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## PROPERTIES OF EARNINGS AND CASH FLOWS IN ALGERIAN COMPANIES

This paper aims to analyze the properties of earnings compared to cash flows based on persistence and predictive ability as fundamental attributes of relevance. Therefore, we collected financial data of 20 Algerian companies from 2011 to 2020, where 200 observations were employed using the model of Sloan (1996) that was adjusted by sales. According to the results, the earnings of Algerian companies are highly persistent, but their predictability is weak. However, cash flows are not persistent and have no predictive ability. Consequently, earnings quality in Algerian companies is better than the quality of cash flows. Based on our results, users of financial reports in Algerian companies should focus on earnings when making decisions and be cautious when using cash flows.

**Keywords:** Earnings; Cash flows from operations; Persistence; Predictability.

### 1. INTRODUCTION

Financial statements are the most important channels of financial communication and the most prominent mechanisms of financial reporting for general purposes as a means to provide useful information to a wide range of users who cannot require companies directly provide information to them. According to the conceptual framework of the International Accounting Standards Board (IASB), the objective of financial reporting for general purposes is to provide useful financial information to the primary users. Therefore, financial information must be high quality by having the required qualitative characteristics (IASB, 2018).

Enhancing the quality of financial reporting is the objective pursued by accounting standard-setters to support confidence by increasing transparency and protecting market participants. That requires providing relevant and faithful financial information about the economic resources of companies and claims against them (IASB, 2018). Identifying and measuring economic resources and claims is a way to assess the company's financial performance, which is summarized in loss or profit. Consequently, enhancing the quality of earnings is a means to improve the quality of financial reporting.

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Profit or loss is among the items that users are becoming increasingly interested in, as it is the result of the company's activity and a measure of management's efficiency in employing economic resources and its effectiveness in achieving the set objectives. However, the importance of profit or loss depends on the information about cash flow that improves the informational content of accrual-based information by information about the ability of the company to generate and use cash, providing guarantees about the company's ability to meet its obligations towards the related parties.

To make their decisions, the users of financial information need to assess the prospects for cash flows (amount, timing, and uncertainty) and evaluate the management's stewardship of the company's economic resources. The Financial Accounting Standards Board (FASB) reinforced this trend early in the Statement of Financial Accounting Concepts No. 1 (SFAC No. 1) by identifying the determination of earnings and their components as the primary objective of financial statements. The FASB stated that in addition to net cash flows, users rely on current earnings to ascertain the company's ability to generate future earnings (FASB, 1978).

The quality of financial reporting is determined by several factors, including the quality of accounting standards and the quality of the accounting system of the company, as well as the external environment, particularly users and their aspirations. The accounting system remains the most determinant, where the quality of financial reporting depends mainly on the characteristics of financial figures summarizing how the items are recognized, measured, and presented. Earnings have attracted attention since they are a proxy of the company's performance and the management's efficiency in employing the available resources. Cash flows are complementary to the informational content of earnings and are a proxy of the company's liquidity and ability to meet its obligations.

Since the end of the 1990s, Algeria has worked hard to develop accounting practices and improve the quality of financial reporting. That is the result of the economic and institutional environment's requirements, which have undergone radical changes since the beginning of the 1990s, leading to the shift from socialism towards liberalism, in addition to accounting transformations at the international level and the increasing trend toward globalization of accounting practices. These transformations have forced the Algerian regulators to review the National Accounting System (PCN), which reflects the socialist orientation, to respond to the requirements of the new environment. Therefore, the Algerian regulator adopted the international solution through the Financial Accounting System (SCF), derived from International Financial Reporting Standards (IFRS).

The new accounting reference (SCF) adopted in 2010 has provided many unusual accounting practices compared to the previous reference (PCN), specifically its focus on measuring profit or loss, providing a faithful presentation of the company's performance. The SCF also introduced the statement of cash flows among the essential financial statements to provide relevant and reliable information about how the company generates and uses cash flows. Therefore, this study analyzes the properties of earnings compared to net cash flows from operations in Algerian companies after the 2010 accounting reform.

## **2. THEORETICAL BACKGROUND**

There is no consensus about what accounting quality or quality of financial reporting is; while some literature still views accounting quality as a concept that is defined from different points of view, so many researchers have introduced different dimensions to

measure accounting quality (Kamarudin, Wan Ismail, 2014). The most notable are those based on the quality of earnings and cash flows since they are two important accounting figures attracting the users' attention as a basis for making decisions.

Dechow, Ge, and Schrand (2010) classified earnings quality measures into three categories: accounting properties of earnings, market response to the earnings announcement, and other external indicators. The first category includes several earnings attributes that are expected to be related to their benefits for making decisions, specifically: earnings management, earnings persistence, income smoothing, and conservatism. The second category consists of measures that focus on the reactions of investors or financial markets to the disclosed earnings, based on the idea that high-quality earnings provide pertinent information for the company's valuation (Holthausen, Watts, 2001). The third category includes the other external indicators, such as the application of Financial Market Authority issues, the review of negative audit opinions, and weaknesses in internal control (Licerán-Gutiérrez, Cano-Rodríguez, 2019).

According to Jelodari and Kordshouli (2016), earnings quality refers to two fundamental attributes: the first relates to usefulness in decision-making, and the second relates to the relationship between this concept and economic profits. In other words, earnings quality indicates the usefulness of information about earnings and its consistency with the concept of economic profit. However, the first concept is more practical and measurable, unlike the second concept relating to real profit, which is an unverifiable theoretical concept. Therefore, earnings quality from the view of financial analysts requires that earnings be persistent, frequent, and able to predict future cash flows.

Managers are very concerned with meeting the aspirations of financial analysts by maintaining sustainable growth in earnings with a consistent rhythm as a way to protect their positions. On the other hand, financial analysts are interested in the best way to measure earnings quality, allowing them to make decisions that serve the interests of investors and maximize returns from their portfolios. Consequently, it is difficult for analysts, managers, and investors to ignore the role of earnings quality in allocating resources. Many studies have suggested that a high level of earnings quality is associated with low capital costs, especially in developed economic environments.

Literature has used several measures of earnings quality, some of which rely on the response of investors, which requires the availability of an active financial market. Some other measures rely on the attributes that increase the usefulness of earnings for making decisions through several characteristics, most notably: persistence, predictability, income smoothing, conservatism, timeliness, and earnings management (Kamarudin, Wan Ismail, 2014). These characteristics have great importance because they do not require the availability of an active financial market and only depend on financial statements.

Persistence and predictability are among the most important measures of earnings quality. They relate to relevance, which refers to "financial information that can make a difference in the decisions of users if it has a predictive value or a confirmatory value, allowing users to make new predictions or confirm or correct previous expectations" (IASB, 2018). On the other hand, persistent earnings are considered high-quality earnings and referred to as sustainable, so they are not occasional (Bissessur, 2008).

Literature provides evidence that persistence is a desirable feature in earnings and positively relates to its relevance. Financial analysts and investors prefer persistent earnings because they provide a reference basis for their predictions. Many studies show that the persistence of earnings positively affects their relevance; and thus positively influences their

quality (Cheng, Liu, 2016). Predictability also enhances the usefulness of earnings because persistent earnings are expected to be a better indicator of future cash flows, which improves the ability of investors to assess the company's value.

Earnings sustainability is related to its persistence and is defined as the extent to which current earnings predict future earnings (Licerán-Gutiérrez, Cano-Rodríguez, 2019). The most widely used indicator for earnings persistence is the autoregressive coefficient of current earnings over delayed earnings. Many studies extended this model by classifying earnings into cash flows and accounting accruals, based on the idea that the cash flow component of earnings has more predictive ability than accruals (Sloan, 1996). The second widely used indicator of persistence and predictability is earnings volatility, so when the fluctuation of earnings is high, their predictive ability is low (Clubb, Wu, 2014).

Finally, due to their opposing effects on earnings quality, the ambiguity between persistence and predictability (of earnings and cash flows), on the one hand, and earnings management and income smoothing, on the other, should be noted. Unlike earnings management and income smoothing, persistence and predictability are required attributes of earnings quality. In addition, persistence and predictability can be easily achieved through earnings management and income smoothing practices, and the available models cannot determine whether persistence and predictability are the results of the company's performance or just the accounting composition of managers (Li, 2019; Potharla, 2022; Khuong et al., 2022).

### 3. LITERATURE REVIEW

There are many studies about the properties of a company's performance measures that provide mixed results. According to Ball and Watts (1972), the annual income time series follows a sub-martingale process, but Watts and Leftwich (1977) provided evidence that net income follows a random walk. However, Lipe (1986) identified some differences between earnings components in terms of persistence; he found that earnings of the current period are not a better predictor of future cash flows when compared to the current cash flows. On the other hand, Dechow, Kothari, and Watts (1998) showed that current earnings predict future cash flows better than current cash flows. The results of Barth, Cram, and Nelson (2001) indicated that cash flows and accruals as components of current earnings have a better predictive ability of future cash flows when compared to earnings.

Cupertino and Galimberti (2009) tested the hypothesis that the increase in accrual accounting decreases earnings persistence, which is raised with the rise of the cash component. They adopted the autoregression method for a sample of 126 Brazilian companies from 1995 to 2007. The results indicated that earnings persistence is heterogeneous between companies and that the previous hypothesis is not valid for Brazilian companies, especially the effect of accruals on earnings persistence.

Amor Tapia and Tascón Fernández (2011) examined the properties of earnings and their components in private companies. They used the data of non-listed European companies available on the AMADEUS database from 1995 to 2006. The results suggested differences between private and public companies in terms of persistence and that these differences are significant when accruals are extreme. The results also indicated that earnings persistence relative to cash flows in European companies follows a different pattern when compared to US companies. However, differences in persistence are not significant when companies report positive versus negative earnings.

Doukakis (2010) examined the persistence of earnings and their components after the IFRS adoption. The study included 956 firm-year observations obtained from the DataStream-WorldScope database during the period 2002-2007. The study included two years before and two years after the IFRS adoption and suggested that the IFRS guidelines did not improve earnings persistence and their components.

Kabir and Laswad (2011) explored the characteristics of net income and comprehensive income in New Zealand companies. The study relied on cross-section data for companies listed during 2010, using 89 companies to examine persistence, volatility, and predictive ability and 81 companies to measure the relevance. According to the results, net income is more persistent and value-relevant when compared to total comprehensive income. However, the study did not record significant differences between net income and comprehensive income in terms of volatility and predictive ability.

Ebaid (2011) examined the persistence of earnings in Egyptian companies and whether it is attributable to the accrual or cash flow component of earnings. The study used 74 listed companies from 1999 to 2007, revealing that earnings of Egyptian companies are persistent and that the persistence of earnings is attributed to the cash flow component more than the accrual component.

Lyimo (2014) analyzed the consistency between the various measures of earnings quality for companies listed on the Bombay Stock Exchange between 2006 and 2012, based on several widely used measures of earnings quality, such as persistence, predictive ability, smoothing income, and accrual quality. The results found incomplete consistency between earnings quality measures, which requires analysts, investors, and other market participants to use more than one measure of earnings quality.

Ahmadpour and Shahsavari (2016) were interested in the relationship between earnings management and earnings quality in companies listed on the Tehran Stock Exchange during 2007-2012. The study included 55 financially distressed companies and 198 non-financially distressed companies. The results showed that distressed companies tend to practice opportunistic earnings management, while non-distressed companies practice effective earnings management.

Jelodari and Kordshouli (2016) were concerned with the role of earnings quality in the reliability of operating cash flow forecasts for companies listed on the Tehran Stock Exchange, using 50 companies from 2009 to 2013. The results showed that the increase in earnings quality improves the accuracy of cash flow and operational forecasts, and thus earnings quality is a reliable criterion for the accuracy of financial forecasts.

An (2017) analyzed the earnings quality over time for companies listed on the Korean financial market using 9,584 firm-year observations during 1995-2006. According to the results, the earnings quality of Korean companies is lower when compared to companies in developed countries.

Adiati, Rahmawati, and Bandi (2018) investigated the impact of deferred taxes and accounting accruals on earnings persistence for companies listed on the Indonesia Stock Exchange, using 1,609 firm-year observations from 2007 to 2014. The results indicated a negative impact of deferred taxes and accounting accruals on earnings persistence, while the impact of deferred taxes is positive when dividing the sample into two subsamples according to the deferred tax sign.

Dimitropoulos and Koronios (2018) investigated the persistence and predictability of earnings in European football clubs and whether UEFA's Financial Fair Play (FFP) requires clubs to produce high-quality earnings. The study included 109 top-tier European clubs

during 2008-2016 and provided empirical evidence that cash flows have more ability to predict one-year-ahead earnings. The results also showed that the FFP installation enhanced the predictive ability of cash flow, especially for the smaller clubs.

Senan (2019) examined the ability of current earnings, cash flows, and accounting accruals to predict future operating cash flows based on 45 Saudi companies from 2006 to 2015. According to the results, current cash flows are more able to predict future operating cash flows compared to current earnings, and accounting accruals increase the predictive ability of current cash flows.

Focusing on persistence and predictability as fundamental attributes of relevance and considering the literature, this study starts from the following hypotheses:

- **Hypothesis (1):** Earnings are more persistent than net cash flows from operations.
- **Hypothesis (2):** Earnings have more predictive ability than net cash flows from operations.

#### 4. METHOD AND MATERIALS

This study relies on a descriptive approach to test the hypotheses by selecting 20 Algerian companies as a field of study from 2011 to 2020. The statistical method is also used through four multiple linear regression models.

##### 4.1. Model specification

The study research design includes four models; two of them are used to measure the persistence of earnings and cash flows, and the others are used to measure their predictability. These models are multiple linear regressions starting from Sloan (1996), which are adjusted by annual sales as a control variable following previous studies that used sales to express the company's size or activity level.

Model (1) is used to measure the persistence of earnings:

$$NI_{it+1} = \alpha_0 + \alpha_1 NI_{it} + \alpha_2 REV_{it} + \varepsilon_{it} \quad (1)$$

Model (2) is used to measure the persistence of operating cash flows:

$$OCF_{it+1} = \beta_0 + \beta_1 OCF_{it} + \beta_2 REV_{it} + \mu_{it} \quad (2)$$

Model (3) is used to measure the predictive ability of earnings:

$$OCF_{it+1} = \delta_0 + \delta_1 NI_{it} + \delta_2 REV_{it} + \gamma_{it} \quad (3)$$

Model (4) is used to measure the predictive ability of operating cash flows:

$$NI_{it+1} = \sigma_0 + \sigma_1 OCF_{it} + \sigma_2 REV_{it} + \eta_{it} \quad (4)$$

Where:

$NI_{it}$ : is the period's net income, measured as the profit or loss.

$OCF_{it}$ : is the net operating cash flows for the period.

$REV_{it}$ : is the total company's sale during the period.

$\alpha_0, \beta_0, \delta_0, \sigma_0$ : are intercepts.

$\alpha_1, \alpha_2, \beta_1, \beta_2, \delta_1, \delta_2, \sigma_1, \sigma_2$ : are parameters.

$\varepsilon_{it}, \mu_{it}, \gamma_{it}, \eta_{it}$ : are errors terms.

After collecting the data of variables directly from the financial reports of companies, they weighted using total assets to avoid the dispersion effect.

#### 4.2. Data collection

To collect the required data, 20 non-financial Algerian companies were selected depending on the availability of their financial statements. The study period was extended from 2011 to 2020 to obtain sufficient observations (200 firm-years). We exclude financial companies due to the specifications of their accounting systems, where earnings and cash flows are calculated differently. We collect the financial data from the database of the National Centre for Commercial Register (CNRC portal: <https://sidjilcom.cnrc.dz>).

### 5. RESULTS AND DISCUSSION

#### 5.1. Descriptive statistics

It is clear from Table 1 that the total observations reached 200 and relate to 20 companies from 2011 to 2020. Comparing the mean with the median, we observe a convergence between them for all variables, which means that the data distribution is close to the normality. The minimum values indicate the existence of negative values for earnings (NI) and operating cash flows (OCF), while there are no negative values for sales (REV). It also appears from the table that sales for the period are the most dispersed, followed by earnings and then operating cash flows, respectively. The high dispersion of sales is due to the several affecting factors that usually relate to the external environment, so sales tend to be more volatile, considering that they are the fundamental determinant of earnings and operating cash flows.

Table 1. The results of descriptive statistics

	N	Mean	Median	Standards deviation	Minimum	Maximum
NI	200	0.047	0.039	0.052	-0.053	0.209
OCF	200	0.072	0.065	0.010	-0.193	0.354
REV	200	0.492	0.402	0.390	0.005	1.500

Source: Author calculation.

#### 5.2. The persistence of earnings and cash flows

Models (1) and (2) were estimated to measure the persistence of earnings and operating cash flows, respectively. Before all, it is necessary to test the homoscedasticity of the standardized residuals of the two models. From Table 2, it appears that the significance levels for Breusch-Pagan and Koenker were much greater than the 5% level in both cases, which means that the two tests are not significant. Therefore, the standardized residuals of both Model (1) and Model (2) are homoskedastic.

Table 2. The results of Breusch-Pagan and Koenkertestes for Models (1) and (2)

	Model (1)		Model (2)	
	LM Statistic	Sig.	LM Statistic	Sig.
Breusch-Pagan	1.567	0.457	0.286	0.867
Koenker	1.166	0.558	0.180	0.914

Source: Author calculation.

Table 3 shows the estimation results of Model (1) and suggests that Model (1) is significant at the level of 1%. The determination coefficient reached 0.66, indicating that current earnings and sales explain the next period's earnings. The calculated Durbin-Watson is very close to the value of two (2), which means that the standardized residuals of Model (1) are not autocorrelated. Concerning the regression coefficients, the intercept is significant at the 10% level and presents a weak value. The sales parameter is statistically significant at the 5% level and indicates a positive and weak effect of current sales on the next period's earnings. The parameter of current earnings is statistically significant at the 1% level and suggests a positive and strong impact of current earnings on the next period's earnings. Due to the absence of perfect multicollinearity between the two independent variables in Model (1), as the Variance Inflation Factor (VIF) is close to one (1), the explanatory power is due to current earnings. Consequently, earnings of Algerian companies are persistent, and thus they are continuous over periods, which is a required characteristic that allows the improvement of the quality of financial reporting.

Table 3. Model (1)'s results summary

	Coefficient value	T	Sig.	VIF	Adjusted R squared	F	Sig.	Durbin-Watson
Intercept	0.008	1.682	0.095	-				
NI <sub>it</sub>	0.625	11.010	0.000	1.498	0.660	113.534	0.000 <sup>a</sup>	2.023
REV <sub>it</sub>	0.018	2.055	0.042	1.498				

a. Dependent variable: NI<sub>it+1</sub>.

Source: Author calculation.

Table 4 summarizes the estimation results of Model (2), which measures the persistence of operating cash flows. According to the results, Model (1) is insignificant as the significance level is more than 5%, and the determination coefficient is very close to zero, which means that the operating cash flows and sales for the current period do not explain operating cash flows for the next period. From the table, we also note that the calculated Durbin-Watson reached 1.945 and is very close to the value of two (2), which means that the standardized residuals of Model (2) are not autocorrelated. The results indicate that only the intercept is significant at the 1% level since the parameter of current sales is statistically significant at the 10% level, and the parameter of current operating cash flows is insignificant. Finally, the Variance Inflation Factor (VIF) is very low, indicating the absence of perfect multicollinearity between the two independent variables in Model (2). Based on these results, it appears that the operating cash flows of Algerian companies are not persistent, so they are occasional and unsustainable.

Table 4. Model (2)'s results summary

	Coefficient value	T	Sig.	VIF	Adjusted R squared	F	Sig.	Durbin-Watson
Intercept	0.049	3.313	0.001	-				
OCF <sub>it</sub>	0.031	0.778	0.438	1.003	0.019	2.106	0.126 <sup>a</sup>	1.945
REV <sub>it</sub>	0.044	1.853	0.066	1.003				

a. Dependent variable: OCF<sub>it+1</sub>.

Source: Author calculation.



Comparing the results of Model (1) with Model (2), Hypothesis (1) is confirmed, and thus earnings are more persistent than net cash flows from operations. That result is consistent with Cupertino and Galimberti (2009), who indicated heterogeneity in earnings persistence between companies. However, it differs from Ball and Watts (1972), who found that annual income follows a sub-martingale process, and Watts and Leftwich (1977), who provided evidence that annual income follows a random walk.

### 5.3. The predictive ability of earnings and cash flows

Models (3) and (4) were estimated to measure the predictive ability of earnings and operating cash flows, respectively. First, we tested the homoscedasticity of the standardized residuals as shown in Table 5, which shows that the significance levels of Breusch-Pagan and Koenker are more than 5% for the two tests, suggesting that the standardized residuals of each model are homoskedastic.

Table 5. The results of Breusch-Pagan and Koenker tests for Model (3) and Model (4)

	Model (3)		Model (4)	
	LM Statistic	Sig.	LM Statistic	Sig.
Breusch-Pagan	0.066	0.967	0.166	0.867
Koenker	0.034	0.983	0.134	0.883

Source: Author calculation.

Model (3) measures the ability of current earnings to predict future cash flows. Table 6 shows that the model is significant at 1%, with a very weak determination coefficient, which means that the ability of earnings and sales to predict cash flows is very weak. Additionally, the calculated value of Durbin-Watson is very close to the value of two (2), indicating that the standardized residuals of Model (3) are not autocorrelated. Table 6 shows that the intercept is significant at the 1% level with a very weak value and that the sales parameter is insignificant, indicating that current sales do not predict cash flows for the next period. However, the earnings parameter is significant at the level of 5% with a value of 0.428, revealing a positive effect of current earnings on cash flows for the next period. Therefore, current earnings can predict one-year-ahead cash flows, although this predictive ability is very weak. Finally, the Variance Inflation Factor (VIF) indicates the absence of perfect multicollinearity between the two independent variables in Model (3).

Table 6. Model (3)'s results summary

	Coefficient value	T	Sig.	VIF	Adjusted R squared	F	Sig.	Durbin-Watson
Intercept	0.049	3.376	0.001	-				
NI <sub>it</sub>	0.428	2.354	0.020	1.498	0.059	4.652	0.011 <sup>a</sup>	1.966
REV <sub>it</sub>	0.006	0.227	0.821	1.498				

a. Dependent variable:  $OCF_{it+1}$ .

Source: Author calculation.

Model (4) measures the ability of current cash flows to predict future earnings. Table 7 shows that Model (4) is significant at 1% with a medium predictive ability as suggested by the determination coefficient. The Durbin-Watson is close to the value of two (2), so the

standardized residuals of Model (4) are not autocorrelated. The intercept and the parameter of cash flows are not significant; hence current cash flows do not predict one-year-ahead earnings. However, the sales parameter is significant at the 1% level, revealing that sales predict one-year-ahead earnings, so the predictive ability of Model (4) is due to sales. Finally, the Variance Inflation Factor (VIF) suggests the absence of any perfect multicollinearity between the independent variables in Model (4).

Table 7. Model (4)'s results summary

	Coefficient value	T	Sig.	VIF	Adjusted R squared	F	Sig.	Durbin-Watson
Intercept	0.010	1.540	0.126	-				
OCF <sub>it</sub>	0.005	0.268	0.789	1.003	0.299	25.699	0.000 <sup>a</sup>	2.182
REV <sub>it</sub>	0.074	7.139	0.000	1.003				

a. Dependent variable: NI<sub>it+1</sub>.

Source: Author calculation.

The comparative results of Models (3) and (4) confirm Hypothesis (2), even though the predictive ability of earnings is very weak, cash flows have no predictive ability. These results confirm the findings of Dechow, Kothari, and Watts (1998) that showed the superiority of earnings compared to cash flows when predicting future operating cash flows. Contrarily, these results differ from those of Bowen, Burgstahler, and Daley (1986), who found that current cash flows have a higher predictive ability compared to current earnings, and Barth, Cram, and Nelson (2001), who found that cash flows and accruals are the best measures of future cash flows. These results also differ from Senan (2019), who recorded a superiority of current cash flows in predicting future cash flows compared to current earnings.

## 6. CONCLUSION

Earnings and operating cash flows are the most important accounting items and are widely used to assess the financial performance of companies. They are also the principal sources for abstracting many other indicators. Earnings are a proxy for the ability of a company to generate value and a measure to assess the stewardship role of management and its ability to use the company's resources efficiently. Cash flows from operations are a measure of the liquidity of the company and its ability to meet financial obligations against related parties; they are also an indicator of the management's ability to generate and efficiently use cash.

Consequently, literature has focused on earnings quality as a measure of the quality of financial reporting, which has become a target for accounting standard-setter bodies to meet the users' needs and achieve fair disclosure and transparency. Due to the weaknesses that characterize accrual-based earnings, especially earnings management and accounting manipulation, the reliance on net cash flows from operations has become a tool to improve the informational content of earnings and enhance the quality of financial reporting.

Persistence and predictive ability are among the most reliable measures of accounting quality due to their high relationship with relevance as a fundamental qualitative characteristic for useful financial reporting. Previous studies have mainly focused on earnings when measuring persistence and predictive ability, while some studies divide

earnings into their components (cash flows and accruals) to assess the two attributes. Therefore, this study attempted to measure the persistence of earnings and their predictive ability compared to cash flows. The study was conducted using Algerian companies to bridge the research gap due to the lack of studies on that subject in Algeria, through 20 companies, during 2011-2020.

Based on the model of Sloan (1996) adjusted by the total annual sales, the results provide empirical evidence that:

- Earnings of Algerian companies are persistent (continuous from one period to the next), so they are sustainable and not occasional or intermittent, which indicates that earnings are determined by factors under the control of companies. However, their predictive ability is very weak, as they predict a modest part of future cash flows.
- Operating cash flows of Algerian companies are not persistent and unsustainable, and thus they are occasional or highly volatile. They also are subject to factors that are not under the control of companies, which explains why the ability of current earnings to predict future cash flows is very weak. Operating cash flows of Algerian companies also have no predictive ability since they do not affect future earnings.
- Earnings have higher quality than operating cash flows in Algerian companies since earnings are more persistent and have high predictability than operating cash flows.

These results require users of financial reports in Algerian companies to focus on earnings when making their decisions since they have high quality. Users must carefully use cash flows because they are occasional and not persistent with any predictive ability and use other accounting items to support the informational content of earnings. These results also require other related parties to employ several measures of accounting quality due to the inconsistency between different measures.

Despite the contributions of this study, it is subject to some limitations. On the one hand, the model used cannot separate the part of persistence that represents the sustainability of earnings as a proxy for earnings quality from the other part of persistence that can be assigned to earnings manipulation, especially income smoothing. Therefore, future studies must use or develop other models to avoid that gap. On the other hand, the small sample size used in this study does not allow applying the results to a broader context, which requires future studies to use a larger sample size.

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