has also been linked to stock market information, suggesting that capital market conditions and information environments may influence managerial reporting behavior [16]. Therefore, earnings management is closely connected to both information asymmetry and firm valuation, because it can distort the quality of accounting information on which investors rely.

The empirical literature provides mixed but important evidence regarding the effect of earnings management on firm value. Some studies suggest that earnings management can damage firm value by reducing earnings quality, increasing uncertainty, and weakening investor trust in financial statements. Evidence from Iranian companies has shown that earnings quality is related to firm value, highlighting the importance of reliable accounting information for market-based valuation [17]. Similarly, research on companies listed on the Tehran Stock Exchange indicates that both accrual and real earnings management can affect firm value, emphasizing that managerial discretion in reporting and operations may have valuation implications [18]. More recent evidence has examined the costs of real earnings management and its consequences for firm value, suggesting that such practices may be penalized by markets when they are perceived to reduce long-term economic performance [19]. In the Iranian capital market, recent studies have also investigated the effect of earnings management on firm market

value and have emphasized that market participants respond to the quality and credibility of reported earnings [20]. These findings indicate that earnings management is not merely an accounting technique; it is a market-relevant phenomenon that may alter the valuation of firms.

The relationship between information asymmetry and earnings management is also theoretically meaningful. When information asymmetry is high, managers may have greater opportunity to manage earnings because external users of financial statements face greater difficulty in detecting distortions. Weak monitoring and limited transparency can increase managerial discretion, allowing insiders to use accounting choices or real activities to shape reported performance. Empirical evidence has examined the relationship between information asymmetry and earnings management with an emphasis on corporate governance dimensions, suggesting that governance mechanisms may play an important role in reducing opportunistic reporting behavior under asymmetric information conditions [21]. At the same time, the relationship may be complex: information asymmetry can provide incentives and opportunities for earnings management, while earnings management itself can intensify information asymmetry by reducing the transparency and predictive value of financial reports. This reciprocal logic is important for firm value research because investors may discount firms when they perceive that reported earnings do not faithfully represent economic performance.

Corporate financial policies and agency-related factors further complicate the relationships among information asymmetry, diversification, earnings management, and firm value. Agency theory suggests that conflicts between managers and shareholders can lead to inefficient investment, misuse of free cash flows, and value-destroying decisions. Evidence from the Tehran Stock Exchange shows that free cash flows and agency costs can affect corporate performance, indicating that internal financial resources and managerial incentives are important in explaining firm outcomes [22]. Financial leverage is also relevant because debt can both discipline managers and increase financial risk. Recent studies have examined simultaneous reciprocal effects among real earnings management, financial leverage, dividend payout, and firm value, demonstrating that these variables may interact dynamically rather than operate in isolation [23]. In addition, financial distress and credit constraints can influence investment behavior and corporate outcomes, especially in emerging economies where external financing may be costly or limited [24]. These considerations suggest that valuation models should control for firm-specific financial characteristics while examining the direct and indirect effects of information asymmetry and diversification.

Capital investment decisions also provide an important context for understanding firm value. Investment in assets, technology, productive capacity, and business development is expected to enhance future cash flows, but the market reaction to such investment depends on the quality of information available to investors and the credibility of managerial decisions. Evidence indicates that firm value and accounting profit can influence capital expenditures, and that internal information quality may moderate this relationship [25]. This finding is relevant because both information asymmetry and earnings management can affect how investors interpret corporate investment and diversification strategies. A diversified firm may appear to have greater growth opportunities and resource flexibility, but if information quality is weak or earnings are managed, investors may question whether diversification reflects genuine value creation or managerial opportunism. Therefore, the combined analysis of information asymmetry, diversification, and earnings management provides a more complete framework for explaining firm value than models that examine these variables separately.

Despite the growing body of research on firm value, important gaps remain. Prior studies have separately examined the effects of information asymmetry on market quality and firm value, the relationship between diversification and firm value, and the consequences of earnings management for firm valuation. However, fewer

studies have integrated these constructs into a single mediation framework in which earnings management is examined as a mechanism through which information asymmetry and corporate diversification may influence firm value. This gap is especially important in the Tehran Stock Exchange, where ownership concentration, market volatility, disclosure quality, and financing constraints may increase the relevance of information asymmetry and managerial reporting discretion. Moreover, diversification can have dual effects: it may increase value through synergy and risk reduction, but it may also create opacity and managerial discretion, thereby affecting earnings management and investor valuation. A mediation-based model can therefore clarify whether earnings management transmits, weakens, or reverses the effects of information asymmetry and diversification on firm value.

Therefore, the aim of this study is to examine the effect of information asymmetry and corporate diversification on firm value with the mediating role of earnings management among companies listed on the Tehran Stock Exchange during 2015–2024.

2. Methodology

The research method of the present study is applied, and its findings can be useful for corporate shareholders, creditors, financial analysts, academic researchers, and standard setters. In terms of time dimension, the present research is a retrospective study, and based on the method of data collection, it is descriptive and correlational. In this study, the systematic elimination method, consistent with accounting studies based on data and information from companies listed on the Tehran Stock Exchange, was used. Therefore, companies in the statistical population that met the required conditions were selected as the statistical sample.

To ensure the comparability of information, the fiscal year of the companies had to end in March.

During the research period, their shares had to be traded at least once every three months.

They must not have been investment companies, financial intermediaries, holding companies, or similar entities.

They must not have changed their fiscal year during the period under review.

The companies must have been listed on the Tehran Stock Exchange before 2015 and must not have been delisted by the end of 2024.

Their financial statements and related explanatory notes had to be fully available.

Considering the above conditions and limitations, from among the companies listed on the Tehran Stock Exchange, a final total of 1,250 firm-year observations, comprising 125 companies over 10 years during the period from 2015 to 2024, was collected and selected as the statistical sample of the study.

To calculate the research variables, the required data were extracted from various databases, and where the available data were incomplete, the archives of the library of the Securities and Exchange Organization were consulted. In this regard, it should be noted that, in order to ensure the reliability of the collected data, an effort was made to collect all data from the CODAL issuers' information database. In this study, firm value is considered the dependent variable in the research model. Information asymmetry and corporate diversification are considered independent variables, and earnings management is considered the mediating variable. According to Agustina and Murwaningsari (2025), firm value is obtained by dividing the market value of assets, namely the book value of debt plus the market value of shareholders' equity, by the book value of the firm's assets. According to Agustina and Murwaningsari (2025), information asymmetry is calculated as follows:

Equation (1)

$$AI = \frac{\left(\frac{(AP - BP) \times 100}{AP + BP}\right)}{2}$$

where:

AI

is the percentage bid–ask spread of the shares of firm $i$in year t.

AP

is the best ask price of the shares of firm $i$in period t.

BP

is the best bid price of the shares of firm $i$in period t.

Consistent with the studies of Agustina and Murwaningsari (2025), the following method is used to determine corporate diversification.

Equation (2)

$$DIV_{it} = \sum P_{itj} \ln \left(\frac{1}{P_{itj}}\right)$$

where i, j, and $t$denote firm, industry, and year, respectively. P_{itj}represents the ratio of the revenue of segment $j$to the total revenue of firm $i$in year t. The higher the value of DIV, the greater the corporate diversification.

To measure earnings management, the modified Jones model proposed by Kothari et al. (2005) is used. The model is as follows:

Equation (3)

$$TA_t = \alpha_0 + \alpha_1(\Delta REV_t - \Delta AR_t) + \alpha_2 PPE_t + \alpha_3 ROA_{t-1} + \varepsilon_t$$

where:

Total accruals (TA)are obtained through the difference between operating income and operating cash flow.

Change in sales revenue compared with the previous period (ΔREV).

Change in accounts receivable compared with the previous period (ΔAR).

Return on assets ratio (ROA).

Total property, plant, and equipment (PPE).

All variables in the model are divided by the firm's total assets in the previous year. In addition, in order to control for the specific characteristics of each industry in calculating nondiscretionary accruals, Equation 3 is estimated for each year–industry. The absolute value of the residuals of the model is used as earnings management.

Based on the studies of Agustina and Murwaningsari (2025), the control variables are as follows:

Firm size ($Size$): the natural logarithm of total assets.

Financial leverage (Lev): the ratio of total liabilities to total assets.

Profitability (ROA): the ratio of net income to total assets.

After collecting the data required for the research, an appropriate tool was selected to calculate and analyze the information related to the variables. Excel and EViews software programs were used to perform the calculations

and analyze the data. One of the issues that must be considered in data collection is the validity of the data collection instruments. In this regard, the ability of the instruments to properly represent realities is considered the validity of the data collection instruments. Since the data and information required for this study were obtained from databases prepared by the Tehran Securities and Exchange Organization or from the library of the Tehran Securities and Exchange Organization, the validity of the data collection instruments can be trusted.

3. Findings and Results

Before testing the research hypotheses, the research variables are briefly examined in Table 1. This table contains indicators for describing the research variables. It should be noted that the research variables were normalized at the 5% error level before the descriptive statistics were presented. Based on Table 1, the mean value of firm value, which according to Agustina and Murwaningsari (2025) is obtained by dividing the market value of assets, namely the book value of debt plus the market value of shareholders' equity, by the book value of the firm's assets, is equal to 2.666. This number indicates that most observations are concentrated around this point. The median of this variable is 2.032, indicating that half of the observations are above this value and the other half are below it. The maximum firm value is 7.410, and the minimum value is 1.010. The standard deviation also shows the degree of dispersion relative to the mean. The standard deviation of firm value is 1.755, indicating 1.755 units of dispersion relative to the mean of 2.666.

Table 1. Descriptive Statistics of the Research Variables (Number of Observations: 1,250)

Variable	Symbol	Mean	Median	Maximum	Minimum	Standard Deviation
Firm value	TOBINQ	2.666	2.032	7.410	1.010	1.755
Information asymmetry	AI	0.961	0.999	1.310	0.479	0.236
Corporate diversification	DIV	0.455	0.445	1.059	0.000	0.279
Earnings management	EM	-0.001	-0.002	0.196	-0.198	0.106
Firm size	SIZE	15.477	15.376	18.563	12.976	1.516
Financial leverage	LEV	0.519	0.516	0.862	0.168	0.202
Profitability	ROA	0.155	0.128	0.441	-0.047	0.138

The results presented in Table 2 show that the correlation between information asymmetry and firm value is -0.240. This correlation is significant at the 95% probability level. In addition, the correlation between corporate diversification and firm value is positive (0.192)and significant at the 95% probability level. Moreover, the correlation between earnings management and firm value is negative (-0.089)and significant at the 95% probability level.

Table 2. Correlation Coefficients of the Research Variables

Variable	TOBINQ	AI	DIV	EM	SIZE	LEV	ROA
TOBINQ	1.000						

AI	-0.240	1.000					
	0.000	-----					
DIV	0.192	-0.128	1.000				
	0.000	0.000	-----				
EM	-0.089	0.054	-0.050	1.000			
	0.002	0.058	0.080	-----			
SIZE	0.154	0.023	0.060	-0.036	1.000		
	0.000	0.414	0.033	0.209	-----		
LEV	0.204	-0.045	0.269	-0.026	0.002	1.000	

	0.000	0.112	0.000	0.364	0.930	-----	
ROA	-0.435	0.083	-0.187	0.016	0.147	-0.542	1.000
	0.000	0.003	0.000	0.573	0.000	0.000	-----

First, in order to examine the choice of panel data versus pooled data, the F-Limer test is used. The result of this test is presented in Table 3. In Table 3, since the probability of the F-Limer test statistic is less than the 5% error level for all research models, the use of panel data instead of pooled data is confirmed.

Table 3. Results of the F-Limer Test

Model	F-Test Statistic	Degrees of Freedom	Probability of Test Statistic	Result
First model	2.404	(124, 1118)	0.000	Panel-data method
Second model	1.737	(124, 1118)	0.000	Panel-data method
Third model	2.425	(124, 1117)	0.000	Panel-data method

Considering the obtained results and the confirmation of panel data, it is necessary to conduct the Hausman test to determine random effects and fixed effects. The results of this test are presented in Table 4. Based on the results of the Hausman test in Table 4, it can be observed that the probability of the test statistic is significant at the 95% level for all research models. Therefore, the null hypothesis based on the existence of random effects is rejected, and consequently, panel data with fixed effects is confirmed.

Table 4. Results of the Hausman Test

Model	Chi-Sq. Test Statistic	Degrees of Freedom	Probability of Test Statistic	Result
First model	73.240	5	0.000	Fixed effects
Second model	16.201	5	0.007	Fixed effects
Third model	73.447	6	0.000	Fixed effects

Table 5 presents the results of testing the first research model. As shown in Table 5, the F-statistic in the model is 10.220. In addition, the probability of the F-statistic in the model is zero, indicating the overall significance of the research model. The results related to the coefficient of determination show that, in the model, 54.1% of the changes in firm value are explained by the variables defined in the model. Furthermore, the adjusted coefficient of determination, which has greater reliability, shows that 48.8% of the changes in the dependent variable are explained by the independent and control variables. Given the overall significance of the model, it is possible to comment on the significance of each individual variable.

Specifically, information asymmetry, with a coefficient of $-1.255$and a significance level of 0.000, has a negative and significant effect on firm value, indicating that an increase in information asymmetry can lead to a decrease in firm value. Therefore, the first hypothesis, stating that "information asymmetry has a significant effect on firm value," is confirmed.

In addition, corporate diversification, with a coefficient of 0.384 and a significance level of 0.001, has a positive and significant effect on firm value, indicating that an increase in corporate diversification can increase firm value. Therefore, the second research hypothesis, stating that "corporate diversification has a significant effect on firm value," is confirmed. By examining the relationship between firm value and the other variables, it can be observed that firm size, with a positive coefficient and a probability of 0.000, has a positive and significant effect on firm value. It is also observed that financial leverage and profitability, with negative coefficients and probabilities of 0.000, have negative and significant effects on firm value.

Table 5. Regression Model for Testing the First Research Model

$$Y = \alpha_1 + \beta_1 X_1 + \theta_1 X_2 + \gamma_1 Z + \varepsilon_1$$

Dependent variable: Firm value

Variable	Symbol	Regression Coefficient	Standard Error	t-Statistic	Probability
Information asymmetry	AI	-1.255	0.132	-9.499	0.000
Corporate diversification	DIV	0.384	0.120	3.204	0.001
Firm size	SIZE	0.094	0.024	3.890	0.000
Financial leverage	LEV	-1.405	0.243	-5.771	0.000
Profitability	ROA	-7.011	0.352	-19.918	0.000
Constant coefficient	C	-1.277	0.432	-2.959	0.003
F-statistic		10.220			
Probability of F-statistic		0.000			
Coefficient of determination		0.541			
Adjusted coefficient of determination		0.488			

Table 6 presents the results of testing the second research model. As shown in Table 6, the F-statistic in the model is 3.562. In addition, the probability of the F-statistic in the model is zero, indicating the overall significance of the research model. The results related to the coefficient of determination show that, in the model, 29.1% of the changes in earnings management are explained by the variables defined in the model. Furthermore, the adjusted coefficient of determination, which has greater reliability, shows that 21% of the changes in the dependent variable are explained by the independent and control variables. Given the overall significance of the model, it is possible to comment on the significance of each individual variable. Specifically, information asymmetry, with a coefficient of 0.006 and a significance level of 0.285, does not have a significant effect on earnings management, whereas corporate diversification, with a coefficient of 0.016 and a significance level of 0.004, has a positive and significant effect on earnings management.

Table 6. Regression Model for Testing the Second Model

$$M = \alpha_2 + \beta_2 X_1 + \theta_2 X_2 + \gamma_2 Z + \varepsilon_2$$

Dependent variable: Earnings management

Variable	Symbol	Regression Coefficient	Standard Error	t-Statistic	Probability
Information asymmetry	AI	0.006	0.006	1.069	0.285
Corporate diversification	DIV	0.016	0.005	2.889	0.004
Firm size	SIZE	0.001	0.002	0.613	0.540
Financial leverage	LEV	0.037	0.013	2.932	0.003
Profitability	ROA	0.130	0.015	8.834	0.000
Constant coefficient	C	0.018	0.031	0.592	0.554
F-statistic		3.562			
Probability of F-statistic		0.000			
Coefficient of determination		0.291			
Adjusted coefficient of determination		0.210			

Table 7 presents the results of testing the third research model. As shown in Table 7, the F-statistic in the model is 10.336. In addition, the probability of the F-statistic in the model is zero, indicating the overall significance of the research model. The results related to the coefficient of determination show that, in the model, 54.6% of the changes in firm value are explained by the variables defined in the model. Furthermore, the adjusted coefficient of determination, which has greater reliability, shows that 49.3% of the changes in the dependent variable are

explained by the independent and control variables. Given the overall significance of the model, it is possible to comment on the significance of each individual variable.

Information asymmetry, with a coefficient of $-1.175$and a significance level of 0.000, has a negative and significant effect on firm value. It is also observed that corporate diversification, with a coefficient of 0.385 and a significance level of 0.000, has a positive and significant effect on firm value. In addition, earnings management, with a coefficient of $-1.208$and a significance level of 0.000, has a negative and significant effect on firm value.

By examining the relationship between firm value and the other variables, it can be observed that firm size, with a positive coefficient and a probability of 0.000, has a positive and significant effect on firm value. It is also observed that financial leverage and profitability, with negative coefficients and probabilities of 0.000, have negative and significant effects on firm value.

Table 7. Regression Model for Testing the Third Model

$$Y = \alpha_3 + \tau_1' X_1 + \tau_2' X_2 + \beta_3 M + \gamma_3 Z + \varepsilon_3$$

Dependent variable: Firm value

Variable	Symbol	Regression Coefficient	Standard Error	t-Statistic	Probability
Information asymmetry	AI	-1.175	0.131	-8.951	0.000
Corporate diversification	DIV	0.385	0.119	3.239	0.001
Earnings management	EM	-1.208	0.268	-4.511	0.000
Firm size	SIZE	0.096	0.024	4.005	0.000
Financial leverage	LEV	-1.384	0.249	-5.560	0.000
Profitability	ROA	-7.046	0.349	-20.183	0.000
Constant coefficient	C	-1.398	0.430	-3.251	0.001
F-statistic		10.336			
Probability of F-statistic		0.000			
Coefficient of determination		0.546			
Adjusted coefficient of determination		0.493			

Considering the significance of the paths in the model, the mediating role of earnings management in the relationship between information asymmetry and firm value is examined using the Sobel test.

If the value of $Z$is greater than 1.96, the observed indirect effect is statistically significant. The value of Zin the above path was obtained as -0.976. Therefore, the third research hypothesis, stating that "earnings management has a mediating role in the relationship between information asymmetry and firm value," is rejected. Next, the mediating role of earnings management in the relationship between corporate diversification and firm value is examined.

Considering that the value of Zin the above path was obtained as -2.609, the fourth research hypothesis, stating that "earnings management has a mediating role in the relationship between corporate diversification and firm value," is confirmed.

4. Discussion and Conclusion

The purpose of this study was to examine the effect of information asymmetry and corporate diversification on firm value with the mediating role of earnings management among companies listed on the Tehran Stock Exchange during 2015–2024. The empirical findings showed that the overall regression models were statistically significant and had acceptable explanatory power for explaining changes in firm value and earnings management. The first model indicated that information asymmetry had a negative and significant effect on firm value, while corporate

diversification had a positive and significant effect on firm value. In the second model, information asymmetry did not have a significant effect on earnings management, but corporate diversification had a positive and significant effect on earnings management. In the third model, after adding earnings management to the model, information asymmetry continued to have a negative and significant effect on firm value, corporate diversification continued to have a positive and significant effect on firm value, and earnings management had a negative and significant effect on firm value. The Sobel test further showed that earnings management did not mediate the relationship between information asymmetry and firm value, whereas it played a significant negative mediating role in the relationship between corporate diversification and firm value.

The first finding indicated that information asymmetry has a negative and significant effect on firm value. This result means that, as the gap between informed and uninformed market participants increases, firm value decreases. From a theoretical perspective, this finding is consistent with the logic of information economics and agency theory. When managers and insiders possess more information than external investors, the uncertainty surrounding the firm's real economic condition increases. Investors may interpret this opacity as a sign of higher adverse selection risk, lower disclosure quality, weaker monitoring, and greater probability of opportunistic behavior. Consequently, they may discount the firm's shares, demand a higher expected return, or reduce their willingness to participate in trading. This mechanism is especially important in emerging capital markets, where the credibility, timeliness, and comparability of disclosed information are highly relevant to valuation decisions. The finding is aligned with studies showing that information asymmetry weakens stock market quality and affects investors' ability to evaluate companies accurately [2]. It is also consistent with evidence that information asymmetry reduces firm value and affects market-based performance indicators such as Tobin's Q [4, 6].

This result can also be interpreted in light of the role of transparency in the valuation of investment opportunities. Firm value reflects not only current profitability but also the market's expectations regarding future cash flows, risk, and growth capacity. When information asymmetry is high, investors face difficulty distinguishing high-quality firms from low-quality firms. As a result, even firms with favorable prospects may be undervalued if the information environment does not allow investors to verify those prospects. This is consistent with evidence that information asymmetry affects the value implications of capital expenditures and investment decisions, particularly in competitive and emerging-market contexts [7]. In addition, prior research in the Iranian capital market has shown that information asymmetry affects firm value and that financial leverage may intensify or modify this relationship [5]. Therefore, the negative coefficient of information asymmetry in the present study confirms that market participants penalize informational opacity and that the reduction of information asymmetry can be considered a value-enhancing mechanism.

The second finding showed that corporate diversification has a positive and significant effect on firm value. This result suggests that diversified firms are valued more favorably by the market, possibly because diversification enables companies to exploit resource synergies, stabilize revenues, reduce dependence on a single product or industry, and allocate internal resources across different business segments. From the perspective of strategic management, diversification may create value when it allows firms to use common assets, capabilities, distribution channels, technologies, or managerial expertise across multiple activities. This interpretation is consistent with the asset-synergy view of firm value, according to which value is created when the combined use of corporate assets generates benefits greater than their individual values [1]. The result is also consistent with prior studies documenting a relationship between diversification and firm value in the Tehran Stock Exchange [9, 10]. Similarly,

evidence from emerging economies indicates that corporate diversification can enhance firm value, especially when firms possess growth opportunities that allow them to allocate resources efficiently across business segments [11].

The positive effect of diversification on firm value may also reflect the characteristics of the Iranian capital market during the period under study. In an environment characterized by economic fluctuations, inflationary pressures, financing constraints, and market uncertainty, firms with more diversified revenue sources may appear more resilient to investors. Diversification can reduce the volatility of cash flows and provide firms with internal flexibility in responding to changes in demand, costs, and industry conditions. Earlier evidence from the Tehran Stock Exchange showed that product diversification is associated with the risk and return of manufacturing firms, indicating that diversification can influence how investors evaluate corporate risk [8]. Furthermore, diversification may be connected with ownership structure and corporate life-cycle stages, suggesting that its value effect depends on the firm's governance structure and organizational maturity [12]. Therefore, the positive coefficient observed in this study indicates that, in the sampled firms, the benefits of diversification, such as synergy, risk distribution, and revenue stabilization, outweighed its potential costs.

The third important result was that earnings management had a negative and significant effect on firm value. This finding indicates that the market responds unfavorably to managerial discretion in reported earnings when such discretion is perceived to reduce the credibility of financial reporting. Earnings management can weaken the informativeness of accounting numbers, reduce earnings quality, and create uncertainty about the sustainability of reported performance. When investors suspect that reported earnings are affected by discretionary accruals or real activities manipulation, they may discount firm value because the reported figures no longer provide a reliable basis for forecasting future cash flows. This finding is consistent with evidence that earnings quality is positively related to firm value and that lower earnings quality can damage valuation credibility [17]. It also aligns with studies showing that accrual and real earnings management affect firm value among companies listed on the Tehran Stock Exchange [18]. In addition, international evidence suggests that real earnings management may impose costs on future performance, particularly when managers manipulate real activities to meet earnings benchmarks [15, 19].

The negative effect of earnings management on firm value is also supported by studies that have examined the market consequences of earnings manipulation in specific sectors and markets. For example, evidence from real estate investment trusts shows that stock market information and earnings management are interrelated, indicating that market participants consider the quality of reported earnings in valuation decisions [16]. Similarly, recent evidence from the Tehran Stock Exchange indicates that earnings management affects firm market value, confirming that investors react to the credibility and reliability of reported earnings [20]. This result is also compatible with research on simultaneous interactions among real earnings management, financial leverage, dividend payout, and firm value, which suggests that earnings management is embedded in broader financial decision-making processes and can influence value through multiple channels [23]. Therefore, the present finding reinforces the view that earnings management is not a neutral accounting choice; rather, it is a value-relevant behavior that may reduce investor confidence and weaken market valuation.

The mediation analysis produced a more nuanced understanding of the relationships among the research variables. The Sobel test showed that earnings management did not mediate the relationship between information asymmetry and firm value. This result can be explained by the fact that although information asymmetry had a direct negative effect on firm value, it did not have a significant effect on earnings management in the second model. In other words, the value-reducing effect of information asymmetry in the present study appears to operate directly

through investor uncertainty, adverse selection risk, and reduced market confidence, rather than indirectly through earnings management. This finding does not necessarily contradict the theoretical expectation that asymmetric information may create opportunities for earnings management; rather, it suggests that in the sampled firms and period, information asymmetry was not sufficient by itself to explain variations in earnings management. This result may be related to the presence of monitoring mechanisms, audit requirements, regulatory disclosure systems, or the possibility that managers used channels other than earnings management to benefit from information advantages. Previous studies have shown that the relationship between information asymmetry and earnings management may depend on corporate governance dimensions and monitoring structures [21]. Therefore, the absence of mediation in this study indicates that information asymmetry affects firm value mainly as an independent valuation risk.

In contrast, earnings management significantly mediated the relationship between corporate diversification and firm value, and the direction of this mediation was negative. The findings showed that diversification had a positive direct effect on firm value, but it also increased earnings management, and earnings management reduced firm value. This pattern suggests a partial suppressing or offsetting mechanism: diversification can create value through synergy, risk reduction, and broader operational opportunities, but it may simultaneously increase organizational complexity and managerial discretion, which can facilitate earnings management. Diversified firms often have more complex segment structures, more internal transactions, and wider managerial discretion in allocating costs, revenues, and resources across business units. Such complexity may create opportunities for discretionary reporting and reduce the transparency of financial statements. This interpretation is consistent with evidence that corporate diversification affects discretionary accrual quality and earnings persistence [13]. It also aligns with research showing that diversification may influence firm performance through information asymmetry, indicating that diversification has informational consequences as well as strategic consequences [14].

The negative mediation effect is particularly important because it shows that diversification is not uniformly beneficial. The direct effect of diversification on firm value was positive, but part of this value-enhancing effect was weakened through earnings management. This means that diversified companies may enjoy market benefits when investors perceive diversification as a source of operational flexibility and synergy; however, if diversification is accompanied by lower reporting transparency or greater discretionary accounting behavior, part of its positive effect may be eroded. This finding is consistent with the broader literature on agency costs, which argues that managerial discretion and inefficient use of resources can reduce corporate performance and value [22]. Diversification can increase internal capital market activity and managerial control over resource allocation; if these processes are not properly monitored, they may increase agency problems. In this sense, earnings management acts as a channel through which the potential costs of diversification become visible in valuation outcomes.

The results regarding control variables also provide useful insight. Firm size had a positive and significant effect on firm value, indicating that larger firms may benefit from stronger market recognition, more stable operations, better access to financing, and greater investor confidence. This finding is consistent with the argument that firms with more assets and broader operational capacity may be more capable of generating sustainable economic benefits. Financial leverage had a negative and significant effect on firm value, suggesting that higher debt levels may be interpreted by the market as a source of financial risk, especially in an environment where financing costs, liquidity constraints, and economic instability can affect corporate survival. This interpretation is aligned with evidence that credit conditions and financial distress influence corporate investment and performance, especially in emerging-market settings [24]. Profitability also showed a negative relationship with firm value, which may

initially appear unexpected. However, this result may indicate that market value, as captured by Tobin's Q, reflects forward-looking expectations rather than current accounting profitability alone. It may also suggest that high current profitability does not necessarily translate into higher market valuation if investors question its sustainability, quality, or growth implications.

Overall, the findings of this study contribute to the literature by showing that firm value is shaped by a combination of information, strategy, and reporting behavior. Information asymmetry directly reduces firm value, confirming the market penalty associated with opacity. Corporate diversification directly increases firm value, indicating that investors value the strategic benefits of diversified operations. Earnings management directly reduces firm value, confirming that lower reporting credibility damages market valuation. More importantly, earnings management does not explain the effect of information asymmetry on firm value, but it does explain part of the relationship between diversification and firm value. This distinction is theoretically meaningful because it shows that the same mediating variable may operate differently depending on the nature of the independent variable. Information asymmetry appears to influence firm value mainly through market uncertainty, whereas diversification affects firm value both directly through strategic benefits and indirectly through the reporting risks created by organizational complexity.

The present study has several limitations. First, the statistical sample was limited to companies listed on the Tehran Stock Exchange, and therefore the findings may not be fully generalizable to unlisted firms, financial institutions, or companies operating in other institutional environments. Second, the study covered the period from 2015 to 2024, and the results may have been influenced by macroeconomic instability, inflation, sanctions, market volatility, and regulatory changes during this period. Third, the measurement of earnings management was based on the modified Jones model, and although this model is widely used, it may not capture all forms of managerial discretion, especially real earnings management. Fourth, corporate diversification was measured using revenue distribution across segments, while other forms of diversification, such as geographic diversification, technological diversification, or related and unrelated diversification, were not separately examined. Fifth, the study used archival financial data, and therefore qualitative aspects of managerial motivation, board oversight, ownership behavior, and disclosure culture were not directly observable.

Future studies are suggested to extend the present model by distinguishing between accrual-based earnings management and real earnings management, because these two forms may have different implications for firm value. Researchers may also examine whether the mediating role of earnings management differs between related and unrelated diversification, or between industrial, service, and technology-oriented firms. Future research can include corporate governance variables such as board independence, institutional ownership, audit quality, ownership concentration, and internal control quality as moderators in the relationships among information asymmetry, diversification, earnings management, and firm value. In addition, comparative studies between emerging and developed markets can clarify whether the results are specific to the Iranian institutional environment or reflect broader capital-market mechanisms. Future studies may also use dynamic panel models, structural equation modeling, or longitudinal mediation approaches to better identify causal paths and reciprocal effects among the variables.

From a practical perspective, the findings suggest that corporate managers should reduce information asymmetry by improving the quality, timeliness, and transparency of financial and nonfinancial disclosures. Managers of diversified firms should also recognize that diversification can increase firm value only when it is accompanied by effective internal control, transparent segment reporting, and disciplined resource allocation.

Investors and analysts are advised to evaluate not only whether a firm is diversified, but also whether its diversification structure increases reporting complexity or creates opportunities for earnings management. Regulators and standard setters should strengthen disclosure requirements related to segment information, related-party transactions, accrual quality, and managerial assumptions in financial reporting. Audit committees and external auditors should pay particular attention to diversified firms because organizational complexity may increase the risk of discretionary reporting. Overall, the practical implication of the study is that value creation through diversification and transparency depends on the credibility of financial reporting and the ability of governance mechanisms to limit opportunistic earnings management.

Authors' Contributions

Authors equally contributed to this article.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

Acknowledgments

Authors thank all participants who participate in this study.

Conflict of Interest

The authors report no conflict of interest.

Funding/Financial Support

According to the authors, this article has no financial support.

References

[1] M. Eqbal, F. Nasirzadeh, and R. Hessarzadeh, "Determining firm value using an asset-synergy-based approach," *Financial Accounting Knowledge,* vol. 7, no. 4, pp. 25-56, 2020.
[2] S. Fathi, B. Bakhtiari, and H. R. Moazzeni, "The effect of information asymmetry on the stock market quality of companies," *Financial Management Perspective,* vol. 5, no. 12, pp. 41-63, 2015.
[3] P. P. Momtaz, "Initial coin offerings, asymmetric information, and loyal CEOs," *Small Business Economics,* vol. 57, no. 2, pp. 975-997, 2021, doi: 10.1007/s11187-020-00335-x.
[4] I. K. Santra, I. W. Wirga, I. B. Sanjaya, I. K. Yasa, and W. Waelan, "How the information asymmetry determine firm value? A case study on real estate company in IDX 2020-2022," *International Journal of Business, Economics and Management,* vol. 6, no. 2, pp. 93-98, 2023, doi: 10.21744/ijbem.v6n2.2109.
[5] S. Latifi and R. Alikhani, "The effect of information asymmetry on firm value with the moderating role of financial leverage," *New Research Approaches in Management and Accounting,* vol. 3, no. 8, pp. 231-247, 2019.
[6] A. Momeni and M. Saljouqi, "A study of the effect of information asymmetry on firm performance using Tobin's Q ratio," *Accounting and Management Perspective,* vol. 6, no. 82, pp. 33-46, 2023.
[7] H. Satt, Y. Chetioui, O. Ouahidi, V. Bodolica, and D. Lamiri, "Capital expenditure and firm value in the MENA region: The role of market competition and information asymmetry," *Macroeconomics and Finance in Emerging Market Economies,* vol. 18, no. 1, pp. 138-157, 2025, doi: 10.1080/17520843.2022.2163564.
[8] R. Tehrani and H. Vahed Ahmadian, "A study of the relationship between product diversification and the risk and return of shares of manufacturing companies listed on the Tehran Stock Exchange," *Business Research Journal,* no. 83, pp. 187-212, 2006.
[9] A. Rahmani and S. Ahmadi, "The relationship between corporate diversification and firm value," *Accounting Research,* no. 15, pp. 19-33, 2016.

[10] A. Rahmani and S. Ahmadi, "The relationship between corporate diversification and firm value," *Accounting and Social Interests,* vol. 7, no. 2, pp. 19-34, 2017.
[11] R. H. Setianto, "Corporate diversification and firms' value in emerging economy: The role of growth opportunity," *Journal of Asian Business and Economic Studies,* vol. 27, no. 2, pp. 195-207, 2020, doi: 10.1108/JABES-08-2019-0075.
[12] Z. Hajiha and M. Hooshyar, "Corporate diversification and ownership structure during different stages of the corporate life cycle," *Journal of Accounting Knowledge,* vol. 9, no. 4, pp. 217-237, 2018.
[13] E. Molla and E. Rajaeizadeh Harandi, "A study of the effect of corporate diversification on discretionary accrual quality and earnings persistence: Testing the diversification effect hypothesis," *Accounting and Management Perspective,* vol. 4, no. 48, pp. 67-81, 2021.
[14] P. Veysi and M. Qajarbeygi, "A study of the effect of diversification on firm performance considering the mediating role of information asymmetry," *New Research Approaches in Management and Accounting,* vol. 5, no. 17, pp. 131-149, 2021.
[15] K. Gunny, "The relation between earnings management using real activities manipulation and future performance: Evidence from meeting earnings benchmarks," *Contemporary Accounting Research,* vol. 27, no. 3, pp. 855-888, 2010, doi: 10.1111/j.1911-3846.2010.01029.x.
[16] B. Ambrose and X. Bian, "Stock market information and REIT earnings management," *Journal of Real Estate Research,* vol. 32, no. 1, pp. 101-137, 2010, doi: 10.1080/10835547.2010.12091271.
[17] I. Noravesh, A. Momeni Yanseri, and M. Safari Gerayli, "Earnings quality and firm value: Evidence from Iranian companies," *Financial Accounting Research,* vol. 7, no. 4, pp. 1-18, 2015.
[18] Y. Nobakht and M. Ajar, "The effect of accrual and real earnings management on firm value: A study of companies listed on the Tehran Stock Exchange," *Financial Research,* vol. 22, no. 4, pp. 568-593, 2020.
[19] A. J. Simamora and M. M. Muqorobin, "Real earnings management and firm value: Examination of costs of real earnings management," *Jurnal Akuntansi,* vol. 26, no. 2, pp. 240-262, 2022, doi: 10.24912/ja.v26i2.935.
[20] Z. Jamali and H. Ahmadi, "A study of the effect of earnings management on firm market value: Evidence from the Tehran Stock Exchange," *Accounting and Management Perspective,* vol. 7, no. 90, pp. 123-136, 2024.
[21] S. Rezaei, B. Seyedinejad, and J. Shakeri, "A study of the relationship between information asymmetry and earnings management with emphasis on corporate governance dimensions," *Accounting and Management Perspective,* vol. 6, no. 83, pp. 144-162, 2023.
[22] H. Mahmoudabadi, G. Mahdavi, and M. Fereydouni, "A study of the effect of free cash flows and agency costs on the performance of companies listed on the Tehran Stock Exchange," *Accounting Knowledge,* vol. 4, no. 12, pp. 111-131, 2013.
[23] S. Hamedi, H. R. Kordlouei, F. Ahmadi, M. H. Khanmohammadi, and M. Ghasemi, "A study of simultaneous reciprocal effects among real earnings management, financial leverage, dividend payout, and firm value," *Investment Knowledge,* vol. 14, no. 55, pp. 655-674, 2025.
[24] K. Mannasoo, P. Maripuu, and A. Hazak, "Investments, credit, and corporate financial distress: Evidence from Central and Eastern Europe," *Emerging Markets Finance and Trade,* vol. 54, no. 3, pp. 677-689, 2017, doi: 10.1080/1540496X.2017.1300092.
[25] D. Foroughi, A. Rahrovi Dastjerdi, and F. Sepahi, "The effect of firm value and accounting profit on capital expenditures: The moderating role of internal information quality," *Journal of Accounting Knowledge,* vol. 13, no. 2, pp. 31-51, 2022.