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The Impact of Growth Opportunities on Earnings Management Practices: Evidence from Jordan

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Abstract

Growth opportunities are one of the factors considered when assessing a company's viability or stability. Therefore, wide discussion about the incentives of grower firms to engaged with earnings management practices. This study aimed to examine the impact of growth opportunities on earnings management practices at Jordanian industrial companies listed in Amman Stock Exchange for 2015-2019. Using sales growth rate as a proxy to growth opportunities and using fixed effect model this study found that growth opportunities have a significant negative impact on earnings management measured by Modified Jones Model. Furthermore, this study controls several factors such as (firm size, firm age, and leverage). The regression found that firm size and firm age significantly negatively related with earnings management. While leverage has insignificant relationship with earnings management.

Keywords: *Growth Opportunities, Earnings Management, Jordan, STATA.*

1. Introduction

One of the elements evaluated in assessing the business's survival or stability is growth opportunities (Nwaobia et al., 2016). Indeed, companies having growth prospects seem to be more appealing to investors due to the greater possibility of earnings and wealth (Kwarbai et al., 2019). In other words, one of the basic premises of success business is that a company will keep operating in the future in the middle of industrial growth and the development of its business sector without the threat of closure represent by firm growth (Kwarbai et al., 2019, Kasmir, 2019). Therefore, evidence on growth opportunity firms is more important to investors in assessing firms, since growth opportunities provide genuine value of the company (Kester, 1984).

Optional investments such as volume development potential, different innovative products, mergers of other enterprises, spending in brand name through advertising, and even upkeep and replacement of current assets are examples of growth opportunities (AlNajjar and Riahi-Belkaoui, 2001). In addition, growth opportunities make for a sizable component of the market value of a stock (Pindyck, 1988). Therefore, researchers such as Garcia et al. (2009) argue that organizations with low

growth levels may be encouraged to engage in earnings management practices to hide their suffering. On the other hand, Debnath (2017) indicates that firms with growth potential have poor earning quality, showing that increasing a firm's growth leads to an increase in the accounting choices made by management when reporting earnings. These discussions indicate that growth and accruals are inextricably linked. Dechow et al. (1998) develop an empirical framework that suggests that enterprises with rapid sales growth require significantly higher working capital investments to fulfill growing customer demand. Their approach implies that growth-related changes in accruals should be regarded as non-discretionary because this component of accruals is predictable and prevalent among growth firms.

Following accounting scandals in various developed and developing economies, earnings management has become a topic of increasing importance. Therefore, this study focuses on examining the growth opportunities as factors that may motivate firms to engage in earnings management in the context of Jordan.

2. Literature Review

Since the beginning of the twentieth century, economic activity has been characterized by the large size of companies and the separation of ownership and management. The separation of ownership and management led to a conflict of interests and goals between owners (shareholders) and agents (managers), according to agency theory (Jensen & Meckling, 1976). Although management prepares financial statements within the framework of international standards that seek objectivity in accounting measurement, these standards still allow managers to choose between accounting policies. Managers may exploit this flexibility given by the accounting standards to improve the earnings for the period, which led to the emergence of the phenomenon of earnings management.

In general, it is often concluded that increasing growth of firms with smaller asset values and more considerable future discretionary investment expenditure by managers making it challenging to observe and supervise, and as a result, managers are more motivated to participate in opportunistic reporting behavior (Skinner, 1993; Skinner & Sloan, 2002). However, results regarding the impact of growth opportunities and earnings management practices are mixed in the literature. For example, in a study conducted by Debnath (2017) over the non-financial sector in Indian, the researcher found that firm growth measured by the change in total assets has a significant positive impact on earnings management. Debnath (2017) argues that as a company grows, the financial choices made by management when presenting earnings figures become more complex. Furthermore, Prihat et al. (2006) indicate that managers of companies with a more extensive investment opportunity set would have more flexibility or discretion in earning management. Hassan and Farouk (2014) argue that firms with high growth opportunities may further seek to keep up with the trend; therefore, they will exercise earnings management practices, which lowers the quality of reported results. Furthermore, in Indonesia, Edison and Nugroho (2020) found that growth opportunities measured by sales growth have a significant positive effect on earnings management in state-owned companies listed on the Indonesia Stock Exchange (IDX).

On the other hand, Das et al., (2018) & Hassan and Farouk (2014) found that firm growth significantly positively affects accrual-based earnings management. Besides, in a study conducted by Kwarbai et al. (2019) in Nigeria, they found that firm growth has a significant positive impact on earnings quality, while AL-khawaja et al. (2020)

founded significantly positively effects of most of electronic Islamic banking services' quality on customer satisfaction in Jordan. In other words, these results prove that the high growth leads to less level of earnings management practices. In line with literature, the researcher states the following hypothesis:

H_1: The growth opportunities have a significant positive impact on earnings management practices.

3. Methodology

3.1 Sample Selection

The study population consists of all industrial joint-stock companies operating in Jordan for 2015-2019. According to the Securities Depository Center (SDC), the study population reached 52 companies. As for the study sample, this study is limited to industrial companies listed on the Amman Stock Exchange (ASE) from 2015 to 2019. As a result, the number of industrial companies listed on the Amman Stock Exchange during the study period and whose financial statements are available reached 32 companies.

3.2 Study Variables

3.2.1 Earnings Management

Earnings management can be accomplished in two ways: first, using actual activity manipulation, in which management adjusts a firm's actual performance to mislead users, and second, using accounting accruals (Debnath, 2017). In the literature, discretionary accrual is a common proxy for determining earnings management strategies. This study uses Modified Jones Model (MJM) to measure discretionary accruals since MJM is widely used in the literature (Debnath, 2017). Measurement of discretionary accruals using the modified Jones model, as described by Dechow et al. (1995) as follow:

Step 1: calculation the total accruals:

TAC_{it} = ER-CFO

Where:

TAC: Total Accruals

ER: Earnings

CFO: Cash Flow from Operations

Step 2: determining non-discretionary accruals by estimating the model's parameters using the regression equation below for each sample company and each year separately:

$$TAC_{it}/AS_{it-1} = \beta 1\ (1/AS_{it-1}) + \beta 2\ (\Delta REV_{it} - \Delta REC_{it})/\ AS_{it-1} + \beta 3\ (PPE_{it}/AS_{it-1}) + \varepsilon_{it}$$

Where:

TAC: Total Accruals.

AS: Total assets at the end of the previous year.

ΔREV: Change in Revenue.

ΔREC: Change in Receivables.

FA: Property, Plant, and Equipment

Step 3: Using the model parameters determined from the preceding equation to calculate non-discretionary accruals for each of the sample companies:

$$NDA = \beta 1\ (1/AS_{it}) + \beta 2\ (\Delta REV_{it} - \Delta REC_{it})/\ AS_{it} + \beta 3\ (FA_{it}\ /\ AS_{it}) + \varepsilon_{it}$$

Where:

NDA: Non-discretionary accruals

Step 4: Discretionary accruals used as a proxy to measure the level of earnings management. Discretionary accruals are calculated by subtracting non-discretionary accruals from total accruals:

$$DA_{it} = TAC_{it} - NDA_{it}$$

Where:

DA: Discretionary Accruals

3.2.2 Growth Opportunities

In the literature, several indicators were used to measure growth opportunities, such as Tobin's Q, dividend-to-share-price ratios, research-and-development-to-sales ratios, and sales growth (Kwarbai et al., 2019). This study uses sales growth rate to measure growth opportunities. Table (1) shows the study variables and their measurement.

Table 1: Details descriptions of study variables

	Description & Variables	Symbol	Measurement of Variables	Source
Dependent Variable	Earnings Management	EM	Modified Jones Model	Debnath (2017), Rucita & Sanjaya (2021), Edison1& Nugroho (2020), Das et al., (2018)
Independent Variable	Growth Opportunities	GOP	Sales Growth Rate	Debnath (2017), Edison1& Nugroho (2020), Hassan & Farouk (2014)
Control Variables	Age	AGE	Time length of firm establishment	Debnath (2017), Hamzah et al. (2021), Das et al., (2018)
	Firm Size	SIZE	Log of firm' total assets	Debnath (2017), Rucita & Sanjaya (2021), Hamzah et al. (2021), Das et al., (2018)
	Leverage	LEV	Total debt divided by total equity	Rucita & Sanjaya (2021), Hamzah et al. (2021), Hassan & Farouk (2014)

***Source: Literature Review**

3.3 Study Model

$EM_{it} = \beta_0 + \beta_1 GOP_{it} + \beta_2 AGE_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \varepsilon_{it}$

Where:

EM: Earnings Management of firm i in the year t.

β_0 = intercept of the equation.

GOP: Growth Opportunities of firm i in the year t.

AGE_{it}: Age of firm i in the year t.

SIZE: Size of firm i in the year t.

LEV: Leverage of firm i in the year t.

4. Results

Table 2 shows the descriptive statistics of study variables. As shown in table 2, the average of EM is positive, meaning that industrial firms in Jordan generally exercise earnings management techniques. On the other hand, earnings management differs significantly amongst companies, evidenced by the minimum and maximum EM values. Regarding the GOP of the study sample, Table 2 exhibits a wide variety of differences between the minimum value (-1.0) and the maximum value (438.6), as well as a high standard deviation (34.7). This suggests that the growth rate differs significantly among the Jordanian industrial companies listed on Amman Stock Exchange. Furthermore, table 2 indicates that leverage (LEV), age (AGE), and size measured by the log of total assets (LogTA) all have significant differences among the study sample.

Table 2: Descriptions of study variables

Variable	Obs	Mean	Std. Dev.	Min	Max
EM	160	0.2	0.1	0.0	0.7
GOP	160	2.7	34.7	-1.0	438.6
LEV	160	32.2	18.6	3.2	76.8
AGE	160	33.1	15.2	8.0	70.0
LogTA	160	7.5	0.5	6.6	9.1

To test the hypothesis of the study, fixed effect model or random effect model must choose. The Hausman test must be performed in order to choose one of these models. Two assumptions are established to do this. First, the null hypothesis: "H0: random effect model is appropriate for panel data" followed by alternative hypothesis "Ha: fixed effect model is appropriate for panel data." Table 3 shows the results of hausman test. Table 3 shows the results of the Hausman test. As shown in the table 3 Prob>chi2 is less than 0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted. As a result, the fixed effect model used to assess the study's hypothesis.

Table 3: Hausman Test

Test Summary	chi2	Prob>chi2
	9.67	0.0463

Table 4 shows the regression results using the fixed-effect model. The Adjusted R-square is the regression coefficient, and its value of .1557 indicates that all of the explanatory variables in the model together explain 15.57 % in earning management, implying that other variables are responsible for the remaining variation in earning management.

In statistics, if the t-value (t) is more than 1.65 at a significance level (P-value or P) less than 0.1, it accepts the hypothesis, if the t-value is greater than 1.96 at a P-value level of less than 0.05, and accept the hypothesis if the t-value is 2.58 at a P-value level of less than 0.001. As shown in Table 4, growth opportunities have a significant negative impact on earnings management (t= -2.9800, P>t = 0.0040). This result proves that increasing firm growth leads to a high quality of earnings. This result is consistent with the results of Hassan and Farouk (2014) and Kwarbai et al. (2019) but inconsistent with Edison and Nugroho (2020). Table 4 also shows that firm size measured by log of total asset has a significant negative impact on earnings management (t=-1.8700, P>t = 0.0650). Indeed, it can explain a result that large firms are more likely to attract public notice, and therefore will be more cautious when publishing financial reports (Florencia & Susanty, 2019). Furthermore, according to Christiani & Nugrahanti (2014), large organizations are less likely to undertake earnings management since accounting information are scrutinized by more stakeholders. In other words, older companies are more likely to follow the rules and regulations than newer companies (Debnath, 2017). This result is consistent with Abbadi (2021). Regarding to firm age, the regression shows that age has a significant negative impact on earnings management (t=-3.3400, P>t = 0.0010). This result is inconsistent with the viewpoint of Hamzah et al. (2021) as they argue that older firms have more experience with earnings management techniques than freshly created organizations, therefore, long-established companies tend to manage their earnings. On the other hand, the regression using fixed effect model indicates that leverage has negative but insignificant impact on earnings management (t= -0.2100, P>t = 0.8370).

Table 4: Fixed effect model

	Coef.	Std. Err.	t	P>t
Growth Opportunities	-0.0007	0.0002	-2.9800	0.0040
Log of Total Assets	-0.4520	0.2417	-1.8700	0.0650
Age	-0.0204	0.0061	-3.3400	0.0010
Leverage	-0.0002	0.0012	-0.2100	0.8370
_cons	4.1822	1.8331	2.2800	0.0250

Dependent Variable: Earnings Management
Adjusted R-sq: = 0.1557

5. Discussion

This study focused on investigating the impact of firm's growth on earnings management practices with other control variables in Jordanian industrial companies listed on Amman Stock Exchange (ASE) from 2015-2019. For analyzing the effect of independent variable on earning management, a multiple panel regression analysis with a fixed effect model was used. The empirical results provide evidence of a significant positive relationship between firm's growth opportunity and discretionary accruals. As a result, this study showed that growth opportunities are important in determining a firm's earnings quality.

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