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The Relative and Incremental Information Content of Earnings and Operating Cash Flows: Empirical Evidence from Middle East, the Case of Palestine

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Abstract

This paper presents an investigation of the listed companies in Palestine Security Exchange (PSE). This investigation examines the relative and incremental information content of earnings (EPS) and operating cash flows (OCF). In addition, this paper aims to test the impact of losses on the information content of EPS and OCF. This study uses the accounting data of the companies that listed in the PSE from 2004-2008. Furthermore, it employs a variety of statistical procedures (descriptive analysis, correlation test, regression analysis, and Akaike's information criterion (AIC) and Vuong's test for model selection). Also, 23 Palestinian corporations were selected for testing the hypotheses. The results of this paper indicate the existence of value relevance of earnings whereas there is no sufficient evidence to confirm that operating cash flows has information content. Moreover, any firm that achieves profit will have a positive impact on the value relevance on its earnings and operating cash flows.

Keywords: Palestine Security Exchange, Relative and Incremental Information Content, Earnings, Operating Cash Flows, Model Selection, Akaike's information criterion (AIC), Vuong's test.

1. Introduction

The process of scrutinizing the usefulness of accounting information in interpreting stock returns is still current issue and it is the most imperative topic in accounting and finance, so that this topic provides evidence about the extent of the usefulness of financial information, which relates to any firm that listed in a capital market. To the best of my knowledge, the pioneer authors Ball, and Brown, (1968) executed the enormous work of this field and they provided evidence, which supported the value relevance of accounting earnings in explaining the stock returns. Afterwards, the study of (Beaver et al., 1979) provided evidence that there is strong role of accounting earnings in interpreting the stock prices. Moreover, many other studies gave the same conclusion like (Ohlson, 1991; Cotter, 1996 Jaggi and Zhao, 2002). Not only accounting earnings were tested, but there is also a vital role of cash items in explaining the stock prices (Healy, and Paleph, 1988). In addition to a number of literatures showed that there is influential role of operating cash flows (OCF) in determining the stock prices (Rayburn, 1986; Livant, and Zarowin, 1990; Cheng et al., 1997). Also, the studies of (Said, Hassab Elnaby, and

Nowlin, 2008; Banker, Huang, and Natarajan, 2009) showed that the accounting performance measures such as earnings and cash flows are useful for both valuation and performance evaluation purposes.

The listed companies in the PSE use an international accounting standards IAS (article 3, disclosure regulations, 2007)[1]. The IAS No. 7 showed that the statement of cash flows; SCF helps the investor to take the rational decision for the following reasons[2]. Firstly, SCF when used in concurrence with the financial statements, it provides information that enables users to assess the changes in net assets of an enterprise and its financial structure. Secondly, cash flows information is useful in assessing the ability of the company to generate cash and cash equivalents and enables users to develop models to assess and compare the present value of the future cash flows of different enterprises. Thirdly, it also enhances the comparability of operating performance by different enterprises because it eliminates the effects of using different accounting treatments for the same transactions. Finally, it is useful in examining the relationship between profitability and net cash flows and the impact of cash flows on stock prices. Moreover, many researchers showed that the elements of financial statements have value relevance when it helps the users for evaluating the stock returns (Al-Rashid, 1999; Charitou et al., 2001; Scot, 2003, P 57).

PSE was established in 1997, but it is still an emerging market. Moreover, the market-based research is rare in Palestine, and there is no evidence about the value relevance of the accounting information in explaining stock returns. However, the study of (Awad, and Daraghma, 2009) is the foundation stone of market-based research in Palestine[3]**.** The abovementioned details regards the PSE encouraged me as a researcher to test the value relevance of earnings and OCF for the listed firms in the PSE. The outcomes of this study are expected to be used for guiding the investor to take the right decision about holding or selling the stock. In other words, this study aims to examine the relative usefulness of earnings and OCF for the listed companies in the PSE, testing the incremental information content of earnings and operating cash flows [information content of earnings beyond operating cash flows and conversely] and testing the impact of losses on the information content of earnings and operation cash flows.

Many studies show that there is information content of earnings and OCF. Moreover, it concluded that earnings and OCF are complementary but not alternatives (Cheng et al., 1996; Livnat and Zarowin, 1990; and Charitou., 1997). Therefore, earnings and OCF supplement each other. This point of view supports the important of disclosure about income and cash flows statements in the annual report (Cheng et al., 1997). In this context, incremental information content comparisons assess whether one accounting measure (or set of measures) provides information content beyond that provided by another (Bartov, Goldberg, and Kim, 2001); whereas the relative information content comparisons asks whether one measure provides greater information content than another (Biddle, Seow, and Andrew, 1995).

Hoever, this study is organized in six sections as follows: section (2) addresses the previous research, section (3) describes study purposes and propositions, section (4) addresses data and methodology, section (5) presents the results and section (6) reports the conclusion.

2. Previous Research

The existence of the eminent efforts of (Ball and Brown, 1968), the relationship between accounting information and capital markets has become one of the most popular issue in the accounting literatures. Ball and Brown confirmed the value relevance of earnings in explaining security returns. In addition to

1 For more details see: "Disclosure regulations of the Palestine Securities Exchange", 2007. Available on the web site of PSE, www.p-s-e.com

2 International accounting standards board: IASB, International accounting standard # 7: IAS 7, "statement of cash flows". Issued in 1992 and effective in 1994.

3 Awad Ibrahim, and Zahran Daraghma. (2009). Testing the Weak-Form Efficiency of the Palestinian Securities Market. International Research Journal of Finance and Economics, Issue 32, PP 7 -17. The results of study showed that the PSE is inefficient at weak level.

many studies which concluded the same conclusion in the USA (Beaver, Clark and Wright, 1979; Freeman, 1987; Ohlson, 1991; Cheng, Liu, and Schaefer, 1997; Dechow et al., 1998; Guay and Sidhu, 2001; Elnaby and Said, 2001). Moreover, in the UK many researchers demonstrated a positive association between earnings and stock returns (Board and Day, 1989; Ali and Pope, 1995; McLeay, Kassab and Helan, 1997; Garrod and Hadi, 1998; Charitou, Clubb and Andreou, 2001). Also, Charitou, (1997) showed that there is value relevance of earrings and OCF in explaining security returns in the UK. In addition, the study of (Al-Qenae and Li, 2002) examined the information content of earnings for the Kuwaitian Stock Exchange that found a significant relationship between earnings and stock prices. Likewise, In Jordan (El-Khouri and AL-Mwalla, 1998) showed that the income numbers have value relevance in explaining stock returns. Furthermore, (Hadi, 2006) showed a significant value relevance of earnings, and its components in explaining security returns for Jordanian companies. Besides, (AL-Khalaylih, 2004) showed that the value relevance of earnings is greater than OCF in Jordan. In addition, the study of (Ben-Ayed and Abaoub, 2006) has examined the value relevance of earnings and its components in the Tunisian Stock Exchange. Correspondingly, the study has tested three hypotheses that related to the value relevance of alternative accounting measures and to the effect of the decomposition of earnings on its explanatory power. On one hand, the results showed that operating income, income before taxes, special items and income taxes are value relevant; whereas OCF and accruals are not value relevant. Furthermore, (Abd-Allah, 1995) found out a significant relationship between earnings and stock returns. Besides, in Saudi Arabia the study of (Al-Sehali, 2006) found that the value relevance of earnings is greater than the value relevance of OCF. Also, in Malaysia (Kadri, Aziz, and Ibrahim, 2009) indicated that earnings and OCF are value relevant. In addition, (Korczak, and Korczak, 2009) showed that there is an information content of earnings in Polish-listed companies.

Researchers have also tested the relative and incremental information content of earning and OCF. In the USA, the study of (Ali, 1994) concluded that there is incremental information content of earnings beyond OCF, and vice versa. Likewise, in the UK (Clubb, 1995; Charitou, Clubb and Andreou, 2001) showed that the relative information content of earnings is greater than the information content of OCF, incremental information content is founded for both earnings beyond OCF and OCF beyond earnings, and earnings are not alternative for the OCF but each one completes the other. Furthermore, In Australian environment, the information content of earnings is greater than the information content of OCF (Cotter, 1996; Hodgson and Stevenson-Clarke, 2002). Moreover, (Eric, 2004) showed that both OCF and earnings have incremental information content. Besides, (Cheng, Liu and Schaefer, 1996) examined the relative importance of OCF and earnings for a broad cross-industry sample in the USA. They found that OCF and earnings provided incremental information in the presence of each other. Moreover, in China the study of (Haw, Qi and Wu, 2001) indicated that the earnings is superior to operating cash flows in explaining stock return. Furthermore, (Plenborg, 1999) showed that earnings and OCF both have the ability to explain security returns in the Denmark.

`Various studies showed that negative earnings convey less information than positive earnings. For instance, (Sin and Watts, 2000) indicated that the earnings response coefficient for losses is lower than for profits. In addition, (Jan and Ou, 1994) compared the information content of gains and losses. They found that there is information content of positive earnings while irrelevant value of losses. In addition, (Hayn, 1995) has investigated the information contained in losses. Her study was motivated by a concern that a low explanatory power of share returns-earnings model for profitable firms could be due partly to the inclusion of losses. She showed that although there is a relationship between earnings and stock prices, this does not exist for loss making firms.

Accordingly, the analysis of the previous studies shows that the measures of earnings have value relevance in explaining stock prices in many countries. Upon an international context, the former studies gave mix evidence about the value relevance of earnings and OCF. Furthermore, there is an argument regard the relative and incremental information content of earnings and OCF. Besides, various studies have found that negative earnings convey less information than positive earnings.

However, the review of prior littérateurs put the following research question. To which extent the accounting measures have value relevance in the PSE. For this reason, this paper comes to answer this important question relying on strong methodology, and using various statistical techniques into consideration.

3. Purposes and Propositions

This section consists of three purposes and six hypotheses as follows:

The first purpose examines the information content of earnings and OCF of the Palestinian corporations that listed in the PSE. In order to achieve this purpose, I formulate the hypotheses H_1 and H_2. For instance, hypothesis 1 examines the value relevance of earnings in explaining security returns.

H_1: *The earnings have value relevance in explaining stock returns.*

Hypothesis 2 examines the value relevance of operating cash flows in explaining security returns.

H_2: *There is information content of operating cash flows.*

The second purpose tests the impact of losses on the information content of earnings and OCF. Moreover, the previous literatures have found out that negative earnings convey information less than positive earnings (Jan and Ou, 1994; Hayn, 1995; Sin and Watts, 2000). These outcomes lead me to test the impact of losses on the information content of earnings and OCF in Palestine. In order to achieve the second purpose, this study creates the hypotheses H_3 and H_4. More specifically, hypothesis 3 examines the impact of losses on the information content of earnings.

H_3: *There is impact of the losses on the information content of earnings.*

Hypothesis 4 tests the impact of losses on the information content of OCF. Hypothesis 4 is:

H_4: *There is impact of the losses on the information content of OCF.*

The third purpose of this study tests the relative and incremental information content of earnings and OCF. Also, this study formulates the hypotheses H_5, H_6 and H_7. Thus, hypothesis 5 arranges the competitive measures (earnings and OCF) according to information content.

H_5: *The information content of operating cash flows is greater than the information content of earnings.*

Hypothesis 6 examines the incremental information content of operating cash flows beyond earnings, and vice versa.

H_6: *Operating cash flows will provide incremental information to the earnings.*

4. Data and Methodology

The following part of this study illustrates data, variables measurement and the econometrics models that used to test the hypotheses.

The initial sample comprised all the firms that listed in the PSE for a 5-year period from 2004-2008. The sample selection conditions are: a- December is the end of the fiscal year. b- Company's stock is traded. Thus 23 companies were selected to execute the techniques of econometrics. Additionally, the financial information was collected from both the annual report of the firms and the electronic database of the PSE. Indeed, this study uses three models in order to test the relative and incremental information content of earnings (E) and (OCF). The variables that used in this study are defined as follows:

I- The dependent variable (stock returns)

R_{it}: returns of stock i in period t defined as follows:

$$R_{it} = \frac{P_{it} - P_{i(t-1)} + D_{it}}{P_{i(t-1)}}$$

Where:

P_{it}: share price of firm i at the end of the period t.

P_{it-1}: share price of firm i at the beginning of the period t.

DIV_{it}: cash dividends of period t.

The stock returns were calculated for a 12-month from the beginning to the end of year t.

II- The independent variables: earnings and operating cash flows

E_{it}: operating earnings of firm I in year t defined as net income before extraordinary items, discontinued operations, and non-operating items. The measure is calculated per share [E_{it}= (operating earnings/weighted average number of outstanding common stocks)].

OCF_{it}: operating cash flows of firm I in year t. This measure is calculated per share [OCF_{it}= (operating cash flows/weighted average number of outstanding common stocks)].

E and OCF have deflated by the price of the share at the beginning of the year. This procedure is for limiting the problem of heteroscedasticity. Also, this paper utilizes the following models to test the hypotheses of the study:

$$R_{it}= \gamma_0 + \gamma_1 E_{it} \quad [1]$$

$$R_{it}= \psi_0 + \psi_1 CFO_{it} \quad [2]$$

$$R_{it}= \theta_0 + \theta_1 E_{it} + \theta_2 CFO_{it} \quad [4]$$

Where γ_0, ψ_0, θ_0: the constants and γ_1, ψ_1, θ_1, θ_2: the coefficients. For instance γ_1 and θ_1 are the earnings response coefficient ERC, ψ_1 and θ_2 are OCF response coefficient OCFRC.

More clearly, this study includes three purposes. First of all, it examines the first purpose by using models 1 and 2 in which model 1 tests hypothesis 1 by relying on ECR [γ1]. Furthermore, when ERC is significant, the study will conclude that earnings have value relevance in explaining stock returns; whereas model 2 examines hypothesis 2 by relying on OCF response coefficient OCFCR [ψ1]. Also, there is information content of OCF when the OCFRC is significant.

The second purpose of this paper provides evidence regards the impact of losses on the information content of E and OCF. This could be achieved by classifying the companies into two portfolios (profits portfolio, and losses portfolio). Moreover, this paper compares the information content of the two subsamples by relying on the value of adjusted R^2. As well, the models and procedures that used in the first purpose will be used to test the hypotheses 3 and 4.

My paper examines the third purpose as follows:

a- It determines the relative information content based on models 1 and 2. Then, it relies on the values of adjusted R^2, Akaike Information Criteria (AIC) [prefer the model with the smallest AIC] and Vuong's test. These tests are used to compare the role of the earnings and OCF in explaining stock returns.

b- It tests the incremental information content as follows: i- When the information content of E and OCF (model 3) is greater than the information content of OCF (model 2). This paper will conclude that there is incremental information content of earnings beyond OCF. ii- When the information content of E and OCF (model 3) is greater than the information content of earnings (model 1). This paper will conclude that there is incremental information content of OCF beyond earnings (Biddle, Seow, and Siegel, 1995). Also, adjusted R^2, and AIC will be used to examine the incremental information content.

The competitive accounting measures in this study will be arranged based on the Vuong's test (Vuong, 1989). Vuong's test has been used extensively in accounting literatures to examine the relative and incremental information content of accounting measures (Biddle et al., 1995). Also, the study of Biddle et al., has suggested a comprehensive framework for the concepts of relative and incremental information content. Moreover, (Dechow et al., 1998) showed the method that used for comparing the value relevance of accounting measures. For instance, if we assume that there are two independent accounting measures (X and W) and the dependant variable Y. Hence, we have two competing models; the first is y=a+bX, while the second is y=a+bW. The Vuong's test uses the residuals of simple linear equations. And Z Vuong's statistic is calculated as follows:

$$V_{vuong} = \frac{\left[\log(\sigma_w^2) - \log(\sigma_x^2)\right]}{\left[n^{0.50}\sum_1^n (e_{w,i}^2/\sigma_w^2 - e_{x,i}^2/\sigma_x^2)\right]^2}$$

$$(\sigma_x^2) = \sigma_Y^2 (1 - R_x^2)$$

$$(\sigma_w^2) = \sigma_Y^2 (1 - R_w^2)$$

The null and alternative hypotheses of the Vuong's test are:

H_0: Z = 0, the two models have the same explanatory power.

H_a: Z ≠ 0, the two models do not have the same explanatory power.

Where:

R^2: the multiple correlation coefficient, σ_w^2: the residual variance for the second model, σ_x^2: the residual variance for the first model, n: the number of observations, σ_Y^2: the variance of dependent variable. Moreover, the decision rules are *1*- if z Vuong's = 0, implying that the two models have the same explanatory power. *2* - if z Vuong's > 0 implies that X is superior to W in explaining Y. 3- if z Vuong's < 0 implies that w is superior to x in explaining Y (Dechow, Lys, and Sabino, 1998).

5. The Results

This section aims at presenting the descriptive statistics and the results of hypotheses using relevant statistical techniques.

5.1. Descriptive Statistics and Correlation Analysis

Table 1 displays the descriptive statistics of E, OCF, and R for the pooled data of 23 companies from 2004-2008, 106 firm-year. Additionally, all irregular observations were omitted from the analysis in order to avoid its influence. Moreover, the mean of EPS and OCF is positive 0.04258 and 0.07469 respectively but the mean of securities returns is negative. Also, the results of Kolmogorov-Smirnov: K-S test show that the data follows the normal distribution. For this reason, the parametric tests are suitable for examining the hypotheses of this study.

Table 1: Summary statistics for the earnings, OCF, and stocks returns

Variable\ Statistic	Mean	Median	Maximum	Minimum	St. Deviation
EPS	0.04258	0.03829	0.90126	-0.40696	0.13834
OCF	0.07469	0.03271	0.45920	-0.20323	0.13490
R	-0.1206	-0.1378	0.63492	-0.69643	0.28670

EPS: Earnings per share, OCF: operating cash flows, R: security returns.

Table 2 shows the results of Pearson correlation (parametric test) and Spearman's rho (nonparametric test). Then, Panel A demonstrates a significant positive relationship between earnings and stock returns (the correlation coefficient 23.4% and significant at 0.01). After that, the table reveals insignificant positive relationship between OCF and stock returns (correlation coefficient 14.8%). As well, panel A explains significant positive relationship between earnings and OCF (correlation coefficient 28.8% and significant at 0.01). The correlation coefficient between EPS and OCF is 28.8% which doesn't indicate existence of multicollinearity problem between E, and OCF[4]. Additionally, panel B shows Spearman's rho coefficients of correlation in which Its results support the outcomes of Pearson Correlation test.

4 When the coefficient of correlation between two independent variables equal or more than 0.75 then there may be the problem of multicollinearity.

Table 2: Correlation matrix (Pearson and Spearman's rho coefficients)

Panel A: correlation matrix (Pearson coefficients)			
Variable	**R**	**EPS**	**OCF**
OCF	0.148	0.288 **	1
EPS	0.234 **	1	
R	1		
Panel B: correlation matrix (Spearman's rho coefficients)			
Variable	**R**	**EPS**	**OCF**
OCF	0.104	0.422 **	1
EPS	0.213 **	1	
R	1		

** Significant at 0.01, * significant at 0.05

Tables 1 and 2 confirm the availability of the main assumptions of regression (the normality because Jarque-Bera test indicates that the data follows the normal distribution, and no multicollinearity between EPS and OCF). Also, these indicators make the results of this paper more efficient. Thus, the parametric econometrics will be suitable for the purpose of analyses.

5.2. The Results of the Hypotheses

In this part, all of the hypotheses will be tested by using the econometrics methods in order to introduce the first evidence from the PSE regards the relative and incremental information content of earnings and OCF.

5.2.1. Testing the Relative Information Content

This part comes to decide which variable has more ability in interpreting the stock returns the earnings or the OCF. In order to achieve this purpose, the simple regression is used for estimating the parameters of models 1 and 2. More clearly, model 1 examines the value relevance of earnings whereas model 2 tests the value relevance of operating cash flows.

Table 3 proves that there is value relevance of earnings in explaining security returns. In addition, relying on the pooled data, the ERC is positive and statistically significant at 0.01 [ERC= 0.485]. In addition, R-square is 0.0551, and adjusted R-square is 0.0465. *Hence, the study shows that earnings have information content. Then hypothesis 1 is accepted. This result is consistent with the previous literatures.*

Table 3: Results of simple regression for testing the value relevance of earnings $R_{it}= \gamma_0 + \gamma_1 E_{it}$

Year	**Constant (γ_0)**	**Earnings Response Coefficient (γ_1)**	**F-Value**	**R^2**	**Adjusted R^2**	**AIC**
2004	0.0328	1.0520 **	4.891*	0.2588	0.2059	0.3594
	0.4286	2.7114				
2005	0.512**	0.621	1.756	0.0890	0.0380	2.1573
	2.598	3.325				
2006	-0.3066**	-0.0426	0.037	0.002	-0.042	0.0621
	-5.9901	-0.1923				
2007	-0.1107**	-0.1228	0.281	0.0111	-0.0284	-0.1259
	-2.4382	-0.5303				
2008	-0.2760**	0.4809*	4.40**	0.1606	0.1250	-0.3808
	-5.5329	2.0976				
Polled	-0.141**	0.485**	6.032*	0.0551	0.0460	0.2714
	-4.963	2.456				

** Significant at 0.01, * significant at .05

Table 4 displays the results of OCF model. Also, based on the pooled data I conclude that the OCF response coefficient OCFRC is positive and statistically insignificant at 0.0.05 [OCFRC=0.3149]. However, the OCFRC has significant positive influence at 0.10 for the years 2004-2005. Thus, these results indicate mixed evidence regards OCF. Finally, the R-square of pooled data is 0.0219 and adjusted R-square is 0.0465.

Table 4: Results of simple regression for testing the value relevance of operating cash flows $R_{it}= \psi_0 + \psi_1 CFO_{it}$

Year	Constant (ψ_0)	OCF Response Coefficient (ψ_1)	F-Value	R^2	Adjusted R^2	AIC
2004	0.0531 0.6812	0.5851_n 1.8760	3.521_n	0.201	0.144	0.4347
2005	0.5233** 3.1336	0.8026_n 1.887409	3.562_n	0.1652	0.1188	2.66698
2006	-0.2989** -5.6376	-0.0658 -0.4969	0.247	0.0106	-0.0321	0.0831
2007	-0.1156** -2.1640	-0.0155 -0.1223	0.015	0.0006	-0.0394	-0.1054
2008	-0.2513** -5.7532	0.1861* 2.0686	4.280*	0.157	0.120	-0.3564
Polled	-0.1442** -4.5533	0.3149 1.5278	2.334	0.0219	0.0125	0.3453

** Significant at 0.01, * significant at .05, $_n$ significant at 0.10

Tables 1 and 2 show the results of Akaike Information Criteria test in which AIC values of earnings model are less than AIC values of the OCF model. For instance, (Akaike, 1974) who developed the AIC, illustrated that the model with the lowest AIC is the best. For this reason, this study concludes that the relative information content of earnings is greater than OCF. The values of R-square support the point of view that earnings are more useful than OCF. Accordingly, the concrete results must be established regard the information content of E and OCF. Therefore, this study uses Vuong's test for model selection as previously showed in the methodology. In addition, table 5 shows the results of Z Vuong's statistic by using the pooled data.

The results of table 5 show that the value of Z Vuong's statistic is negative ($Z< 0$) and equal -944.638. Accordingly, (Dechow, Lys, and Sabino, 1998) showed that when Z Vuong's < 0 implies that earnings are superior to operating cash flows in explaining stock returns. Thus, the above-mentioned analyses give concrete evidence, which prove that the accounting earnings have more value relevance than OCF.

The abovementioned findings will help the Palestinian investors to take the rational decision and offers them valuable advice to focus on earnings and operating cash flows. Additionally, these results are consistent with the outcomes of many studies (Ali, 1994, Clubb, 1995; Cotter, 1996; Charitou, Clubb and Andreou, 2001, Hodgson and Stevenson-Clarke, 2002).

Table 5: *Results of Vuong's statistic for comparing the competing models [earnings model, and OCF model] based on* (Dechow, Lys, and Sabino, 1998) methodology. Also, this paper uses the pooled data.

$$V_{vuong} = \frac{\left|\log(\sigma_e^2) - \log(\sigma_{ocf}^2)\right|}{\left[n^{0.50}\sum_{1}^{n}(e_{e,i}^2/\sigma_e^2 - e_{ocf,i}^2/\sigma_{ocf}^2)\right]^2}$$

The measure	
Residual variance for earnings model σ_e^2	0.077693
Residual variance for OCF model σ_{ocf}^2	0.080395
Natural logarithm for the variance of residual of earnings model $\log(\sigma_e^2)$	-1.10861
Natural logarithm for the variance of residual of OCF model $\log(\sigma_{ocf}^2)$	-1.09477
$\sum_{1}^{n}(e_{e,i}^2/\sigma_e^2 - e_{ocf,i}^2/\sigma_{ocf}^2)$	0.000372
$\left[n^{0.50}\sum_{1}^{n}(e_{e,i}^2/\sigma_e^2 - e_{ocf,i}^2/\sigma_{ocf}^2)\right]^2$	0.00001461
Z Vuong's statistic	-944.658

The decisions rules are 1- if z Vuong's = zero, implying that the E and OCF have the same explanatory power. 2 - If z Vuong's > 0 implies that OCF is superior to E in explaining stock returns. 3- If z Vuong's < 0 implies that earnings is superior to OCF in explaining stock returns (Dechow, Lys, and Sabino, 1998).

5.2.2. The Impact of Losses on the Information Content of Earnings and OCF

Because there are various literatures that concluded the negative earnings have less value relevance than positive earnings (Jan, and Ou, 1994; Hayan, 1995; Sin, and Watts, 2000) So that this part of my paper introduces the first evidence concerning the impact of losses on the information content of earnings and operating cash flows in Palestine. Moreover, I use the same methodology, which has been used by my peers to test the impact of negative earnings on the value relevance of earnings and OCF. Accordingly, table 6 shows that positive earnings portfolio has positive impact on the value relevance of earnings and operating cash flows because the coefficients of earnings and operating cash flows are statistically significant. Furthermore, losses have negative impact on the value relevance of earnings and operating cash flows. The coefficients of earnings and operating cash flows are statistically insignificant for negative earnings portfolio. In general, earnings and OCF response coefficients for losses are statistically insignificant whereas earnings and OCF response coefficients for profit are statistically significant. In other words, this study finds significant information content for the positive earnings while irrelevant value for the losses.

Table 6: The impact of losses on the information content of E and OCF

Panel a: the influence of losses on information content of earnings: $R_{it} = \gamma_0 + \gamma_1 E_{it}$										
	Positive Earnings Portfolio					**Negative Earnings Portfolio**				
Year	**γ_0**	**γ_1**	**F**	**R^2**	**Adj.- R^2**	**γ_0**	**γ_1**	**F**	**R^2**	**Adj.- R^2**
2004	-0.008 -0.08	1.21* 2.725	3.995*	0.285	0.214	0.126 0.931	1.592 0.565	0.320	0.137	-0.293
2005	0.565 2.257*	0.5371* 2.653	3.7562*	0.0599	0.032	-0.491 -0.706	1.975 0.580	0.336	0.011	-0.296
2006	-0.370 -4.528	0.179** 3.171	4.222**	0.0825	0.0682	-0.37** -4.52	0.179 0.471	0.222	0.026	-0.047
2007	-0.110- 3.40*	0.126* 3.752	3.878*	0.0735	0.0482	-0.106 -0.910	-0.097 -0.1515	0.0229	0.004	-0.194
2008	-0.225 -3.07**	0.301* 3.019	4.523**	0.057	0.0235	-0.203* -2.45	3.240 1.69	1.85	0.222	0.209
pooled	-0.168 -4.43**	0.641* 2.48	6.180 *	0.0725	0.060814	-0.091 -1.23	0.529 0.95	0.903	0.037	-0.004

Panel b: the influence of losses on information content of operating cash flows: $R_{it} = \gamma_0 + \gamma_1 OCF_{it}$										
	Positive OCF Portfolio					Negative OCF Portfolio				
Year	γ_0	γ_1	F	R^2	Adj.- R^2	γ_0	γ_1	F	R^2	Adj.- R^2
2004	0.045 0.42	0.596* 2.671	3.557*	0.203	0.124	0.108 1.01	4.833 0.614	0.377	0.158	-0.26
2005	0.565 2.794	0.754* 2.856	4.517*	0.0421	0.0321	-0.124 -0.963	0.574 0.783	0.613	0.380	-0.239
2006	-0.343 -5.14	0.65** 5.008	4.6125**	0.0852	0.0421	-0.294* -2.72	-0.596 -0.788	0.621	0.134	-0.081
2007	0.032 1.875	0.525** 5.214	4.521**	0.0652	0.0354	-0.1107 -1.422	0.0831 0.532	0.2838	0.0537	-0.135
2008	-0.212 -4.15**	0.159* 2.73	3.407*	0.1512	0.1003	-0.35** -3.98	0.786 1.376	1.894	0.239	0.113
pooled	-0.153 -4.01**	0.415** 2.829	3.345**	0.041	0.028	-0.129* -2.28	-0.474 -0.77	0.601	0.025	-0.016

The sample is divided into two portfolios: positive earnings portfolio and negative earnings portfolio, ** Significant at 0.01, * significant at .05, n significant at 0.10.

5.2.3. The Incremental Information Content of Earnings and OCF

Tables 3, 4, and 7 illustrate summary statistics for earnings model, OCF model and earnings-OCF model to test the incremental information content of earnings beyond the OCF, and vice versa. Afterwards, I utilize the same methodology as (Livnat, and Zarowin, 1990; Biddle, Seow, and Andrew, 1995; Cheng et al., 1996, 1997; Charitou, 1997; Bartov, Goldberg, and Kim, 2001). Moreover, based on the values of R^2, adjusted R^2 and AIC I conclude that there is incremental information content of earnings beyond the OCF *but there is no incremental information content of the OCF beyond earnings*. However, this findings breach the previous literatures, which could be due to the lack of the financial culture in Palestine, absence of sufficient number of prudent investors, the PSE is inefficient at weak level and the PSE was established in 1997, but it is still an emerging market.

Table 7: Results of multiple linear regressions for testing the value relevance of earnings, and operating cash flows together $R_{it} = \theta_0 + \theta_1 E_{it} + \theta_2 CFO_{it}$

Year	Constant (θ_0)	θ_1	θ_2	F-Value	R^2	Adjusted R^2	AIC
2004	0.033 0.414	0.95* 2.517	0.076 0.128	3.282	0.26	0.146	0.483
2005	0.44* 2.242	0.395 0.829	0.686 1.518	2.094	0.198	0.133	2.130
2006	-0.299** -5.46	0.002 0.007	0.066 0.448	0.118	0.011	0.079	0.163
2007	-0.107 -1.847	0.122 0.516	0.013 0.105	0.141	0.012	-0.071	-0.052
2008	-0.29** -5.861	0.363** 3.530	0.139* 2.694	3.635**	0.238	0.169	-0.377
Polled	-0.153 -4.867 **	0.433* 2.095	0.187 0.883	3.399*	0.062	0.044	0.322

** Significant at 0.01, * significant at .05, n significant at 0.10, θ_0: constant, θ_1: Earnings Response Coefficient, and θ_2: OCF Response Coefficient.

6. Conclusion

In Palestine, I noticed a lack of empirical evidence regarding the information content of accounting measures. This encourages me to create a pragmatic investigation depending on the accounting data of the listed Palestinian companies in the PSE within the period 2004-2008. More clearly, my study comes to accomplish five goals, which are I- testing the value relevance of earnings, II- examining the value relevance of operating cash flows, III- determining the relative information content of earnings and operating cash flows. IV- testing the impact of losses on the value relevance of earnings and OCF, V- testing the incremental information content of earnings beyond OCF and vice versa. Accordingly, this paper utilizes many statistical techniques that include (adjuster R squares, and Akaike's information criterion (AIC) and Vuong's test for model selection).

The results of the study point out the following facts: 1- Earnings response coefficient ERC is positive and significant which indicates that earnings have value relevance in explaining stock returns. 2- There is no sufficient evidence to confirm that OCF has information content whereas there is mix proof regards this issue. 3- The value relevance of earnings is greater than the value relevance of OCF which indicates that earnings hold informative value more than OCF. 4- I find out value relevance for the positive earnings [profits] and irrelevant value for the negative earnings [losses]. 5- There is incremental information content of earnings beyond operating cash flows but there is no incremental information content of operating cash flows beyond earnings. These findings violate the previous literatures, which could be due to the lack of the financial culture in Palestine, absence of sufficient number of prudent investors, and the PSE is inefficient at weak level.

Accordingly, this study proves that earnings have information content which is similar to various literatures that were implemented in different markets such as Jordan (Al-Khalaylih, 2004), Kuwait (Al-Qenae and Li, 2002), Tunis (Ben Ayed and Aboaub, 2006), and Saudi Arabia (Abd-Allah, 1995). Moreover, in Palestine, there is no clear evidence proves the value relevance of OCF. Furthermore, there is strong evidence, which shows that earnings are the dominant measure for pricing the security in Palestine. Most importantly, there is information content of operating cash flows for all companies that achieved profit.

Last but not least, according to the abovementioned findings, my recommendation to the PSE management is to increase the level of financial advice for the Palestinian investors. In addition, I recommend that the investor have to take in account the earnings and OCF as a reference to take the rational investment decision.

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