The Impact of Corporate Governance on Accounting Conservatism in the Financial Statements of Justice Shareholders

Thamer Kadhim Al-Abedi
Ali Mahmood Hasen
Hussein Ali Mohaisen
Hakeem Hammood Flayyih

DOI: https://doi.org/10.37178/ca-c.23.1.025

Thamer Kadhim Al-Abedi, *Lecturer at Department of Accounting, College of Administration and Economics, Mustansiriyah University, Iraq.*
Email: thamer_kadhim@uomustansiriyah.edu.iq

Ali Mahmood Hasen, *Madenat Alelem university college, Baghdad, Iraq.*
Email: alimahmood@mauc.edu.iq

Hussein Ali Mohaisen, *Lecturer at Department of Control and Internal Auditing, Mustansiriyah University Iraq.*
E-mail: hussein_aslan85@uomustansiriyah.edu.iq

Hakeem Hammood Flayyih, *Ph.D. Candidate at Institut Supérieur de Gestion de Tunis, UNIVERSITY OF TUNIS, TUNISIA.*
E-mail: hakeem.hmood@coadec.uobaghdad.edu.iq

Abstract

Conservatism creates a system that prevents overpayments to managers and reduces the conflict between the interests of shareholders and managers. On the other hand, conservatism over corporate governance, while reducing opportunistic management payments, causes the manager to report losses from the sale of assets and also stops operations, and prevents the manager from continuing to invest in projects with negative net worth. Therefore, the aim of this study was to determine the impact of corporate governance on accounting conservatism in the financial reports of justice shareholders. The statistical population of the present study is the companies listed on the Iraq Justice Stock Exchange and using the elimination sampling method, 30 companies were selected as the research sample during the period 2013 to 2020. Using multivariate regression models, the results indicate that there is no relationship between corporate governance mechanisms and conservatism in financial reporting.

Keywords**:** Corporate Governance, Conservatism, Accounting, Financial Reporting

Introduction

Corporate governance was raised as an issue that focused on corporate strategy and shareholder rights, and its role was to reduce the conflict between the interests of shareholders and managers. This conflict of interest is often related to agency issues, which arises from two main reasons: the first is the different goals and preferences of the participants in the company and the second is the incomplete information of the participants about each other's performance, knowledge and preferences [1]. In other words, from the theory of agency, the presence of non-executive and independent managers in the board of directors of companies that have the necessary expertise, independence and legal power to monitor the performance of the company, can be a potential and powerful component for corporate governance[2]. On the other hand, the existence of some institutional shareholders, such as equity shares [3, 4]. as another mechanism of corporate governance, can align the interests of shareholders and thus increase the influence of shareholders on management. [5]. It was noted that the issue of focus on corporate ownership can also reduce agency issues because major shareholders can have better control and impact on management performance by having sufficient information and knowledge[6, 7].

On the other hand, in recent years, one of the important issues that has received much attention has been the issue of representation and motivation of managers to change and transfer the wealth and value of the company in their favor (Mohammed et al., 2021). In fact, the issue of accounting conservatism is one of the features of financial reporting that in the framework of accounting principles and concepts plays an important role in limiting the optimistic behaviors of managers as information providers and estimating the minimum income by investors and creditors as the most important users is[8, 9].

In the accounting literature, the roots of accounting conservatism are explained by four economic factors: 1) Contractual interpretation of conservatism 2) Interpretation of conservative lawsuits 3- Interpretation of conservative legislation and 4) Tax interpretation of conservatism[10]. It should also be noted that conservative reporting can play an important role in reducing representation issues and information asymmetry [11]In other words, conservatism in financial reporting can be an important and alternative criterion for some governance mechanisms [12].The company is useful, because conservative practices in the optimistic behavior of managers, reduces agency issues and can neutralize and eliminate the conservative behavior of the manager and limit the opportunistic payments of the manager to himself as much as possible to increase the value. The company's finding to increase the division and welfare of all groups among all parties to the contract, which in this sense is conservatism as an effective contractual mechanism [13].

In the present study, the ownership structure of companies and the composition of the board of directors are used as actors in the corporate governance scene, which includes the variables: ownership of justice shareholders, concentration of ownership and independence of board members. So to answer the question of whether there is a relationship between corporate governance over the conservatism of accounting and the cost of equity? In order to examine the theoretical relationship between institutional shareholders and conservatism, one should refer to the conservative contractual explanation, in which the demand for conservatism in contracts arises from asymmetric returns between the parties to the contract and information asymmetries between them [5]. Owners and managers of a company have asymmetric returns on their net assets. Lenders and shareholders each have different interests in the distribution of corporate returns, and therefore lenders anticipate activities that transfer wealth to shareholders and

bind borrowing agreements to conditions that limit such transfers [11]. Therefore, borrowing agreements lead to conservative procedures in corporate reporting, so that the company's wealth is divided among creditors [14].

There is also a [15]and his colleagues (2009) conducted extensive research on the necessity or non-necessity of conservatism in companies with a high concentration of ownership at the international level [15]. They stated that in countries where there are strong laws protecting the rights of shareholders, including equity, and in which the ownership structure of the company has a high degree of concentration of ownership, there is no need for conservative financial reporting, but in countries with weak protection laws [16]) .In order to realize the rights of shareholders, especially small shareholders, and the ownership structure of the company in these countries has a high degree of concentration of ownership, there is an urgent need to apply conservative procedures in financial reporting [17]

Corporate board is also one of the mechanisms of corporate governance and according to [18] plays a pivotal role in corporate governance, so that an effective board leads the corporate management to apply conservative practices [19]. To prevent optimistic management behaviors and increase the risk of lawsuits against the company , In the meantime; the independence of the board members is an important characteristic for evaluating the effectiveness of the board. Past research shows that the ratio of independent managers to manager oversight is effective in preparing financial reports. For example, [17] ; [20] found that companies with a larger share of external executives on the board were more conservative, and other studies found that high board independence was more likely to be fraudulent. [21] and reduces profit management (Klein, 2002) in the financial statements [6].

Research Methodology

The research hypotheses are formulated as follows:

H1: There is a relationship between accounting conservatism and the degree of ownership of institutional shareholders.

H2: There is a relationship between accounting conservatism and the degree of concentration of ownership.

H3: There is a relationship between accounting conservatism and the degree of independence of board members.

The population of this research is the companies listed on the Justice Stock Exchange in Iraq and the period under study is 2013 to 2020. In this research, the systematic elimination method was used to reach the sample and companies with trading interruptions of more than 6 months and investment and financial intermediation companies were eliminated and finally 60 companies were selected as the research sample. Below are the models. The following models have been used to test the research hypotheses.

Measuring the variables of Basso model

The tendency to speed up the identification of losses and delay the identification of profits represents conservatism from the perspective of profit and loss. Basu model is as follows (Roychowdhury & Watts, 2007):

$$E_{i,t} \mid P_{i,t-1} = \alpha + \beta_1 D_{i,t} + \beta_2 R_{i,t} + \beta_3 D_{i,t} \times R_{i,t}$$

Such as:

$E_{i,t}$ = Profit before Company i's contingent items in year t

$P_{i,t-1}$ = Capital market value of company i in year t

$R_{i,t}$ = Annual stock returns of company i in year t

$D_{i,t}$ = A virtual variable 0 and 1 whose value is equal to one and otherwise zero.

β_2 = Measures the response of profit to positive returns.

$\beta_2 + \beta_3$ = Measures the response of profit to negative returns.

Conservatism means $\beta_2 + \beta_3 > \beta_2$ in other words $\beta_3 > 0$.

The Basso model has been tested and evaluated in many studies, the results of which indicate a negative relationship between this criterion and the M / B ratio (an old and well-known criterion for conservatism), so the results This led to the questioning of the validity of the Basso model. After criticizing the Basu criterion, Roicho Dari and Watts in their 2006 experimental study showed that if the period for estimating the temporal asymmetry of earnings increases from one period to several, the relationship between the temporal asymmetry of earnings and the ratio The M / B will be positive at the end of that long period [22]. Therefore, the results of [23] led to the adjustment of the Basso criterion as a time asymmetry of multi-period profits. In this study, using the following model, the relationship between some mechanisms of corporate governance and conservatism has been investigated:

$$E_{t-j,t} \mid P_{t-j,t} = \alpha + \beta_1 D_t + \beta_2 R_{t-j,t} + \beta_3 (Rt - j,t \times Attrib_t^k) + \beta_4 (R_{t-j,t} \times MB_t) +$$

$$\beta_5 (R_{t-j,t} \times Lev_t) + \beta_6 (R_{t-j,t} \times Size_t) + \beta_7 (D_t \times R_{t-j,t}) + \beta_8 (D_t \times R_{t-j,t} \times Attrib_t^k) +$$

$$\beta_9 (D_t \times R_{t-j,t} \times MB_t) + \beta_{10} (D_t \times R_{t-j,t} \times Lev_t) + \beta_{11} (D_t \times R_{t-j,t} \times Size_t)$$

Such as:

$E_{t-j,t}$ = Represents the operating profit accumulated during the years t-j to t. So that j changes from zero to 2, and when. = J, only represents the profit of year t (one-year model) and when 1 = j, represents the accumulated profit of year t and year t-1 (model two). Years) and when j = 2, represents the accumulated profit for the years t, t-1 and t-2 (the three-year model).

$P_{t-j,t}$ = Indicates the stock market price at the end of the year t-j-1 or the beginning of the year t-j.

$R_{t-j,t}$ = Indicates the accumulated return during the years t-j to t. So that z changes from 0 to 2.

$Attrib_t^k$ = In hypothesis k (first, second and third), respectively, is equivalent to the level of ownership of institutional shareholders, the degree of concentration of ownership and the degree of independence of the members of the board of directors in year t.

MB_t = The control variable is the ratio of market value to the book value of the company's capital in year t

Lev_t = Company lever control variable in year t

$Size_t$ = Company size control variable in year t

In this study, the following variables have been used as control variables; Ratio of market value to book value of capital: Here this ratio is calculated using the market value of capital divided by the book value of capital at the end of the financial period [8]. Leverage: In this study, using the sum of current and long-term debts at the end of the

financial period, the market capital value of the first financial period is calculated. Company size: In this study, the capital market value at the end of the financial period is calculated using the natural logarithm.

The results and Testing hypotheses

The first hypothesis

The following model has been used to test this hypothesis:

$$E/P = \alpha + \beta_1 D + \beta_2 R + \beta_3 (R \times Ins) + \beta_4 (R \times MB) + \beta_5 (R \times Lev) + \beta_6 (R \times Size)$$

$$\beta_7 (D \times R) + \beta_8 (D \times R \times Ins) + \beta_9 (D \times R \times MB) + \beta_{10} (D \times R \times Lev) + \beta_{11} (D \times R \times Size)$$

In this model, Ins is equivalent to the amount of ownership of institutional shareholders.

The test result of the first hypothesis based on model estimation (1, 2 and 3 year estimates) is given in Table 1. To avoid prolonging the article, it is pointed out that in all three periods of model estimation, the value of the coefficient, which shows the difference between the sensitivity of profit to negative return and positive return, was greater than zero and significant, which indicates this. That is, the profit response to negative returns is faster than the profit response to positive returns.

As can be seen in Table 1, the P-Value statistic for the coefficient in all three periods of model estimation is 5% higher than the acceptable error level, so the existence of a significant relationship between institutional shareholder ownership and conservatism is not confirmed, and the hypothesis First, the research is rejected and according to the coefficient and (0.048) and P-Value statistics for this coefficient (0.013) in the two-year estimation of the model, at 95% confidence level, there is a positive relationship between the control variable of market value to book value and conservatism. There is. Also, considering the coefficient (-0.100) and P-value of the statistic for this coefficient (0.003) in the three-year time estimate of the model, at the 95% confidence level, there is a negative relationship between the control variable of leverage and conservatism. The coefficient and P-Value Statistics for this coefficient in all three model estimation periods show a negative relationship between firm size control variable and conservatism at 95% confidence level. This means that large companies are less inclined to conservative reporting. Despite the fact that in Iraq, institutional shareholders are mostly government and have a lot of leverage to monitor the performance of management, but the results of this study showed that institutional shareholders due to the lack of conflict between their own interests and the company's management and desire. Do not participate in financial reporting to pressure management to apply conservative practices.

Table 1

The result of the First hypothesis

Variable	J=0 One-year model	J=1 Two-year model	J=2 Three-year model
α	0.161 (12.473)…	0.335 (16.375)…	0.505 (19.485)…
$\beta_1(D)$	0.028 (1.219)	0.052 (1.289)	0.026 (-2.160)
$\beta_2(R)$	-0.229 (-1.102)	-0.271 (-1.449)	-0.386 (-2.160) …
$\beta_3(R \times Ins)$	0.136 (1.778).	0.076 (0.961)	0.010 (0.145)

$\beta_4(R \times MB)$	-0.002 (-0.987)	-0.001 (-1.017)	-0.002 (-1.642)
$\beta_5(R \times Lev)$	-0.001 (-0.175)	0.019 (3.605)…	0.025 (4.560)…
$\beta_6(R \times Size)$	0.022 (1.278)	0.020 (1.294)	0.029 (2.135)..
$\beta_7(D \times R)$	2.057 (2.159) …	4.717 (3.941) …	6.626 (4.229) …
$\beta_8(D \times R \times Ins)$	-0.054 (-0.177)	0.293 (0.685)	0.490 (0.789)
$\beta_9(D \times R \times MB)$	0.025 (1.883).	0.048 (2.502)..	0.080 (1.765).
$\beta_{10}(D \times R \times Lev)$	-0.040 (-1.152)	-0.010 (-0.453)	-0.100 (-2.976)…
$\beta_{11}(D \times R \times size)$	-0.175 (-2.107)..	-0.435 (-4.127)…	-0.623 (-4.599)…
Statistics E The significance level Camera Statistics-Watson	F=12.770 p-Value=0.000 DW=1.74	F=5.646 p-Value=0.000 DW=1.720	F=6.182 p-Value=0.000 DW=1.749

The second hypothesis

The following model has been used to test this hypothesis (Al-Taie et al., 2017) :

$$E/P = \alpha + \beta_1 D + \beta_2 R + \beta_3(R \times Own) + \beta_4(R \times MB) + \beta_5(R \times Lev) + \beta_6(R \times Size) +$$

$$\beta_7(D \times R) + \beta_8(D \times R \times Own) + \beta_9(D \times R \times MB) + \beta_{10}(D \times R \times Lev) + \beta_{11}(D \times R \times Size)$$

In this model, Own is equivalent to the degree of concentration of ownership. The test result of the second hypothesis based on model estimation (1, 2 and 3 year estimates) is presented in Table 2.

Table 2

The result of the second hypothesis

Variable	J=0 One-year model	J=1 Two-year model	J=2 Three-year model
α	0.162 (12.553)…	0.336 (16.419)…	0.505 (19.498)…
$\beta_1(D)$	0.027 (1.164)	0.051 (1.246)	0.025 (0.500)
$\beta_2(R)$	-0.264 (-1.217)	-0.248 (-1.321)	-0.383 (-2.173) …
$\beta_3(R \times Own)$	0.091 (1.398)	0.010 (0.151)	0.006 (0.100)
$\beta_4(R \times MB)$	-0.002 (-1.055)	-0.001 (-0.996)	-0.002 (-1.645)
$\beta_5(R \times Lev)$	-0.003 (-0.512)	0.020 (3.524)…	0.025 (4.325)…
$\beta_6(R \times Size)$	0.030 (1.626).	0.021 (1.432)	0.029 (2.131)..

$\beta_7(D\times R)$	2.125 (2.234) ..	4.788 (4.020) …	6.842 (4.449) …
$\beta_8(D\times R\times Own)$	0.041 (1.153)	0.245 (0.701)	0.439 (0.947)
$\beta_9(D\times R\times MB)$	0.025 (1.903).	0.048 (2.494)..	0.86 (1.940).
$\beta_{10}(D\times R\times Lev)$	-0.041 (-1.158)	-0.013 (-0.575)	-0.104 (-3.078)…
$\beta_{11}(D\times R\times size)$	-0.186 (-2.224)..	-0.443 (-4.116)…	-0.631 (-4.638)…
Statistics E The significance level Camera Statistics-Watson	F=12.641 P-Value=0.000 DW=1.752	F=5.526 P-Value=0.000 DW=1.731	F=6.211 P-Value=0.000 DW=1.748

In Table 2 P-Value, the statistic for the coefficient in all three periods of model estimation is 5% higher than the acceptable error level, so the existence of a significant relationship between ownership concentration and conservatism is not confirmed, and the second hypothesis of the research is rejected.

According to research conducted in Iraq, the Iraqi justice stock market has no legal structure and has the necessary facilities to support small shareholders and has a very centralized ownership structure , so in this type of companies need more conservative reporting. Yes, but the results of this study did not show this.

The third hypothesis

The following model has been used to test this hypothesis:

$$E/P=\alpha+\beta_1 D+\beta_2 R+\beta_3(R\times Ind)+\beta_4(R\times MB)+\beta_5(R\times Lev)+\beta_6(R\times Size)+$$

$$\beta_7(D\times R)+\beta_8(D\times R\times Ind)+\beta_9(D\times R\times MB)+\beta_{10}(D\times R\times Lev)+\beta_{11}(D\times R\times Size)$$

In this model, Ind is equivalent to the degree of independence of board members. The test result of the third hypothesis based on model estimation (1, 2 and 3 year estimates) is presented in Table 3.

In Table 3, P-Value statistics for the coefficient in all three periods of model estimation is 5% higher than the acceptable error level, so the existence of a significant relationship between board independence and conservatism is not confirmed and the third hypothesis of the research is rejected. have mentioned conservatism as a measure of quality in financial reporting, So the results of this study can be evidence that the composition of the board of directors in Iraq cannot be an important factor in determining the quality of financial reporting. Also, non-executive managers have not been able to persuade the company's management to apply conservative financial reporting practices [24].

Table 3

The result of the third hypothesis

Variable	J=0 One-year model	J=1 Two-year model	J=2 Three-year model
α	0.162 (12.678)…	0.335 (16.401)…	0.504 (19.443)…
$\beta_1(D)$	0.028 (1.236)	0.041 (1.006)	0.027 (0.516)

$\beta_2(R)$	-0.585 (-2.411) ..	-0.365 (-1.793) .	-0.445 (-2.404) ..
$\beta_3(R \times Ind)$	-0.270 (-3.148) …	-0.105 (-1.404)	-0.059 (-0.929)
$\beta_4(R \times MB)$	-0.003 (-1.479)	-0.001 (-1.024)	-0.002 (-1.647)
$\beta_5(R \times Lev)$	-0.007 (-1.311)	0.018 (3.220)…	0.023 (4.084)…
$\beta_6(R \times Size)$	0.76 (3.168) …	0.038 (1.992)…	0.038 (2.275) ..
$\beta_7(D \times R)$	2.468 (2.588) …	4.933 (4.148) …	6.923 (4.494) …
$\beta_8(D \times R \times Ind)$	0.188 (0.607)	0.446 (1.124)	0.041 (0.079)
$\beta_9(D \times R \times MB)$	0.026 (1.984) ..	0.048 (2.523) ..	0.087 (1.952) .
$\beta_{10}(D \times R \times Lev)$	-0.036 (-0.938)	-0.001 (-0.011)	-0.098 (-2.783) …
$\beta_{11}(D \times R \times size)$	-0.224 (-2.663) …	-0.465 (-4.304) …	-0.623 (-4.421) …
Statistics E The significance level Camera Statistics-Watson	F = 13.624 P-Value = 0.000 DW = 1.7	F = 5.757 P-Value = 0.000 DW = 1.72	F= 6.202 P-Value = 0.000 DW =1.7

Conclusion:

In this study, increasing the wealth of shareholders and the value of the company requires controlling and reducing agency costs. One of the most important tools to control and reduce agency costs is to use the mechanisms of corporate governance. As mentioned of the previous sections, conservatism can be useful to the corporate governance system in various ways and can be used as an effective mechanism to strengthen the corporate governance system. According to Basu's definition, conservatism means that the accounting profit response is more timely for bad news, which indicates the sensitivity of accounting profit to negative stock returns to positive stock returns at the same time by the slope of the inverse regression line. Corporate ownership structure and board composition were considered as corporate governance mechanisms, and using multivariate regression models, no relationship was found between corporate ownership structure and board composition with conservatism. the results show that the status of ownership structure and composition of board members in Iran is not an important factor in determining the quality of financial reporting. Also, non-executive shareholders and managers have not been able to persuade the company's management to apply conservative financial reporting practices. So, reviewing previous research, it is observed that a positive relationship between strong corporate governance mechanisms and conservatism has been seen and conservatism has been mentioned as an effective mechanism of corporate governance, but in the present study there is a relationship between mechanisms Corporate governance and conservatism were not observed.

Suggestions

Non-executive directors of companies are encouraged to become more familiar with their duties and roles so that they can play an effective role in corporate governance. Lenders are advised to pay more attention to borrowing agreements between themselves and companies with high institutional ownership and leverage. It is also suggested that the relationship between conservatism and other characteristics of the board, including the financial expertise of the board members and the number of meetings of the board members, etc. be examined.

Acknowledgments

The authors would like to thank mustansiriyah university (www.uomustansiriyah.edu.iq) Baghdad – Iraq for its support the present work

References

1. Abdulrahman, A.A., M. Rasheed, and S. Shihab. *The Analytic of image processing smoothing spaces using wavelet*. IOP Publishing.
2. Roberts, J., T. McNulty, and P. Stiles, *Beyond agency conceptions of the work of the non-executive director: Creating accountability in the boardroom.* British journal of management, 2005. **16**: p. S5-S26.DOI: https://doi.org/10.1111/j.1467-8551.2005.00444.x.
3. Ali, S.I. and H.H. Flayyih, *The Role of the External Audit in Assessing Continuity of Companies under the Financial Crisis: An Applied Study in the Iraqi Banks Listed in the Iraq Stock Exchange for the Period 2016-2019 El Papel de la Auditoría Externa en la Evaluación de la Continu. 39 (November), 1–20.* Estudios de economía aplicada, 2021. **39**(11): p. 17.DOI: https://doi.org/10.25115/eea.v39i11.5925.
4. Ali, S.K., Ali and A. Abed, *Joint audit and the financial reporting quality: empirical study on Iraqi voluntary joint audits. International Journal of Innovation, Creativity and Change, 7(8), 343-359.*2019 ..
5. Byard, D., Y. Li, and J. Weintrop, *Corporate governance and the quality of financial analysts' information.* Journal of Accounting and Public policy, 2006. **25**(5): p. 609-625.DOI: https://doi.org/10.1016/j.jaccpubpol.2006.07.003.
6. Chi, W., C. Liu, and T. Wang, *What affects accounting conservatism: A corporate governance perspective.* Journal of contemporary accounting & economics, 2009. **5**(1): p. 47-59.DOI: https://doi.org/10.1016/j.jcae.2009.06.001.
7. Thaiprayoon, K., T. Sriyakul, and K. Jermsittiparsert, *Information sharing in OBOR projects to ensure better performance: mediating role of dynamic manufacturing capability.* International Journal of Supply Chain Management, 2019. **8**(5): p. 769.
8. Hameed, M.K., T.K. Al-Abedi, and Z.K. Abass, *The Effect of Hidden Quality Cost on Supply Chain Management of Sales and Market Share , International Journal of Supply Chain Management . 7(1). pp. 526-534.* 2019.
9. Triana, A.C., S.L. Lasprilla, and F.A. Arenas, *Supply chain decision making: A system dynamics approach.* Sistemas & Telemática, 2016. **14**(37): p. 73-86.DOI: https://doi.org/10.18046/syt.v14i37.2243.
10. Khan, M.A., et al., *Structural growth, rumen development, and metabolic and immune responses of Holstein male calves fed milk through step-down and conventional methods.* Journal of Dairy Science, 2007. **90**(7): p. 3376-3387.DOI: https://doi.org/10.3168/jds.2007-0104.
11. Klein, A., *Audit committee, board of director characteristics, and earnings management.* Journal of accounting and economics, 2002. **33**(3): p. 375-400.DOI: https://doi.org/10.1016/S0165-4101(02)00059-9.
12. Maseer, R.W. and H.H. Flayyih, *A Suggested Approach to Use a Decision Tree to Rationalize the Decision of Accounting Information Users under the Risk and Uncertainty.* Estudios de economía aplicada, 2021. **39**(11): p. 11.DOI: https://doi.org/10.25115/eea.v39i11.5877.
13. Agrawal, A. and S. Chadha, *Corporate governance and accounting scandals.* The Journal of Law and Economics, 2005. **48**(2): p. 371-406.DOI: https://doi.org/10.1086/430808.

14. Krishnan, J. *Corporate governance and internal control: An empirical analysis, 161(13), 1660-1668.*
15. Song, F., *Ownership structure and accounting conservatism: A literature review.* Modern Economy, 2015. **6**(04): p. 478.DOI: https://doi.org/10.4236/me.2015.64046.
16. Ball, R. and L. Shivakumar, *Earnings quality in UK private firms: comparative loss recognition timeliness.* Journal of accounting and economics, 2005. **39**(1): p. 83-128.DOI: https://doi.org/10.1016/j.jacceco.2004.04.001.
17. Beekes, W., P. Pope, and S. Young, *The link between earnings timeliness, earnings conservatism and board composition: evidence from the UK.* Corporate Governance: An International Review, 2004. **12**(1): p. 47-59.DOI: https://doi.org/10.1111/j.1467-8683.2004.00342.x.
18. Fama, E.F. and M.C. Jensen, *Separation of ownership and control.* The journal of law and Economics, 1983. **26**(2): p. 301-325.DOI: https://doi.org/10.1086/467037.
19. Dargenidou, C., S. McLeay, and I. Raonic, *Ownership, investor protection and earnings expectations.* Journal of Business Finance & Accounting, 2007. **34**(1-2): p. 247-268.DOI: https://doi.org/10.1111/j.1468-5957.2006.00663.x.
20. Ahmed, A. and S. Duellman, *Evidence on the role of accounting conservatism in corporate governance.* 2007.
21. Cheeseman, P.C. and J.C. Stutz, *Bayesian classification (AutoClass): theory and results.* Advances in knowledge discovery and data mining, 1996. **180**: p. 153-180.
22. Chalaki, P., H. Didar, and M. Riahinezhad, *Corporate governance attributes and financial reporting quality: Empirical evidence from Iran.* International Journal of Business and Social Science, 2012. **3**(15).
23. Raghunathan, S., C.S. Tang, and X. Yue, *Analysis of the bullwhip effect in a multiproduct setting with interdependent demands.* Operations Research, 2017. **65**(2): p. 424-432.DOI: https://doi.org/10.1287/opre.2016.1571.
24. Mohaisen, H.A., T.K. Al-Abedi, and H.S. Saeed, *The Impact of Accounting Disclosure According to Integrated Business Reports on the Value of the Company and the Cost of Capital: An Empirical Study in Iraq Stock Exchange.* Technology, 2021.DOI: https://doi.org/10.14704/WEB/V18SI05/WEB18232.