THE IMPACT OF FINANCIAL STRUCTURE ON ACCRUAL EARNINGS MANAGEMENT ON NON FINANCIAL COMPANIES LISTED ON ASE

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ABSTRACT

Investors and capital providers are interested in the financial information issued by companies to make investment decisions. Meanwhile, managers may adopt accrual earnings management to improve the company's image. Thus, it is important to examine the factors that affect earnings management. Therefore, the motivation for this study was the investigations in Jordan related to the impact of financial structure on accrual earnings management were few and rare. The current investigation depends on panel data approach using the annual reports for 88 companies listed on ASE (industrial and services) sectors from 2009 to 2019. The independent variable, financial structure (FS), measured by financial structure ability (FSA), debt repaying ability (DRA) and cash flow from financing activities (CASHF). The independent variable, accrual-based earnings management (AEM), measured by performance approach. The results of multiple regression analysis of plate data showed a significant and negative impact of FSA and DRA on AEM, while CASHF has no impact on AEM.

Keywords: Financial Structure, Agency Theory, Accrual Earnings Management, Jordan.

JEL: M40, G32, G41.

INTRODUCTION

Financial reports provide important information for investors and decision-makers, thus investors and decision-makers are interested in the quality of these reports. Information quality plays an important role in bridging the gap between those who provide financial information (management) and those who use it (stakeholders) (Brown & Caylor, 2009). Company management teams are responsible for preparing financial reports according to accounting standards, but the flexibility of these standards allow managers to abuse their responsibilities and distort the information disclosed (Al-Thuneibat et al., 2011).

The application of earnings management policies by managers is one of the misleading and distorted financial information sources, where managers maximize or reduce profits, including income smoothing in accordance to the wishes of the manager (Watts & Zimmerman, 1986). Earnings management is an attempt to manipulate accounting information, with the manager choosing methods of accounting without conflict with generally accepted accounting principles. Earnings management practices are implemented by company managers to report accounting outcomes that do not match those that are actually done, for opportunistic reasons. CEO manipulates earnings to obtain market and create a reputation for specific goals (Zhang et al., 2013) Previous studies have classified earnings management into two types: accrual-based earnings management and real earnings

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management (Healy & Wahlen, 1999; Roychowdhury, 2006; Schipper, 1989).while real earnings management purpose to accelerate earnings by changing some of the company's operations (Ewert & Wagenhofer, 2005). Accrual earnings management requires positioning asset write-off and bad debt expenditure, while real earnings management is overproduction, R&D spending manipulation, sales manipulation and promotional expenditure guidance.

Through agency theory, control mechanisms can align interests between managers and stakeholders to mitigate the conflict and opportunistic behavior. The financial literature has indicated the important role of financial structure in aligning the interests of shareholders and managers and reducing agency costs (Jensen & Meckling, 1976). However, financial leverage leads to diverging interests between debt holders and managers, where debt holders restrict the managers and reduce their opportunistic behavior by contracts, but the latter may resort to earnings management policies to ease these restrictions.

Jordan is a good environment to study the impact of the financial structure on earnings management. The economy and the capital market in Jordan have faced a set of external and internal challenges over the past several years. In this line, the General Controller of Jordanian Companies (Nazha, 2018) indicate that 28 companies lost more than 75% of their capital. The number of liquidation cases for Jordanian shareholding companies from 2010 to 2018 was 24 companies (JSC, 2019). The General Controller of Jordanian Companies (Nazha, 2018) pointed out that the most important reason why Jordanian companies fail is a weakness in financial decisions and non-compliance with the rules of corporate governance, and the international financial reporting standards. The deteriorating financial situation of many companies has caused lenders to increase the risk ratio and restrictions on loans, thus financing through borrowing (debt) had become fraught with difficulties and obstacles that put a stumbling block in front of Jordanian companies that wish to borrow (Saa'deh, 2018). The increase in interest rates and the obligations on companies lead to a limited expansion of their businesses. The current study deals with aspects of the financial structure for non-financial Jordanian companies and its relationship with earnings management. There are three motivations that drive the current study. First, globalization has an important role in making modern global accounting an important topic and attracting attention. Second, the difference in the characteristics of countries requires more research and accounting coordination. Where earnings management practices differ between countries. Therefore, supplementary international evidence can be useful in clarifying these differences. Third, the current study chose the period from 2009 to 2019 where the Jordanian companies applied the corporate governance code.

LITERATURE REVIEW

Agency theory discussed the conflict of interest between shareholders and debt holders (Jensen & Meckling, 1976). This struggle leads to transfer the wealth from the creditors to the shareholders. In the finance field, financial information quality increases the demand for securities (Amihud & Mendelson, 1986).

Lack of having intrinsic information by investors while this information is possessed by managers leads to conflict of interest. Information asymmetry enables the managers to use earnings management policies to achieve their personal objectives. Managers are highly motivated to practice earnings management, which may enable them to improve bargaining power and achieve more favorable terms in negotiating debt contracts (Rodríguez-González et al., 2020), avoid debt contract violation, or maintain a good relationship with debt providers to obtain additional debt (Ronen & Yaari, 2015). The company engages in earnings management to avoid breaching debt covenants because it may be costly (Watts & Zimmerman, 1986).

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The financial structure ability helps the company to reduce the financial problems. A company stuck in a high level of debt may find it difficult to let go of the debt burden (Fahmi, 2013). Therefore, managers may manipulate the financial data provided to change the information related with financial structure ability of the company. The companies will have an option to manipulate earnings management strategies towards the level of financial structure ability to protect the company's interests in the capital market. It has been argued that firms lean toward earnings management policies (Leventis, Dimitropoulos, & Anandarajan, 2011). Thus, it resorts to earnings management to obtain additional capital to finance its activities. Insufficient capital motivates managers to manipulate the provided financial data to persuade capital providers in capital market transactions (Aharony et al., 2010).

There are two viewpoints of the relationship between debt and earnings management. Where Afza & Rashid (2014) Jelinek (2007) Lazzem & Jilani (2018) and Zamri et al. (2013) indicated to negative impact of debt on accrual earnings management, companies that have a high percentage of debt in their financial structure (low financial capacity) are able to reduce profit management practices. Firms with high levels of debt are likely to face stricter control from creditors through concluding contracts. This is to restrict the opportunistic manager's behavior to secure debt holders' investments. Consequently, management is less motivated to conduct accrual earnings management practices.

On the other hand, various studies pointed out that highly leveraged companies practice more earnings management activities (Dichev & Skinner, 2002). Managers use income-raising to reduce companies' breach of debt covenants (Beatty & Weber, 2003). Debt in the financial structure has a positive effect on earnings management practices; when the company does not want to violate debt contracts and increase the negotiation debt value of companies, it resorts to using earnings management strategies. Beatty & Weber (2003) and Dichev & Skinner (2002) indicate that companies with high leverage (low financial structure ability) may practice accrual earnings management and other accounting strategies profit-increasing. Thus, it can be hypothesized that:

H_1: Financial structure ability negatively influences accrual Earnings Management for companies listed on the ASE.

Debt repaying ability issues have received increasing attention from researchers. One of the arguments related to debt repaying ability and earnings management is related to accounting conservatism (Iyengar & Zampelli, 2010). According to agency theory, debt repaying ability is considered one of the managers' responsibilities in order to preserve the commercial activities capital and ensure the survival and continuity of the company's business. The existence of the difficulties in this area will reflect the weak financial performance of the company towards the shareholders. This means the company's inability to pay its debts towards business obligations was represented by the managers engaging in managing earnings for commercial transactions. In addition, debt repaying ability was reflected in the company's financial position in the capital market activities (Zeller & Stanko, 1994).

Therefore, the decline in the company's ability to fulfill business obligations was considered a reason for financial distress. Meanwhile, signs of financial distress are taken as cautionary signals to shareholders in the capital market. This is due to the fact that the inability to repay debt towards financial obligation transactions represented the degree of risk in the business activities among shareholders in the capital market transactions (Demirag & Stevenson, 2011). So, it has been argued that companies are using earnings management policies to improve debt repayment ability information. In addition, the financial information related to a company's debt repaying ability is important to capital providers in the capital

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market (Ajayi & Oke, 2012). Therefore, it was said that companies with low debt repaying ability will not be provided additional capital. Consequently, managers may adopt earnings management policies in order to send a positive sign for capital providers to obtain the necessary funding for the company's activities. Thus, it can be hypothesizing that:

H2: Debt repaying ability negatively influences accrual Earnings Management for companies listed on the ASE.

Cash flows from financing activities are important for assessing the company's financial position (Khadash & Al Abadi, 2005). Cash flow from financing activities indicates the company's future obligations (Subramanyam & Wild, 2009). Managers may try to manipulate the financial information provided and engage in earnings management policies. Consequently, investors and capital providers are concerned about the reliability of financial reports to ensure their investments are safe and the company can face its future obligations. Thus, information asymmetry increases the agency problem (Jensen & Meckling, 1976). Investors demand high quality and credibility of financial reports to protect their investments (Houqe et al., 2017). Dickinson (2011) pointed out that cash flows from financing activities help to forecast and evaluate a company's position and financial hardship. In another context, cash flow from financing activities is considered free cash flow which is excess cash placed at the disposal of the administration that can be used for their personal interests. Therefore, the managers may apply earnings management policies. Thus it could be a source of conflict of interest between stakeholders and management (Jensen & Meckling, 1976). Thus, we can hypothesize that:

H3: Cash flow from financing activities positively influences accrual earnings for companies listed on the ASE

METHODOLOGY

To achieve the objective of the study, the data were collected for non-financial companies listed in the Amman Stock Exchange (industry and service companies) from 2009 to 2019, the financial companies were excluded because of differences in activities, business environments, and organizational regulations, especially the corporate governance code. Thus, the study population consisted of 93 companies, 6 companies were excluded due to incomplete their information. Consequently, the final sample of the current study was 88 companies, 967 firm-year observations**.**

Model specification

The current study follows panel data approach because it deals with several kinds of variables. Several estimation methods for plate data analysis (pooled OLS, fixed effect and random effect) can be applied to analyze the degree and direction of the variables. The current study used a multiple regression model to investigate the relationship between financial structure and accrual earnings management.

$$\boldsymbol{AEM}_{i,t} = \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1\boldsymbol{FSA}_{i,t} + \boldsymbol{\beta}_2\boldsymbol{DRA}_{i,t} + \boldsymbol{\beta}_3\boldsymbol{CASHF}_{i,t} + \boldsymbol{\beta}_4\boldsymbol{SIZ} + \boldsymbol{\beta}_5\boldsymbol{AGE} + \boldsymbol{\beta}_6\boldsymbol{GROWTH} + \boldsymbol{\beta}_7\boldsymbol{AQ} + \boldsymbol{\beta}_8\boldsymbol{MANOW} + \boldsymbol{\beta}_9\boldsymbol{FOROW} + \boldsymbol{u}_{i,t} \quad \text{Equation (1)}$$

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Table 1 DEFINITION OF THE RESEARCH VARIABLES		
Variable	Acronym	Definition
Accrual earnings management	AEM	Performance Matched Model
Financial structure ability	FSA	Total debt to total equity
Debt repaying ability	DRA	Current assets over current liabilities
Cash flow from financing activities	CASHF	Cash inflows from financing divided by the total of long-term debt and equities
Firm size	SIZ	LOG of the total assets
Firm age	AGE	Firm age
Firm growth	GROWTH	Changes in assets to total assets
Managerial ownership	MANOW	Total shares owned by firm's managers divided by the total shares
Foreign ownership	FOROW	Total shares owned by foreign investors divided by the total shares
Audit quality	AQ	Log audit fees

Where AEM, the dependent variable, refers to Accrual Earnings Management which is estimated by Performance Matched Model proposed by Kothari, Leone and Wasley (2005). This model prompted the interest of researchers in earnings management area because of its advantages compared with other models. In Performance Matched Model we have 2 steps should be applying. In the first step, the Performance Matched Model requires the calculation of the values of total accruals in order to estimate Earnings Management engaged in the companies. In order to derive the discretionary accruals values as the proxy of Earnings Management, the total accruals proceed with regression analyses towards the non-discretionary values. Therefore, this model has been argued to have included total accruals as an estimation of Earnings Management in the companies. Equation 2 represents this model:

$$\mathbf{TACC} = \frac{[\,(\boldsymbol{\Delta Cash}\text{-}\boldsymbol{\Delta CA})-(\boldsymbol{\Delta CL}+\boldsymbol{\Delta CPL})-(\boldsymbol{DeP}\&\boldsymbol{Amortazation})]}{\boldsymbol{LagTA}} \qquad \text{Equation (2)}$$

Where TACC = Total Accruals, ΔCash represents the changes in cash, ΔCA represents the changes in current liability, ΔCPL represents the changes in current portion long term debt, DeP & Amortazation = Current depreciation and amortization and LagTA = total assets of firm i at the end of year t-1.

The second step, (Kothari et al., 2005) has also addressed the option to derive the non-discretionary accruals selected accounting information from previous year such as previous Return on Asset values. Therefore, it has been claimed that the residual results from the regression analysis between the non-discretionary accruals components and the total accruals are treated as the discretionary accrual values for Earnings Management in the companies. Thus, Equation 3 represents this regression model:

$$\mathbf{TACC}=\beta_0+\beta_1\,[1/A_{i,t-1}]+\beta_2\,[(\Delta Sales_{i,t})/A_{i,t-1}]_{i,t}+\beta_4\,[PPE_{i,t}/A_{i,t-1}]+\beta_5\,ROA_{i,t-1}+\varepsilon_{i,t} \qquad \text{Equation (3)}$$

Where (TACC) = Total Accruals, ($A_{i,t-1}$) = the total assets of firm i at the end of year t -1, ($\Delta Sales_{i,t}$) = Change in sales of firm i, ($PPE_{i,t}$) = The level of gross property, plant, and equipment, ($ROA_{i,t-1}$) = Return on assets, i= firm, t= year and ($\varepsilon_{i,t}$) = Residual.

The independent variable is financial structure which is measured by FSA, DRA, and

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CASHF. FSA is known as the capacity of the firm to finance its assets through a combination of debt and equity (Alipour et al., 2015). It is also the ability of a company to use its capital to expand its business through shareholders and investors conducting capital market activities (Najjar, 2013). It is important for companies to access external financing, where it gives an indication to the lenders that they are able to reduce their losses to a minimum in the event of a bankruptcy (Nik Mohd Rashid, 2017). FSA is estimated by total debt to total equity. DRA is defined as its capacity to cover liabilities from assets (Werner, 2014). Benmelech & Dvir (2013) also argued that a company's debt repaying ability in financial transactions activities is largely related to financial stability. In addition, the term "*debt repaying ability*" can be translated into a company's ability to reduce the costs of commercial, financial, and activities (Crabtree et al., 2014). Company's debt repaying ability consider an important strategy to attract investors and capital providers, it is calculated by current assets to current liabilities (Nik Mohd Rashid, 2017). CASHF is the sum of the amounts of borrowing and issuing stocks minus repurchase stock, retirement payments and dividend (Brigham & Ehrhardt, 2013). CASHF is calculated by sum of cash inflows from financing divided by sum of equities and long-term debt (Ni et al., 2019) To highlight the links between financial structure and accrual earnings management the researchers included control variables in the regression model which helps to insulate the impact of other factors that have effects on accrual earnings management. Company size (SIZ) is measured as the natural logarithm of total assets. The larger firms are less engaged in accrual earnings management than the small ones (Haniffa et al., 2006; Xie et al., 2003). This supports the idea that small companies are subject to less oversight than large firms, allowing managers to apply accrual earnings management strategies. In another context, (Moses, 1987) argued that accrual earnings management practice is directly proportional to the company's size. To control the difference in accrual earnings management with various firms' life cycles the researchers were included the firm's age as a second control variable (Gul et al., 2009). Previous studies showed different results between company age and profit management. (Wang, 2006) found a positive relationship, while (Gul et al., 2009) pointed out a negative relationship. The second control variable is company's age which is calculated by the sum of years since establishment. The third control variable is firm growth. Previous studies defined firm growth as the expansion of the company's size over time, it indicated the effect of firm growth on the managers' opportunistic behaviour in companies, whereas Dimitropoulos & Asteriou (2010) highlight the positive relationship between companies' growth and earnings management. The previous studies pointed out negative impact of company's growth on accrual earnings management (Jaggi et al., 2009). They defined firm growth as an increase in the volume of production, increase in assets size, increase in the number of employees and growth of the profits. The fourth control variable is audit quality, It was estimated using the normal log of audit fees, whereas it is an important indicator of audit quality (Alhababsah, 2019; Alshouha et al., 2021). The fifth one is managerial ownership which is estimated by divide the total shares owned by firm's managers divided by the total shares (Alabdullah, 2018). The establishment of incentives for managers increases the converging interests between principles and agents (Jensen & Meckling, 1976). Foreign ownership is another control variable which is the overall fraction of shares that the foreign shareholders own (Alhababsah, 2019). Inadequate sources of domestic finance for investment is a common phenomenon in many developing nations (Leuz, 2010). Marashdeh (2014) indicated that Jordan, like other Middle East and North Africa countries, has considerably made the needed legislative reforms and established a legal environment conducive for foreign investment. Jordan's legislative reforms have increased foreign capital investment since the 1990s. Finally, i = a company t = year and u = the error term. Table 1 shows the variables definition.

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RESULTS AND DISCUSSION

Table 2
DESCRIPTIVE ANALYSIS

Variable	Obs	Mean	Std. Dev.	Min	Max
AEM	967	0.015	0.55	-1.65	1.35
FSA	967	0.75	0.75	0.04	2.54
DRAB	967	1.98	1.53	0.32	5.87
CASHF	967	-0.26	0.11	-0.58	0.57
SIZ	967	7.52	0.58	5.67	9.25
AGE	967	26.8	16.3	0	81
GROWTH	967	0.02	0.33	-0.92	5.31
MANOW	967	0.02	0.06	0	0.37
FOROW	967	0.13	0.22	0	0.99
AQ	967	4.05	0.44	3	6.35

Table 2 presents the descriptive analysis of the study variables. The results show, the average AEM is 0.015, with a standard deviation of 0.55. Furthermore, the range of AEM between -1.65 and 1.35. This result agrees with Dakhlallh et al. (2020) where the Jordanian companies manage their earnings upwardly. Moreover, the descriptive analysis of independent variable shows the mean of the financial structure ability is 0.75, the minimum and maximum rates 0.04, 2.54. while the SD is 0.75. This result indicates that non-financial companies listed on ASE increased the debt in financial structure compared with other previous studies which delated another period such Alzoubi (2016). The average of DRA is 1.98, Furthermore the SD 1.53 and rang between 0.32 and 5.87. According to this result, there is a decrease in this ratio compared with other previous studies which delated another period such (Marashdeh, 2014). Furthermore, the mean of CASHF is -0.26 with SD 0.1. The minimum and maximum rate are -0.58, 0.57. The result for control variables showed that the mean of SIZ is 7.52 with standard deviation of 0.58 and the minimum rate of 5.67 and the maximum level is 9.25. For AGE the mean is 26.8 with standard deviation of 16.3 and the minimum rate of 0 and the maximum level is 81. The mean of GROWTH is 0.02 with standard deviation of 0.33 and the minimum rate of -0.92 and the maximum level is 5.3. Furthermore, the mean of MANOW is 0.024 and the SD is 0.062, the range of MANOW between of 0.00, and 0.374. The FOROW, the mean is 0.132 with a SD 0.22, the the maximum level is 0.99 and minimum rate is 0.00. Finally, the result of descriptive analysis related with AQ shows, the average is 4.05 and SD 0.44. While the minimum and maximum levels are 3.0, 6.35 in Table 3.

Table 3
CORRELATION MATRIX

	AEM	FSA	DRA	CASHF	SIZ	AGE	GROWTH	MANOW	FOROW	AQ
AEM	1.00									
FSA	0.26	1.00								
DRAB	-0.19	-0.46	1.00							
CASHF	-0.09	0.02	0.05	1.00						
SIZ	-0.19	0.16	-0.13	0.03	1.0					
AGE	-0.04	0.22	-0.11	-0.08	0.21	1.00				
GROWTH	0.04	0.07	-0.01	0.03	0.00	0.04	1.00			
MANOW	-0.45	-0.10	0.06	0.03	0.14	-0.06	0.01	1.00		
FOROW	-0.32	-0.25	0.144	0.11	0.04	0.00	0.06	0.20	1.00	
AQ	-0.36	-0.005	0.01	0.06	0.46	0.23	0.01	0.24	0.26	1.00

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Table 4 MULTICOLLINEARITY TEST		
Variable	VIF	1/VIF
FSA	1.45	0.68
DRAB	1.34	0.74
CASHF	1.03	0.97
SIZ	1.21	0.82
AGE	1.09	0.91
GROWTH	1.02	0.98
MANOW	1.12	0.89
FOROW	1.23	0.81
AQ	1.48	0.67
Mean VIF	1.24	

Table 4 shows the correlation matrix between the study variables. According to Yoshikawa and Phan (2003) Multicollinearity level among independent variables should be less than 0.8. As can see in correlation matrix, all values less than 0.8 so there was no multicollinearity problem. Moreover, Hair, Black, Babin, Anderson & Tatham (2010) suggested to employ VIF to test the multicollinearity, where the VIF values should be less than 10. According to Table 5 all VIF values less than 10, thus the study model doesn't suffer from multicollinearity problem.

To investigate the relationship between the study variables, the authors applied the multiple regression method, as it was used by previous studies (Alabdullah, 2018). We applied Wooldridge test for autocorrelation (Wooldridge, 2018). The result of the test shows (prob 0.056, F (1.87) 3.74) which indicates no autocorrelation problem. Furthermore, Greene (2008) suggested that the modified Wald test can be used to expose heteroscedasticity, the result of modified Wald test shows (prob 0.00, chi2 (88) 12383), thus the study model suffers from heteroscedasticity problem. In this case, Alhababsah (2019) suggested using robust standard error. The results of the Hausman test (Chi-Sq. Statistic 42, Chi-Sq. d.f. 9, prob 0.00) indicated that the FEM is suitable more than a REM. Moreover, the Durbin Watson (DW) is 1.91. According Knoke (2003), the acceptable range of DW values of 1.5-2.5.

Table 5 RESULT OF THE FIXED REGRESSION ANALYSIS WITH ROBUST STANDARD ERROR		
Variables	**Fixed –Effect Regression with Robust standard error**	
	Coef.	**t-Statistic**
FSA	0.12	2.04**
DRAB	-0.07	-2.21**
CASH	-0.13	-1.6
SIZ	-0.007	-0.12
AGE	-0.008	2.29**
GROWTH	-0.02	-0.61
MANOW	-0.15	-2.22**
FOROW	-0.29	-2.28**
AQ	-0.21	-2.40**
_CONS	0.78	1.24
Adjusted R squared	0.7	
Prob(F-statistic)	0	
F-statistic	25.3	
DW	1.91	
Obs		967
*p< 0.10, ** p< 0.05, *** p< 0.01		

Table 5 shows the result of the fixed regression analysis with robust standard error of the variables and their influence on the earnings management of Jordanian companies listed

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under the service and industrial sectors. The Adjusted R-squared is 70%, which indicates that the financial structure variables explain 70% of the changes in accrual earnings management.

The current study has three study hypothesis, the first one mentioned there would be a negative relationship between financial structure ability and accrual earnings management. The output of regression shows a negative impact of financial structure ability on the accrual earnings management (Coef. 0.12, t-Statistic 2.04 Prob 0.04). Hence, this result consistent with the current study objectives and previous studies such as Beatty &Weber (2003 and Dichev & Skinner (2002) which found that financial structure ability may decrease earnings management. This is consistent with the agency theory; in the context of interest conflict, managers of companies which have a weak financial structure ability may resort to applying earnings management policies to ensure that debt covenants are not violated because it may be costly (Watts & Zimmerman, 1986). The second study hypothesis related to the relationship between debt repaying ability and accrual earnings management which mentioned a negative relationship between debt repaying ability and accrual earnings management. The output of regression shows that debt repaying ability has a negative impact on accrual earnings management of non-financial Jordanian companies listed on ASE (Coef. -0.07, t-Statistic 2.21 Prob 0.03). Thus, this result corresponds with the study objectives, in that it supports agency theory, where debt repaying ability is considered one of the managers' responsibilities in order to preserve the commercial activities capital and ensure the survival and continuity of the company's business. The existence of the difficulties in this area will reflect the weak financial performance of the company towards the shareholders. This means the company's inability to pay its debts towards business obligations was represented by the managers engaging in earnings managing for commercial transactions (Nik Mohd Rashid, 2017). The last study hypothesis mentioned that there would be a negative impact of cash flow from financing activities and accrual earnings management. The results show that cash flow from financing activities hasn’t impact on accrual earnings management of non-financial Jordanian companies listed on ASE (Coef. -0.13, t-Statistic -1.6 Prob 0.114).

Additional Analysis

To ensure the robustness of our results, and to address the potential endigeneity issues in the study model, we applied the two-stage least squares model (2SLS). following the literature (Aivazian et al., 2005; Fang et al., 2009; Li et al., 2018; Wang et al., 2019), the lagged value of tangible assist, financial structure ability, debt repaying ability and cash flow from financing activates were used as instruments that are correlated with the financial structure and not related to the error term. The Durbin (score) was chi2(3) = 2.217 (p = 0.5286) and Wu-Hausman F(3,865) = .729902 (p = 0.5343), that mean the current model doesn't suffer from endogeneity issues. The obtained results from 2SLS in Table 6 were similar to the results of OLS regression presented in Table 6. Thus, we can adopt on OLS results.

Table 6
TWO-STAGE LEAST SQUARES MODEL (2SLS)

Variables	Two-stage least squares model (2SLS)	
	Coef.	t-Statistic
FSA	0.16	4.7**
DRAB	-0.2	-1.8**
CASH	-0.79	-0.8
SIZ	-0.02	-0.27
AGE	-0.002	1.44
GROWTH	-0.06	-1.02

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MANOW	-0.62	-2.09**
FOROW	-0.42	-2.67**
AQ	-0.37	-7.01***
_CONS	0.78	1.24
Adjusted R squared	**0.62**	
*p< 0.10, ** p< 0.05, *** p< 0.01		

CONCLUSION

The main objective of the current study is to investigate the relationship between financial structure and accrual earnings management, panel data approach was applied to data collected from the annual report of 88 non-financial companies listed on ASE from 2009 to 2019. The results showed that financial structure ability, debt repaying ability and cash flow from financing activities have a negative and significant impact on accrual earnings management. The findings show that the relationship between financial structure variables and accrual earnings management for non-financial companies) service and industrial sectors) listed on ASE can explain by agency theory. Furthermore, it shows the importance of information related to financial structure for investors and capital providers' perceptions and behavior.

Moreover, the current study helps non-financial Jordanian companies create a positive perception towards the company from the investors and capital providers through the interest of financial structure, which presents a positive indication about the management reliability and integrity. Furthermore, the current study presents the importance of financial structure as one of the active, issues, where policy-makers must concentrate on financial structure ratios limitation and strengthen the regulations related to it. This is due to its importance in decreasing accrual earnings management practices that mislead investors and capital providers.

Our study investigating the relationship between the financial structure and accrual earnings management for the non-financial companies listed on ASE as one of the emerging economies, thus it contributes to the literature in this area. The financial structure is represented by financial structure ability, debt repaying ability and cash flow from financing activities and earnings management is represented by accrual earnings management performance approach. To the best of our knowledge, this study is one of few investigations in this area that have been conducted in Jordan.Therefore, it provides useful information for investors, decision-makers, and management in non-financial Jordanian companies.

The researcher faced limitations during the implementation of this research. The companies under financial sector were excluded due to the differences in business environment and regulations, as well as the lack of data for all companies. We recommend the researchers to expand in this study and apply it on financial companies to enrich the framework of the study. Also studying the study variables and applying them in different developing and developed countries to obtain results from different levels. In addition, other variables for financial structure, such as debt to equity market value, should be considered. Finally, the results of other accrual earnings management approaches, such as Modified Jones, could be compared with performance approach.

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