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Predicting the Future Accounting Earnings: Empirical Evidence from the Palestine Securities Exchange

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Abstract
This research comes as an effort to explore the role of past year earnings and operating cash flows in predicting the future (current) earnings using the time series data of the listed companies in the Palestine Securities Exchange (PSE). Also, this investigation examines the comparative usefulness of past earnings and operating cash flows variables in predicting the future performance of a firm. Additionally, this manuscript aims at deriving econometric forecasting model from the Palestinian economical environment. In order to achieve the previous objectives, the study requires exploiting the accounting data of the listed corporations in the Palestinian Securities Exchange from 2004 to 2011. Moreover, the study employs a variety of statistical procedures (descriptive analysis, regression analysis, Akaike Info Criterion, Schwarz Criterion, autoregressive [AR1] and autoregressive [AR2]). What's more, 16 listed Palestinian corporations (10 industrial and 6 service firms) were selected to examine the hypotheses [128 firm - year]. The findings of this paper specify that the previous year earnings have a potent role in predicting the future earnings for the listed companies in the Palestine Securities Exchange whereas the previous year operating cash flows are irrelevant. Additionally, the autoregressive first order and second order models are useful for forecasting the future performance of a firm. Furthermore, the AR (2) model is better than the AR (1) model. Also, the Akaike Info criterion and the Schwarz Criterion tests of model selection prove that the previous year earnings are the strongest variable of predicting the future performance. At last but not least, this study recommends the decision makers in Palestine to depend on the historical data of performance for expecting the future.
Keywords: Forecasting, Palestine Securities Exchange, Earnings, Time Series, forecasting models, Autoregressive.

1. Introduction

The most significant figure in the financial statements is the earnings number. The vital role of earnings appears because it is applied by many users of financial reports as the main value for drawing the conclusion regarding any type of decisions. Additionally, the internal and external users of the financial accounting information perform an effort to foresee the future performance (the expected earnings) in order to be used as a monitor for their decisions. For example, the investor can forecast the potential earnings to take the rational decision for the investment and to forecast the future dividends of a firm. As well, the internal managers foretell earnings for the future planning and to enhance the management functions. Likewise, the creditors can predict earnings to produce the credit decisions. However, the process of predicting the future earnings depends on the econometric models which created by the theorists in the field of accounting and finance. Consequently, many models were designed for the purpose of predicting the future earnings such as regression analysis, Akaike Info Criterion, Schwarz Criterion, autoregressive AR1 and autoregressive AR2 (Finger, 1994; Sneed, 1996; Kang, 2005; Junaidi, 2011). Many authors provide evidence regarding the ability of the historical earnings and the operating cash flows to predict the future earnings (Brown, 1993; Sloan, 1996; Richard, Ronald, and Anthony, 2006; Bernhardt and Campello, 2007; Mahmood, Ardakani, and Akhoondzadeh, 2012; Mirza et al., 2013). Moreover, the study of (Cheong, Kim, and Zurbruegg, 2010) explains that the adoption of IFRS would provide more value-relevant data for the users of financial reports and the adoption will enhance earnings prediction. The listed corporations on the Palestine Securities Exchange begin to adopt the international financial reporting standards [IFRS] in 2000s. Previously, the US GAAP model was the dominant model in Palestine. The conversion has significantly affected the financial reporting practice and the quality of financial information in Palestine (Daraghma, 2010). Also, the listed corporations in the Palestine Securities Exchange [PSE] are obligated to use an international accounting standards IAS and the international financial reporting standards [IFRS] (PSE securities law number 12, 2004).

This paper predicts future earnings using two indicators (the past earnings, and the past operating cash flows). The primary objective of this paper is to arrange the prediction ability of the two competing variables. According to this point of view, the paper of (Basu, Hwang and Jan; 1998; Joni, 2013) explains that the relative value relevance of earnings is more than the value relevance of operating cash flows in predicting the future earnings.

The Palestine Securities Exchange PSE was established in 1997, but it is still an emerging market. Moreover, the earnings forecasting research is rare in Palestine, and there is no evidence about earnings forecasting. For this

reason, this manuscript comes to investigate this issue in Palestine. Consequently, this paper comes to create [earnings prediction model] for the listed companies on the Palestine Securities Exchange.

The prediction of future profit is a very important issue for the users of the financial statements because of its role in building rational decision. For this reason, my paper comes to provide live evidence from the Palestine Securities Exchange using the accounting time series data of the listed companies in the PSE. For instance (Penman, 2003) explains that the ability of past earning to predict the future earnings as an indicator of the quality of earnings is useful. Therefore, the results of this research will provide an evidence about the predictability of earnings and evaluating the quality of earning in the Palestinian economic environment.

The findings of this research are expected to be used for guiding the users of accounting information to take the right decision. Also, this study aims to create [earnings forecasting model] for the listed companies in the Palestine Securities Exchange which will enable the users for budgeting the future profit. I expect that the result of this investigation will play a potent role in the dimension of financial analysis and financial management practices in the Palestinian economic environment.

This study consists of six sections as in the following: section (1) an introduction, section (2) addresses the literature review, section (3) describes the hypotheses of the study, section (4) addresses data and methodology, section (5) presents the results and section (6) reports the conclusion.

2. Literature Review

The international accounting literatures examine the ability of the past performance indicators to forecast the future performance. All over the world, many studies highlighted this issue and conclude the ability of past performance measure to predict the future. Therefore, this section addresses the previous studies. The following is an explanation of the literature review in the international environment.

In the United States, for example, the studies of (Rivera, 1991; Finger, 1994; Das, Levine, and Sivaramakrishnan, 1998; Darrough and Russell, 2002) show that the historical earnings are useful in predicting the future earnings and cash flows. Moreover, in the Australian environment, the study of (Arthur, Cheng, and Czernkowski, 2010) proves the ability of current earnings to predict the future earnings. Also, (Higgins, 2002) provides evidence about the ability of Japanese financial analysts to predict earnings by using the time series of earnings. In the international environment, the study of (Cheong, Kim, and Ralf Zurbruegg, 2010) gives an investigation into whether financial analysts forecast accuracy differs between the pre- and post-adoption of the international financial reporting standards (IFRS) in the Asia-Pacific region, namely, for the countries of Australia, Hong Kong and New Zealand. In particular, this study seeks to examine whether the treatment of intangibles capitalized in the post-IFRS period has positively helped analysts in forecasting future earnings of a firm. Evidence is found to show the intangibles capitalized under the new recognition and measurement rules of IFRS are negatively associated with analysts' earnings forecast errors. The results are robust to several model specifications across each country, suggesting that the adoption of IFRS may indeed provide more value-relevant information in financial statements for the users of financial reports. Besides, the study of (Jiao et al., 2012) examines the impact of the mandatory adoption of International Financial Reporting Standards (IFRS) on the financial analyst's ability to translate accounting information into forward looking information in the European Union. Mainly, the paper of Jiao investigates whether the switch to IFRS has an impact on (1) the ability of analysts to forecast earnings and (2) the agreement among analysts regarding expected earnings. The findings document rose forecast accuracy and agreement after the switch to IFRS. Additionally, in Australia, the paper of (Cotter, Tarca, and Wee, 2012) explores the impact of International Financial Reporting Standards (IFRS) adoption on the properties of analysts' forecasts and the role of firm disclosure. The findings of Cotter, Tarca, and Wee study shows that analyst forecast accuracy improves, and there is no significant change in dispersion in the adoption year, suggesting that analysts coped effectively with transition to IFRS. Another example, the Jordanian environment the study of (Mahmoud, 2006) tests the ability of the past earnings and the operating, investing, & financing cash flows to predict the future earnings. The findings show the ability of past earnings and operating cash flows in predicting the future profit. Also, the study of (Shubita, 2013) proves that the previous year earnings have the ability to forecast the future earnings in Jordan.

Respectively, the analysis of the previous literatures indicates that there is a useful value of past earnings in predicting the future earnings in the international environment. In Palestine, for instance, I noticed a lack of investigation regarding the prediction power of past earnings. This issue motivates me to put the following research question. What is the role of the historical data of earnings in predicting the future performance? Therefore, this manuscript appears in response to this important question relying on advanced methodology, and utilizing a variety of econometric techniques into consideration.

3. The Hypotheses

Depending on the objectives of this paper which is providing evidence from Palestine about the predictive

capability of past year earnings and past year operating cash flows in explaining future (current) earnings. In addition to constructing earnings-forecasting model for the listed companies on the Palestinian Securities Exchange. Accordingly, this paper comes to explore the following hypotheses using the econometric models that exploited in this domain of research. Hereinafter are the hypotheses that meet the objectives:

Hypothesis number 1 (H_1):

The past period earnings have value relevance in predicting the future (current) earnings.

Hypothesis number 2 (H_2):

The past period operating cash flows have value relevance in predicting the future (current) earnings.

Hypothesis number 3 (H_3):

The past period earnings and operating cash flows have value relevance in predicting the future earnings.

Hypothesis number 4 (H_4):

The past earnings have predictive ability more than the past operating cash flows.

4. Data and Methodology

This section of the study shows data, variables measurement and the econometric models that used to test the hypotheses as in the following.

4.1. Data

The initial sample consists of all the listed industrial and service corporations in the Palestine Securities Exchange [PSE] for an 8-year period from 2004-2011. The sample selection conditions are: a- December is the end of the fiscal year. b- Company's stock is traded. Thus, 16 corporations (10 industrial and 6 services) were chosen to implement the techniques of Econometrics. Moreover, the financial data is collected from both the annual report of the corporations and the electronic database of the PSE [www.p-s-e.com]. Indeed, this study uses three models in order to test the ability of past period earnings (E) and past period operating cash flows (OCF) in predicting the current earnings.

4.2. Study Variables

The variables of this study are defined as the following:

I: The dependent variable (the current year earnings [E_{it}])

The international accounting standard number 33 (IAS 33 — Earnings Per Share) is an indicator for measuring the earnings in this paper because the listed corporation in the PSE adopts the international accounting standards IAS and the international financial reporting standards IFRS sine 2000s. Moreover, The IAS 33 shows two measurements of the EPS which are the basic and diluted EPS. This paper depends on the previous literatures in the forecasting field such as (Rivera, 1991; Finger, 1994; Das, Levine, and Sivaramakrishnan, 1998; Darrough and Russell, 2002; Higgins, 2002; Mahmoud, 2006; Arthur, Cheng, and Czernkowski, 2010; Cheong, Kim, and Ralf Zurbruegg, 2010; Cotter, Tarca, and Wee, 2012; Jiao et al., 2012) and the basic earnings per share was used. Mathematically, the basic earnings per share is calculated as the following:

$$EPS_{it} = \frac{\text{Net Income} - \text{Dividends on Preferred Stocks}}{\text{Average Outstanding Shares}}$$

Using the symbol the EPS formula is:

$$EPS_{it} = \frac{NI_{it} - DPS_{it}}{AOS_{it}}$$

Where:

E_{it}: basic earnings per share of the firm I for the period t (EPS_{it}).

NI_{it}: net operating income after tax of the firm I for the period t (accounting income after tax was computed in accordance with the IAS and IFRS).

DPS_{it}: dividends on preferred stocks of the firm I for the period t.

AOS_{it}: Average outstanding shares of the firm I for the period t.

II: The independent variables are (The past period earning [$EI_{(t-1)}$], and the past period operating cash flows [$OCF_{i(t-1)}$]. Then, this manuscript measures these variables as the following:

1 - The past period earnings per share [$E_{i(t-1)}$], is measured by using the basic earnings per share formula as the following:

$$E_{i(t-1)} = \frac{\text{Net Income of the Earlier Year} - \text{Dividends on Preferred Stocks of Earlier Year}}{\text{Average Outstanding Shares of the Earlier Year}}$$

Using the symbols, the current year EPS formula is:

$$E_{i(t-1)} = \frac{NI_{i(t-1)} - DPS_{i(t-1)}}{AOS_{i(t-1)}}$$

Where:

$E_{i(t-1)}$: basic earnings per share of the firm I for the period [t-1].

$NI_{i(t-1)}$: net operating income after tax of the firm I for the period [t-1] (accounting income after tax is computed

in accordance with the IAS and IFRS).
$DPS_{i(t-1)}$: dividends on preferred stocks of the firm I for the period [t-1].
$AOS_{i(t-1)}$: Average outstanding shares of the firm I for the period [t-1].

2 - The past period operating cash flows per share [$OCF_{i(t-1)}$], is computed per share using the following model:

$$OCFPS_{i(t-1)} = \frac{\text{Operating Cash Flows of the Earlier Year}}{\text{Average Outstanding Shares of the Earlier Year}}$$

Using the symbols, the current year OCF per share formula is:

$$OCFPS_{i(t-1)} = \frac{OCFEY_{i(t-1)}}{AOS_{i(t-1)}}$$

Where:
$OCFPS_{i(t-1)}$: operating cash flows per share of the firm I for the period [t-1] ($OCF_{i(t-1)}$).
$OCFEY_{i(t-1)}$: operating cash flows of the firm I for the period [t-1] (this figure computed in accordance with the IAS and IFRS and extracted from the statement of cash flows that prepared according to the international accounting standard number 7 [IAS # 7]: statement of cash flows).
$AOS_{i(t-1)}$: Average outstanding shares of the firm I for the period [t-1].

4.3. Econometric Models and Hypotheses Testing

This paper relies on the previous studies in the field of earnings forecasting. For instance, (Finger, 1994; Sneed, 1996; Fama and French, 2000; Kang, 2005; Junaidi, 2011). The abovementioned authors use the ordinary least squares or Autoregressive model (AR) or both for forecasting earnings. For more explanations:

4.3.1. The ordinary least squares method

The ordinary least squares method estimates a slope coefficient of the independent variable. The conduction rule stipulates that when the estimated coefficient is statistically significant and positively related to the dependent variable, the findings indicate the foundations of predicting power. The OLS model is suitable for testing the four hypotheses of this paper as the following:

Firstly: model number one is designed for testing the first hypothesis that states the past period earnings have value relevance in predicting the future (current) earnings. The decision rule states that the forecasting ability of past earnings is available when the response coefficient [€1] of the independent variable [$E_{i(t-1)}$] is positively related to the current earnings E_{it}, and statistically is significant. The first model is presented below.

$$E_{it} = €_o + €_1 E_{i(t-1)} \quad \text{(Model 1)}$$

Where:
E_{it}: basic earnings per share of the firm I for the period t.
$E_{i(t-1)}$: basic earnings per share of the firm I for the period [t-1].
$€_o$: the constant.
$€_1$: the earlier year earnings response coefficient of the period (t-1). This coefficient explains the forecasting power of lag one earnings.

Secondly: model number two is designed for testing the second hypothesis that states the past period operating cash flows have value relevance in predicting the future (current) earnings. The decision rule states that the forecasting ability of past operating cash flows is available when the response coefficient μ_1 of the independent variable $OCF_{i(t-1)}$ is positively related to the current earnings E_{it}, and statistically is significant. The second model is presented below.

$$E_{it} = \mu_o + \mu_1 OCF_{i(t-1)} \quad \text{(Model 2)}$$

Where:
E_{it}: basic earnings per share of the firm I for the period t.
$OCF_{i(t-1)}$: operating cash flows per share of the firm I for the period [t-1].
μ_o: the constant.
μ_1: the past year operating cash flows response coefficient of the period (t-1). This coefficient explains the forecasting power of lag one OCF.

Thirdly: model number three is designed for testing the third hypothesis that states the past period earnings and operating cash flows have value relevance in predicting the future earnings. The decision rule states that the forecasting ability of past earnings and past operating cash flows are available when the response coefficients of the independent variable $E_{i(t-1)}$ and $OCF_{i(t-1)}$ are positively related to the current earnings E_{it} and statistically are significant. The third model is presented below.

$$E_{it} = ¢_o + ¢_1 E_{i(t-1)} + ¢_2 OCF_{i(t-1)} \quad \text{(Model 3)}$$

Where:
E_{it}: basic earnings per share of the firm I for the period t.
$E_{i(t-1)}$: basic earnings per share of the firm I for the period [t-1].
$OCF_{i(t-1)}$: operating cash flows per share of the firm I for the period [t-1].

$¢_o$: the constant.
$¢_1$: the earlier year earnings response coefficient of period (t-1). This coefficient explains the forecasting power of lag one earnings.
$¢_2$: the earlier year operating cash flows response coefficient of the period (t-1). This coefficient explains the forecasting power of lag one OCF.
In addition to the abovementioned modeling, this paper investigates hypothesis number four by comparing the adjusted R^2 of the model number 1 and 2. The largest value of adjusted R^2 explains the dominant model of forecasting.

4.3.2. The autoregressive method

The autoregressive method [AR] estimates a slope coefficient that relates a variable's current value to its future values. Mathematically:

$$\mu_{it} = è_o + è_1 \mu_{i(t-1)} \quad \text{(Model 4)}$$

Where:
μ_{it}: the dependent variable that represents the current year observation.
$\mu_{i(t-1)}$: the independent variable that represents the earlier year observation.
$è_o$: the constant.
$è_1$: represents the $\mu_{i(t-1)}$ response coefficient. This coefficient explains the forecasting power of earlier earnings.
The autoregressive first order AR (1) method implies that current observation can predict future observation. This paper uses the first autoregressive model AR (1) as explained by the equation number 4. Also, this paper uses the autoregressive second order AR (2). The AR (2) equation is:

$$\mu_{it} = è_o + è_1 \mu_{i(t-1)} + è_2 \mu_{i(t-2)} \quad \text{(Model 5)}$$

Where:
μ_{it}: the dependent variable represents the current year observation.
$\mu_{i(t-1)}$: the independent variable represents the observation of the year (t-1).
$\mu_{i(t-2)}$: the independent variable represents the observation of the year (t-2).
$è_o$: the constant.
$è_1$: represents the $\mu_{i(t-1)}$ response coefficient. This coefficient explains the forecasting power of the year (t-1) earnings.
$è_2$: represents the $\mu_{i(t-2)}$ response coefficient. This coefficient explains the forecasting power of the year (t-2) earnings.
The econometric model of earnings forecasting by using the autoregressive is explained bellow:
Firstly: The autoregressive first order AR (1) equation is:

$$E_{it} = €_o + €_1 E_{i(t-1)} \quad \text{(Model 6)}$$

Where:
E_{it}: basic earnings per share of the firm I for the period t.
$E_{i(t-1)}$: basic earnings per share of the firm I for the period [t-1].
$€_o$: the constant.
$€_1$: the earlier year earnings response coefficient of the period (t-1). This coefficient explains the forecasting power of lag one earnings.
Secondly: The autoregressive second order AR (2) equation is:

$$E_{it} = €_o + €_1 E_{i(t-1)} + €_2 E_{i(t-2)} \quad \text{(Model 7)}$$

Where:
E_{it}: basic earnings per share of the firm I for the period t.
$E_{i(t-1)}$: basic earnings per share of the firm I for the period [t-1].
$E_{i(t-2)}$: basic earnings per share of the firm I for the period [t-2].
$€_o$: the constant.
$€_1$: the earlier year earnings response coefficient of the period (t-1). This coefficient explains the forecasting power of lag one earnings.
$€_2$: the earlier year earnings response coefficient of the period (t-2). This coefficient explains the forecasting power of lag two earnings.
Model number (6) and (7) put to investigate the ability of past year earnings in predicting the current year earnings. What's more, these models provide additional assurance regarding the first hypothesis. In other words, the autoregressive model comes to explore the core hypothesis of this study.

5. The Results

This part displays the descriptive statistics, and the results of hypotheses using appropriate econometric methods.

5.1. Descriptive Statistics

Table 1 displays the descriptive statistics of earnings for the annual and pooled data of 16 listed companies in the

Palestine Securities Exchange from 2004-2011, 128 firm-year. Also, the table shows that the annual earnings mean was positive except the years 2004 and 2005. In addition, the mean for pooled earnings of the time series from 2004 to 2011 is positive and equal 0.074 Additionally, Table 2 reveals the descriptive statistics of the operating cash flows of annual and pooled data of 16 companies from 2004-2011, 128 firm-year. The table illustrates that the annual operating cash flows mean was positive for all year. Moreover, the mean for pooled operating cash flows of the time series from 2004 to 2011 is positive and equal 0.172.

Tables 1 & 2 show the number of observations includes 16 listed companies that classified as 10 industrial and 6 service companies. Also, the pooled data is 128 observations. In this paper the conclusion relies on the pooled data that reflects overall examination of the hypotheses. In addition tables 1 and 2 confirm that the mean of operating cash flows is greater than the mean of earnings.

5.2. Results of Hypotheses

This section of the study displays the econometric results that related to the four hypotheses of this paper. Each hypothesis requires special statistical method. This manuscript depends on the previous studies in the process of selecting relevant statistical method. Below are the findings of the paper.

5.2.1. Testing Hypothesis [1]

Hypothesis number 1 states that "the past period earnings have value relevance in predicting the future (current) earnings". I will examine this hypothesis using the ordinary least squares. Table number 3 shows the outcomes of the ordinary least squares for (current earnings – past earnings model). Generally speaking, the outcomes show that the past year earnings have predictive ability of the current earnings. This is because the F- statistics for pooled data equals 35.19 and statistically significant ($\alpha = 0.01$). Also, the coefficient $€_1$ positive which equals 0.420 and statistically significant ($\alpha = 0.01$). The estimated model of current earnings forecasting is $E_{it} = 0.069 + 0.420\, E_{i(t-1)}$. One of the most eminent findings is that the decision maker can rely on the past earnings to predict the future earnings for the listed industrial and service corporations in the Palestine Securities Exchange. Furthermore, the results of annual information give the similar conclusion regarding the prediction ability of past earnings. What's more, a table 3 shows that the adjusted R squared of the pooled data is 0.236 which indicates that the past earnings explain 23.6% on average of the current earnings.

5.2.2. Testing Hypothesis [2]

Hypothesis number 2 states that "the past period operating cash flows have value relevance in predicting the future (current) earnings". The hypothesis number two is examined by using the ordinary least squares. Table number 4 illustrates the results of the ordinary least squares for (current earnings – past operating cash flow model). Also, table 4 explains that there is an insignificant role of past operating cash flows in predicting the future (current) earnings. However, the results of pooled data show that the value of F-statistics is 0.347 which statistically is insignificant. This proves that there is no impact of past operating cash flows in forecasting the current earnings. Besides, the outcomes of the annual data give the same conclusion. The above-mentioned explanation shows that the decision maker cannot use the past year operating cash flows to predict the future earnings in Palestine. Furthermore, tables 3 & 4 prove that the value relevance of past earnings is more than the value relevance of the operating cash flows in forecasting the future earnings.

5.2.3. Testing Hypothesis [3]

Hypothesis number 3 states that "the past period earnings and operating cash flows have value relevance in predicting the future earnings". The third hypothesis has been examined by using the ordinary least squares. The finding of the multiple regression (table 5) shows that there is weak evidence regarding the role of the past earnings and the past operating cash flows in predicting the future earnings. For instance, the pooled data results show the F- statistic is 1.573 and statistically is insignificant. Moreover, the outcomes of the annual observations give the similar conclusion. Another conclusion, that the past earnings and the past operating cash flows are irrelevant to be used in one model for the purpose of predicting the future earnings in Palestine environment. Furthermore, tables 3, 4, and 5 show that the past earnings are the main indicator of future performance. More accurately, hypothesis number 4 provides a concrete conclusion regarding the process of selecting the best variable that interprets the future performance. Hypothesis number 4 will be examined by applying Akaike Info Criterion and Schwarz Criterion tests. The most eminent model of the two competing models must have the lowest value of the Akaike Info Criterion or the Schwarz Criterion.

5.2.4. Testing Hypothesis [4]

Proposition number 4 states that “the past earnings have predictive ability more than the past operating cash flows". The fourth hypothesis is tested by using adjusted R squared, Akaike Info Criterion *and* Schwarz Criterion. The decision rule states that the lowest values of Akaike Info Criterion *and* Schwarz Criterion indicate the highest prediction ability. Table 6 indicates the following findings regarding the process of arranging the prediction power of the two competing variables (past earnings and past operating cash flows). The results are:-

(i) The value of Akaike Info Criterion for the past earnings model 0.883 is less than the value of Akaike Info Criterion for the past operating cash flows 1.107. This indicates that the past earnings have value relevance

greater than the past operating cash flows in predicting the current earnings.
(ii) The value of Schwarz Criterion for the past earnings model 0.881 is less than the value of Schwarz Criterion for the past operating cash flows 1.107. This indicates that the past earnings have value relevance more than the past operating cash flows in predicting the current earnings. Furthermore, the adjusted R squared gives similar conclusions. The aforementioned explanations prove that the past earnings variable is the dominant one in predicting the future performance.

5.2.5. The autoregressive model (lag 1 and lag 2)

The autoregressive model is used as additional evidence. Table 3 shows the results of the autoregressive first order AR (1) and table 7 displays the results of the autoregressive second order AR (2).
The AR (1) test proves the role of past earnings in explaining the future earnings. Besides, table 7 displays the results of AR (2) shows that the previous earnings of the last two years have predictive ability of the current earnings. Additionally, the AR (2) model is more useful than the AR (1) in the process of forecasting the current earnings. This is because the adjusted R squared of the AR (2) 0.635 is more than the adjusted R squared of the AR (1) 0.236. The previous analysis of hypothesis one provides strong evidence regarding the significant role of the last two years earnings in predicting the future earnings of the listed corporations in the Palestine Securities Exchange.

6. The Conclusion

This study aims at achieving three objectives. The first objective is investigating the role of past year earnings and past year operating cash flows in predicting the future (current) earnings relying on the time series data of the listed corporations in the Palestine Securities Exchange (PSE) and this is the first goal. The second goal is examining the proportional usefulness of the earnings and operating cash flows variables in expecting the future earnings. The third goal is deriving an econometric forecasting model of the Palestinian environment. The achievement of these objectives requires utilizing the accounting data of the listed corporations in the Palestinian Securities Exchange from 2004 to 2011. In addition to this, the study employs a variety of econometric models (descriptive analysis, regression analysis, Akaike Info Criterion, Schwarz Criterion, autoregressive [AR1] and autoregressive [AR2]). Moreover, sixteen listed corporations in Palestine (ten industrial and six service firms) were selected for testing the hypotheses [128 firm - year]. The main findings of this paper are: (1) the previous year earnings have a potent role in predicting the future earnings for the listed companies in the Palestine Securities Exchange, whereas the previous year operating cash flows are irrelevant. (2) There is a serial-correlation among the earnings observations. (3) The autoregressive first order and second order models are useful for forecasting the future performance of the listed industrial and service companies in the PSE. (4) The AR (2) model is better than the AR (1) model. (5) The Akaike Info Criterion and the Schwarz Criterion tests of model selection prove that the previous year earnings are the strongest variable of predicting the future performance. In comparison with the previous studies like (Darrough & Russell, 2002; Higgins, 2002; Cotter, Tarca, & Wee, 2012; Jiao et al., 2012), this paper concludes similar findings regarding the ability of past earnings to predict the future earnings. Furthermore, the findings of this paper prove that there is no role of past operating cash flows in predicting the future earnings and that contradicts the results of previous studies like (Higgins, 2002; Jiao et al., 2012).
At last but not least, this paper strongly recommends and advices the decision makers in Palestine to rely on the historical data of performance for expecting the future. As well as, it recommends the authors to explore further research of forecasting issues from the Palestine environment.

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Biography

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Table 1: Summary statistics for the earnings (E)

Year	N	Mean	Maximum	Minimum	St. Deviation
2004	16	-0.106	0.839	-1.840	0.720
2005	16	-0.164	0.692	-2.496	0.938
2006	16	0.162	0.521	-0.108	0.225
2007	16	0.068	0.498	-0.167	0.183
2008	16	0.164	0.678	-0.088	0.189
2009	16	0.202	0.534	-0.081	0.199
2010	16	0.171	0.656	-0.284	0.257
2011	16	0.091	0.689	-0.324	0.273
Pooled	128	0.074	0.839	-2.496	0.466

Table 2: Summary statistics for the operating cash flows (OCF)

Year	N	Mean	Maximum	Minimum	St. Deviation
2004	16	0.121	0.780	-0.128	0.224
2005	16	0.054	0.589	-0.493	0.314
2006	16	0.299	1.454	-0.109	0.482
2007	16	0.145	0.815	-0.166	0.258
2008	16	0.274	1.043	-0.366	0.338
2009	16	0.169	0.849	-0.260	0.278
2010	16	0.138	1.087	-0.206	0.296
2011	16	0.175	1.275	-0.224	0.375
Pooled	128	0.172	1.454	-0.493	0.329

Table 3: Summary statistics of ordinary least squares (current earnings – past earnings)

$$E_{it} = €_{o} + €_{1} E_{i(t-1)}$$

Period	Constant $€_o$	Coefficient $€_1$	R Correlation	R Squared	Adjusted R Squared	F Statistic
2005-2004	-0.029 (-0.523)	1.269*** (15.919)	0.973	0.948	0.944	(253.404)***
2006-2005	0.142** (2.798)	0.122** (2.210)	0.509	0.259	0.206	(4.883)**
2007-2006	0.059 (0.998)	0.057 (0.265)	0.071	0.005	-0.066	(0.070)
2008-2007	0.118** (2.944)	0.667*** (3.150)	0.644	0.415	0.373	(9.921)***
2009-2008	0.053 (1.533)	0.911*** (6.463)	0.865	0.749	0.731	(41.776)***
2010-2009	0.042 (0.497)	0.641** (2.139)	0.496	0.246	0.192	(4.575)**
2011-2010	-0.055 (-1.085)	0.853*** (5.090)	0.806	0.649	0.624	(25.905)***
Pooled	0.069** (1.99)	0.420*** (5.933)	0.492	0.242	0.236	(35.199)***

**** Significant at 0.01, ** significant at 0.05, and * significant at 0.10*

Table 4: Summary statistics of ordinary least squares (current earnings – past operating cash flows)

$$E_{it} = \mu_o + \mu_1 OCF_{i(t-1)}$$

Period	Constant μ_o	Coefficient μ_1	R Correlation	R Squared	Adjusted R Squared	F Statistic
2005-2004	-0.034	-1.077	0.257	0.066	0.0001	(0.989)
	(-0.125)	(-0.994)				
2006-2005	0.171**	-0.157	0.220	0.048	-0.02	(0.712)
	(2.965)	(-0.884)				
2007-2006	0.102*	-0.114	0.301	0.09	0.025	(1.391)
	(1.907)	(-1.179)				
2008-2007	0.114**	0.345*	0.470	0.221	0.165	(3.946)*
	(2.270)	(1.991)				
2009-2008	0.112*	0.330**	0.559	0.313	0.264	(6.372)**
	(2.006)	(2.524)				
2010-2009	0.096	0.441*	0.476	0.227	0.172	(4.108)*
	(1.393)	(2.027)				
2011-2010	0.019	0.521**	0.565	0.319	0.271	(6.569)**
	(0.296)	(2.563)				
Pooled	0.087*	0.072	0.056	0.003	-0.006	(0.347)
	(1.945)	(0.589)				

**** Significant at 0.01, ** significant at 0.05, and * significant at 0.10*

Table 5: Summary statistics of OLS (current earnings –past earnings and past operating cash flows)

$$E_{it} = \phi_o + \phi_1 E_{i(t-1)} + \phi_2 OCF_{i(t-1)}$$

Period	Constant ϕ_o	Coefficient ϕ_1	Coefficient ϕ_2	R Correlation	R Squared	Adjusted R Squared	F Statistic
2005-2004	-0.02	1.263***	-0.081	0.974	0.948	0.940	(118.48)***
	(-0.308)	(14.484)	(-0.295)				
2006-2005	0.119*	-0.184**	0.252	0.560	0.314	0.209	(2.976)*
	(2.126)	(-2.244)	(-1.025)				
2007-2006	0.073	0.460	-0.265	0.500	0.250	0.135	(2.170)
	(1.362)	(1.665)	(-2.062)				
2008-2007	0.111**	0.592*	0.086	0.651	0.423	0.334	(4.769)**
	(2.481)	(2.137)	(0.437)				
2009-2008	0.05	0.877***	0.031	0.866	0.751	0.712	(19.475)***
	(1.349)	(4.779)	(0.299)				
2010-2009	0.021	0.478	0.313	0.587	0.345	0.244	(3.421)*
	(0.261)	(1.530)	(1.398)				
2011-2010	-0.055	0.854**	0.001	0.806	0.649	0.595	(2.027)*
	(-1.045)	(3.496)	(-0.04)				
Pooled	0.101***	-0.206*	0.473	0.514	0.264	0.251	(1.573)
	(2.616)	(-1.278)	(1.219)				

**** Significant at 0.01, ** significant at 0.05, and * significant at 0.10*

Table 6: summary statistics of Akaike Info Criterion and Schwarz Criterion for model selection

The Competing Models	Econometrics Model	Adjusted R Squared	Akaike Info Criterion	Schwarz Criterion
Current earnings-Past earnings model	$E_{it} = €_o + €_1 E_{i(t-1)}$	0.236	0.833	0.881
Current earnings-Past operating cash flows	$E_{it} = \mu_o + \mu_1 OCF_{i(t-1)}$	-0.006	1.107	1.156

Table 7: Summary statistics of the autoregressive second order AR (2)

$$E_{it} = €_o + €_1 E_{i(t-1)} + €_2 E_{i(t-2)}$$

Period	Constant $€_o$	Coefficient $€_1$	Coefficient $€_2$	R Correlation	R Squared	Adjusted R Squared	F statistic
2006-(2005 & 2004)	0.135**	0.445	0.455	0.604	0.365	0.267	(3.736)*
	(2.750)	(1.476)	(1.963)				
2007-(2006 & 2005)	0.025	0.187***	0.454***	0.829	0.687	0.639	(14.280)***
	(0.718)	(5.325)	(3.099)				
2008-(2007 & 2006)	0.039	0.507***	0.632***	0.881	0.778	0.741	(22.497)***
	(1.249)	(4.576)	(4.569)				
2009-(2008 & 2007)	0.038	0.445**	1.187***	0.920	0.846	0.823	(35.830)***
	(1.334)	(2.872)	(7.942)				
2010-(2009 & 2008)	0.045	1.183**	0.332***	0.661	0.436	0.350	(5.032)**
	(0.596)	(2.562)	(5.625)				
2011-(2010 & 2009)	-0.008	0.345*	0.986***	0.835	0.697	0.651	(14.961)***
	(-0.135)	(2.168)	(5.295)				
Pooled	0.032	0.125***	0.564***	0.635	0.403	0.325	(11.125)***
	(0.819)	(4.365)	(4.658)				

**** Significant at 0.01, ** significant at 0.05, and * significant at 0.10*