

# COMPETING INDICATORS OF FREE CASH FLOWS AND THE USEFULNESS: EVIDENCE FROM PALESTINE EXCHANGE

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## ABSTRACT

*This paper comes to examine the relative usefulness of two indicators of the free cash flows in explaining the value of corporations' that listed on Palestine Exchange (PEX). The two competing indicators are Free Cash Flows to Firm (FCFF) and Free Cash Flows to Equity (FCFE). In addition to that, the paper aims at arranging the value relevance of the two competing variables of the free cash flows. In order to achieve the previous objectives, the study requires exploiting the accounting data of the listed corporations on the PEX during the period 2015 - 2019. Moreover, the study employs a variety of statistical procedures (descriptive statistics, Jarque-Bera test, correlation matrix, regression analysis, and Akaike info criterion for model selection). The sample of this paper consists of 18 industrial and service (9 industrial and 9 service) listed corporations on the PEX [90 firm-year]. The finding of this paper specifies that neither FCFF nor FCFE has a vital role in explaining company's performance and its stock returns. Similarly, the findings are inconsistent with the theories of the free cash flows. This paper recommends the Palestine Exchange to regulate the obligatory disclosure about the indicators of the FCF in the annual report.*

**Keywords:** Free Cash Flows to Firm, Free Cash Flows to Equity, Palestine Exchange.

## INTRODUCTION

Market-based accounting studies have been taking a significant place by researchers around the world. These studies provide evidence from the reality of financial markets on the usefulness of accounting figures used in valuation models (Heydari et al., 2014; Kusuma, 2014; Ahmed et al., 2018). The usefulness of accounting data is arranged by using the relative information content of the data included directly or indirectly in the published annual report of a corporation. Likewise, (Atqa et al., 2019) explains that the cash flows disclosure is considered as one of the main purposes of financial reporting. Given the use of cash flows as a performance indicator besides the net income. For instance, (Ragab & Hani, 2018) show that operating cash flows is positively and significantly associated with stock prices.

The free cash flow indicators are derived from operating cash flows (Mann, & Sicherman, 1991). These indicators are significant in explaining the performance of public shareholding companies. Thus, the one-million-dollar question is: What is the relative value relevance of the free cash flow indicators compared to operating cash flows in explaining the stock return from the reality of the Palestine Exchange [PEX]. The FCF is intended to measure the companies' available cash for discretionary users after making all required cash outlays. However, the FCF is cash flows from operations decreases the required amount of capital expenditures needed to maintain the

company's present productive capacity (Kieso et al., 2019). The two indicators of the free cash flows (FCF) are explained as follows:

Firstly, Free Cash Flow to Firm (FCFF) is the available cash flow for distribution among all the providers of capital including debtholders. Thus, the FCFF is the available cash flow to the entire firm before any payments are made to the providers of capital (both debt and equity). The equations of calculating the FCFF are explained as follows:  $FCFF = NI + NCC + I(1 - TR) - PPEI - IWC$ , where: NI: Net income after interest, taxes and preferred dividends, NCC: Non-cash charge represents depreciation and other non-cash charges minus non-cash gains. I: Interest, TR: Tax rate, PPEI: Capital expenditures for PPE minus sales of the PPE, IWC: Investment in working capital, and Investment in working capital = increase in current assets minus increase in current liabilities. The FCFF can also be calculated using another equation as follows:  $FCFF = OCF + I(1 - TR) - PPEI$ , Where: OCF: Cash flows from operations (Gunthorpe, 1993; Penman, 2001; Rupic et al., 2017; Revsine, et al., 2018; Kieso et al., 2019).

Secondly, Free Cash Flow to Equity (FCFE) is the available cash flow for distribution to a company's equity holders. In other words, free cash flow to equity is the cash flow remaining after all obligation including any interest and debt repayments have been made. Also, the FCFE equals the FCFF minus after-tax interest expense plus net increase in borrowing. The equations for calculating the FCFE are explained as follows:  $FCFE = FCFF + NB - I(1 - TR)$ , Where: FCFF: Free cash flow to firm, NB: Net borrowing which is the difference between debts principals paid and raised, and FCFE can also be calculated by using another equation as follows:  $FCFE = OCF + NB - PPEI$  (Kadapakkam et al., 1998; Gunthorpe, 1993; Penman, 2001; Rupic et al., 2017; Revsine, et al., 2018; Kieso et al., 2019).

The usefulness of the FCFF and the FCFE in the interpretation of the stock prices and firm performance is a controversial issue. In contrast, previous studies indicate that the FCFE explains the share price better than the FCFF. This is because the FCFF explains the value of the company as a whole. Hence, the FCFE explains the market value of stockholders' equity (Jensen, 1986; Penman, 2001; Salem & Khasharmeh, 2007; Al Zararee & Al-Azzawi, 2014). This debate raises two important questions: - firstly, when do we have to use the free cash flow to equity? and secondly, when do we have to use the free cash flow to the firm? The answer depends on what is to be valued; for valuing the firm as a whole, use the free cash flow to the firm. Therefore, the process of valuing just the equity, use the free cash flow to equity (Shrieves, & Wachowicz, 2001; Kaviani, 2013; Rupic et al., 2017; Ahmed et al., 2018). However, this paper presents an evidence that is inconsistent to the aforementioned assumptions.

## THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

This section of the paper represents the theoretical debate about the importance of the FCFF and the FCFE in interpreting the value. It also deals with formulating the hypotheses of the study, and the following is a review of this theoretical debate.

### The FCF For Valuing Company as A Whole

Previous literatures indicated that the Free Cash Flows to Firm [FCFF] represents a measure to assess the performance and value of a company as a whole (Penman, 2001; Salem & Khasharmeh, 2007; Al Zararee & Al-Azzawi, 2014). And that this indicator (FCFF) can be used in discounted models to calculate the total value of the company's assets and its total performance represented by a profit figure attributable to the total assets (Mann, & Sichernan, 1991). Thus, the

best dependent variable relies on the FCFF is Return on Assets: ROA because the ROA measures the whole performance of a firm. Thus, this explains that the relationship between the ROA and the FCFF must be greater than the relationship between FCFE and the ROA (Shrieves, & Wachowicz, 2001; Kaviani, 2013; Rupic et al., 2017; Ahmed et al., 2018). Also, this explains that the FCFE is a weaker indicator for measuring the value of an enterprise as a whole, but it is a measure used to assess stockholders' equity. The previous controversy indicates that the relative usefulness of the FCFF is greater than the usefulness of the FCFE in interpreting the value and performance of a corporation as a whole. Also, the previous controversy leads us to formulate the first, second and third hypotheses for this study, as follows:

- H1 The free cash flow to the firm [FCFF] has usefulness in explaining the whole performance of the firm [ROA].*
- H2 The free cash flow to the equity [FCFE] has usefulness in explaining the whole performance of the firm [ROA].*
- H3 The usefulness of free cash flows to firm is greater than the usefulness of free cash flow to equity in explaining the whole performance of the firm [ROA].*

### **The FCF for Valuing Stockholder's Equity**

The free cash flows to equity [FCFE] is the most appropriate variable that explains the market value of the company's stock compared to the free cash flows to firm [FCFF] (Rupic et al., 2017; Ahmed et al., 2018). This fact is based on the argument that this variable represents the cash available to the stockholders (Al Zararee & Al-Azzawi, 2014; Ragab, & Hani, 2018). The success of this fact leads us to build a concrete explanatory model of the market value of the company's stock (Gardner, McGowan & Moeller, 2009). The previous discussion proves that the FCFE is the best variable to explain the change in the market value of the stock compared to FCFF. This controversy leads us to build a hypothesis says that the usefulness of FCFE in explaining the stock returns is greater than the FCFF. The previous controversy indicates the relative benefit of the FCFE is greater than the benefit of the FCFF in explaining stock prices of a corporation. Also, the previous controversy leads us to formulate the fourth, fifth and sixth hypotheses for this study, as follows:

- H4 The free cash flow to the equity [FCFE] has usefulness in explaining stock returns.*
- H5 The free cash flow to the firm [FCFF] has usefulness in explaining stock returns.*
- H6 The usefulness of free cash flow to equity is greater than the usefulness of free cash flow to firm in explaining stock returns.*

## **LITERATURE REVIEW**

As of to date, there are very few papers that have explored the information content of free cash flow to firm and free cash flows to equity. For instance, (Rupic et al., 2017) present practical approach towards the discounted cash flow of the company (free cash flow to the firm and free cash flow to equity) as valuation method. Rupic et al., (2017) concludes that the free cash flow to equity and the free cash flow to the firm give value for equity valuation. Also, (Shrieves, & Wachowicz, 2001) shows that the free-cash-flow valuation approach (FCF) is mathematically

equivalent to the discounting of appropriately defined economic profits under the Economic Value Added [EVA™] approach.

The pioneer author, (Jensen, 1986) theorizes that free cash flows increases agency costs because the managers of corporations with high FCF employ it on buying negative net present value investments for the purpose of sustaining their ego and possibly for increasing their own rewards. Many authors agree that the managers should not buy negative NPV investments and must instead pay the free cash flows as dividends to the shareholders. If managers want to buy new investments, they should do so using borrowed capital rather the free cash flows (Jensen, 1986; Mann & Sicherman, 1991; Opler & Titman, 1993; Dhumale, 1998; Carroll & Griffith, 2001; Freund et al., 2003; Heydari et al., 2014; Rupic et al., 2017; Ahmed et al., 2018).

The previous discussions prove that the relative usefulness of the FCFE and the FCFF is greater than of free cash flows (FCF) in valuation models. Many authors (Thanatawee, 2011; Al Zararee & Al-Azzawi, 2014; Heydari et al., 2014; Kusuma, 2014; Rupic et al., 2017; Ahmed et al., 2018) show that the FCFE and FCFF are used in valuing a company. It is important to differentiate between the firm value and stockholders equity value. The firm value is the value of the entire firm without taking its capital structure into account, while equity value is the value attributable to stockholders, which includes any additional cash and eliminate all debts. This indicates that the FCFE is used for explaining the value of stockholders' equity while the FCFF is used for explaining the value of the firm.

In Malaysia, (Atqa et al., 2019) shows that a strong usefulness of operating cash flows and its components.

In Bangladesh, (Ahmad et al., 2018) shows a positive relationship between free cash flows and stock return of the corporations that listed on Dhaka Stock Exchange.

In Egypt and Lebanon, (Ragab & Hani, 2018) examines whether the information contents of Operating Cash Flows (OCF) vary among banks listed on the Egyptian Stock Exchange and banks listed on the Beirut Stock Exchange. The paper finds that OCF is positively and significantly associated with stock prices in the ESE and in the BSE. Furthermore, regression reveals that earnings are higher concerning value- relevant for banks listed on the ESE compared with the BSE.

In Jordan, (Al Zararee & Al-Azzawi, 2014) confirms a positive relationship between the free cash flows to equity (FCFE) and market value of the firm. Also, in Jordan, (Salem & Khasharmeh, 2007) shows that free cash flow to equity has incremental information contents beyond accounting earnings, but does not have incremental information content beyond net cash flow from operations.

In United States, (Gardner et al., 2009) shows a positive impact of the FCFE in explaining the market value of Coca-Cola company.

In Iran, (Kaviani, 2013) indicates that there is a significant and positive relationship between the FCFF and the FCFE with the performance. Also, (Pouraghajan et al., 2012) indicates that, the earnings have more information contents than operating cash flows in explaining stock returns.

In Taiwan, (Shrieves, & Wachowicz, 2001) proves that there is a positive impact of the free cash flows on the performance of the firm.

In Thailand, (Thanatawee, 2011) examines dividend policy of Thai listed companies over the period 2002-2008. The results show that larger and more profitable firms with higher free cash flows to equity tend to pay higher dividends.

Based on the above-mentioned previous literatures, the FCFE has value relevance in explaining stock price greater than the FCFF. This paper will provide evidence from the Palestine Exchange regarding this issue.

## RESEARCH METHODOLOGY

### Study Sample and Sources of Data

The study sample covered the listed Palestinian companies in Palestine Exchange; PEX there are 48 companies from various sectors, 13 industrial, 11 services, 10 investments, 7 banking, and 7 insurances. The data were collected from the investors' guide by Palestine Exchange and companies' annual reports based on the following conditions:

1. All data are available.
2. The company was listed on the Palestine Exchange before 2014.
3. The company should not be financial institution (bank or insurance were excluded).
4. The company should not be investment company.

According to Palestine Exchange 2015 annual report, the bourse includes seven banks, seven insurance companies, ten investment companies and six nonfinancial companies were established after 2014 which were eliminated from the study sample due to lack of sufficient information or violating sample selection conditions. As a result, after eliminating 30 companies, the final study sample will be 18 companies (9 industrial and 9 service) which signify 37.5% of the inventive study sample. This paper employs descriptive statistics, Jarque-Bera, correlation matrix, regression analysis, and Akaike info criterion for model selection using data from 2015–2019.

### Measurement of Variables

The following Table 1 summarises the measurement of the dependent, independent and control variables.

<b>Table 1</b>		
<b>LABELS AND MEASUREMENT OF VARIABLES</b>		
<i>Dependent variables</i>	<i>Label</i>	<i>Measurement</i>
Stock Returns	$R_{it}$	$= \text{Log} ((P_{it} - P_{it-1})/P_{it-1})$ Where: $R_{it}$ : stock return of firm I for period t. Log: natural logarithm. $P_{it}$ : share market price of firm I at the end of the year t. $P_{it-1}$ : share market price of firm I at the beginning of year t.
Return on Assets	$ROA_{it}$	$= NI_{it}/TA_{it}$ Where: $ROA_{it}$ : return on assets of firm I for period t. $NI_{it}$ : net income of firm I for period t. $TA_{it}$ : total assets of firm I for period t.
<i>Independent variables</i>		
Free Cash Flows to Firm	$FCFFPS_{it}$	$= OCFPS_{it} + ICFPS_{it}$ $= [EBIT_{it} (1-TR_t) + NCE_{it} + \Delta WC_{it} - CE_{it}] / [WANCSO_{it}]$ Where: $FCFFPS_{it}$ : free cash flows to firm per share of firm I for period t. $OCFPS_{it}$ : operating cash flows per share of form I for period t (this figure will be extracted directly from the statement of cash flows).

		<p>ICFPS<sub>it</sub>: investing cash flows per share of firm I for period t (this figure will be extracted directly from the statement of cash flows).                  EBIT<sub>it</sub>: earnings before interest and taxes of firm I for period t.                  TR<sub>t</sub>: tax rate for the period t.                  NCE<sub>it</sub>: non-cash expenses (depreciation, amortization and depletion) of firm I for period t.                  ΔWC<sub>it</sub>: Change in working capital of firm I for period t.                  CE<sub>it</sub>: capital expenditures of firm I for period t.                  WANCSO<sub>it</sub>: weighted average number of common shares outstanding of firm I for period t.</p>
Free Cash Flows to Equity	FCFEPS <sub>it</sub>	<p>= [FCFF<sub>it</sub> + I<sub>it</sub> (1 - TR<sub>t</sub>) + NB<sub>it</sub>] / [WANCSO<sub>it</sub>]                  Where:                  FCFE<sub>it</sub>: free cash flows to equity per share of firm I for period t.                  I<sub>it</sub>: interest expense of firm I for period t.                  TR<sub>t</sub>: tax rate for the period t.                  NB<sub>it</sub>: net borrowing of firm I for period t.</p>
<b>Control variable</b>		
Firm Type	FT <sub>it</sub>	<p>1: Industrial portfolio firms.                  2: Services portfolio firms.</p>

**Study Models**

In order to measure the relationship between free cash flows indicators (FCFF and FCFE) and firm’ performance (ROA and R); the study estimates the following linear regression models as explained in table 2.

<i>Hypothesis</i>	<i>Model</i>	<i>Model #</i>
Hypothesis [1]	$ROA_{it} = a_0 + a_1 FCFFPS_{it}$	(1)
Hypothesis [2]	$ROA_{it} = a_0 + a_1 FCFEPS_{it}$	(2)
Hypothesis [3]	Hypothesis three will be examined by using model selection test [Akaike Info Criterion: AIC]. The AIC test will compare model 1 and 2.	(3)
Hypothesis [4]	$R_{it} = a_0 + a_1 FCFEPS_{it}$	(4)
Hypothesis [5]	$R_{it} = a_0 + a_1 FCFFPS_{it}$	(5)
Hypothesis [6]	Hypothesis six will be examined by using model selection test [Akaike Info Criterion: AIC]. The AIC test will compare model 4 and 5.	(6)

**DATA ANALYSIS**

This part displays the descriptive statistics, correlation matrix, and the outcomes of the hypotheses.

**Descriptive Statistics**

Table 3 presents the descriptive statistics of ROA, R, FCFFPS, and FCFEPS for the pooled data of 18 corporations listed on the PEX from 2015-2019, 90 firm-year. The mean of ROA, R, FCFFPS, and FCFEPS is positive 0.0489, 0.0344, 0.1088 and 0.1876 respectively. The Jarque-Bera test for normality of residuals indicates that all the residuals aren’t normally distributed (Table 3).

	<b>ROA</b>	<b>R</b>	<b>FCFFPS</b>	<b>FCFEPS</b>
<b>Mean</b>	0.0489	0.0344	0.1088	0.1876
<b>Median</b>	0.0285	0.0357	0.0600	0.0685
<b>Maximum</b>	1.4887	0.6964	2.1925	2.4685
<b>Minimum</b>	-0.6219	-0.4772	-2.8952	-0.5558
<b>Std. Dev.</b>	0.1806	0.1851	0.4870	0.3938
<b>Skewness</b>	5.1321	0.7084	-1.4815	2.9033
<b>Kurtosis</b>	48.0603	5.4135	20.9496	15.3255
<b>Jarque-Bera</b>	8009.223	29.373	1241.134	696.1438
<b>Probability</b>	0.00	0.00	0.00	0.00
<b>Observations</b>	90	90	90	90

### Correlation Matrix

The outcomes of Jarque-Bera test prove that the time series data of ROA, R, FCFFPS, and FCFEPS do not follow the normal distribution. For this reason, a non-parametric test has been used (Spearman rank correlation). Table 4 demonstrates a significant positive relationship between ROA and stock returns (the correlation coefficient 32.7% and significant at 0.01). After that, the table reveals insignificant positive relationship between FCFFPS and stock returns (correlation coefficient 12.0%). As well, the table explains significant positive relationship between FCFEPS and stock returns (correlation coefficient 21.6% and significant at 0.05). Also, table 4 shows a significant positive relationship between ROA and FCFF (correlation coefficient 43.3% and significant at 0.01). As well, the table explains significant positive relationship between ROA and FCFE (correlation coefficient 58.5% and significant at 0.01). These outcomes require additional model selection tests in the next parts to examine the theory of the FCFF as explained in the theoretical framework and hypotheses development title in this paper. Finally, table 4 reveals a significant strong positive relationship between the FCFF and the FCFE (correlation coefficient 75.0% and significant at 0.01).

	<b>R</b>	<b>ROA</b>	<b>FCFFPS</b>	<b>FCFEPS</b>
<b>R</b>	1	0.327**	0.120	0.216*
<b>ROA</b>		1	0.433**	0.585**
<b>FCFFPS</b>			1	0.750**

\*\* Significant at 0.01, \* significant at 0.05

### The Results of the Hypotheses

In this part, the hypotheses will be examined by using the econometrics methods in order to introduce the first evidence from the PEX regards the theories of the explanatory power of the FCFF and the FCFE.

### The FCF for Valuing Company as A Whole

This part will present the outcomes of hypotheses one, two and three. The first hypothesis states that the free cash flow to the firm [FCFF] has usefulness in explaining the whole performance of the firm [ROA]. Table 5 shows that there is a positive insignificant impact of the FCFF in explaining the value and performance of a corporation as a whole using the ROA. In

addition, relying on the pooled data, the FCFE response coefficient [FCFERC] is positive and statistically insignificant at 0.05 [FCFERC = 0.080058]. In addition, R-square is 0.030461, and adjusted R-square is 0.019444. It is important to note that the FCFERC is positive and statistically significant at 0.10. Hence, this paper shows that there is no value relevance of the FCFE in explaining the ROA. Then hypothesis two is rejected. This result is not consistent with the previous literatures and a theory that indicates the relative usefulness of the FCFE is greater than the usefulness of the FCFE in interpreting the value and performance of a corporation as a whole. It is clear that there is no role for the FCFE in explaining the value of the company that listed on the PEX.

ROA <sub>it</sub> = a <sub>0</sub> + a <sub>1</sub> FCFE <sub>PSit</sub>				
Coefficient Name	Coefficient	Std. Error	t-Statistic	Prob.
a <sub>0</sub>	0.047901	0.019623	2.441026	0.016
a <sub>1</sub>	0.009600	0.039528	0.242876	0.808
R-squared	0.000670	Mean dependent var		0.048
Adjusted R-squared	-0.010686	S.D. dependent var		0.180
S.E. of regression	0.181633	Akaike info criterion		-0.551
Sum squared resid	2.903180	Schwarz criterion		-0.496
Log likelihood	26.82567	Hannan-Quinn criter.		-0.529
F-statistic	0.058989	Durbin-Watson stat		2.087
Prob(F-statistic)	0.808667			

The second hypothesis states that the free cash flow to the equity [FCFE] has usefulness in explaining the whole performance of the firm [ROA]. Table 6 shows that there is a positive insignificant impact of the FCFE in explaining the value and performance of a corporation as a whole using the ROA. In addition, relying on the pooled data, the FCFE response coefficient [FCFERC] is positive and statistically insignificant at 0.05 [FCFERC = 0.080058]. In addition, R-square is 0.030461, and adjusted R-square is 0.019444. It is important to note that the FCFERC is positive and statistically significant at 0.10. Hence, this paper shows that there is no value relevance of the FCFE in explaining the ROA. Then hypothesis two is rejected. This result is not consistent with the previous literatures and a theory that indicates the relative usefulness of the FCFE is greater than the usefulness of the FCFE in interpreting the value and performance of a corporation as a whole. It is clear that there is no role for the FCFE in explaining the value of the company that listed on the PEX.

ROA <sub>it</sub> = a <sub>0</sub> + a <sub>1</sub> FCFE <sub>PSit</sub>				
Coefficient Name	Coefficient	Std. Error	t-Statistic	Prob.
a <sub>0</sub>	0.033921	0.020912	1.622106	0.1084
a <sub>1</sub>	0.080058	0.048147	1.662773	0.0999
R-squared	0.030461	Mean dependent var		0.0489
Adjusted R-squared	0.019444	S.D. dependent var		0.1806
S.E. of regression	0.178906	Akaike info criterion		-0.5819
Sum squared resid	2.816632	Schwarz criterion		-0.5263
Log likelihood	28.18759	Hannan-Quinn criter.		-0.5595
F-statistic	2.764812	Durbin-Watson stat		2.0388
Prob(F-statistic)	0.099916			



The third hypothesis states that the usefulness of free cash flows to firm [FCFF] is greater than the usefulness of free cash flow to equity [FCFE] in explaining the whole performance of the firm [ROA]. This paper examines the relative usefulness of the FCFF and FCFE based on the equations one and two (see table 2). Then, it relies on the values of R-square, and the Akaike Information Criteria (AIC) [prefer the model with the smallest AIC]. The tables 5 and 6 show that the R-square of model two 0.030461 is greater than the R-square of model one 0.000670. Also, the AIC of model two is the smallest. Then hypothesis three is rejected. The controversial issue is that these outcomes are contrary to the theory. This may be due to a defect in the understanding of the published financial statements or because of the PEX is inefficient at the second level.

### The FCF for Valuing Stockholder's Equity

This part will present the outcomes of hypotheses four, five and six. The fourth hypothesis states that the free cash flow to the equity [FCFE] has usefulness in explaining stock returns. Table 7 illustrates that there is a positive insignificant impact of the FCFE in explaining stock returns using the R. Moreover, relying on the pooled data, the FCFE response coefficient [FCFERC] is positive and statistically insignificant at 0.05 [FCFFRC = 0.019684]. In addition, R-square is 0.001753, and adjusted R-square is -0.009591. Hence, this paper shows that there is no value relevance of the FCFE in explaining the stock returns. Then hypothesis four is rejected. This result is not consistent with the previous literatures and a theory that indicates the relative benefit of the FCFE is greater than the benefit of the FCFF in explaining stock prices of a corporation. It is clear that there is no role for the FCFE in explaining stock returns of the corporations that listed on the PEX.

$R_{it} = a_0 + a_1 \text{FCFEPS}_{it}$				
Coefficient Name	Coefficient	Std. Error	t-Statistic	Prob.
$a_0$	0.030779	0.021750	1.415098	0.1606
$a_1$	0.019684	0.050079	0.393053	0.6952
R-squared	0.001753	Mean dependent var		0.0344
Adjusted R-squared	-0.009591	S.D. dependent var		0.1851
S.E. of regression	0.186081	Akaike info criterion		-0.5032
Sum squared resid	3.047107	Schwarz criterion		-0.4477
Log likelihood	24.64830	Hannan-Quinn criter.		-0.4808
F-statistic	0.154491	Durbin-Watson stat		2.1607
Prob(F-statistic)	0.695231			

The fifth hypothesis states that the free cash flow to the firm [FCFF] has usefulness in explaining stock returns. Table 8 shows that there is a negative insignificant impact of the FCFF in explaining stock returns using the R. Furthermore, relying on the pooled data, the FCFF response coefficient [FCFFRC] is negative and statistically insignificant at 0.05 [FCFFRC = -0.040224]. In addition, R-square is 0.011192, and adjusted R-square is -0.000044. Hence, this paper shows that there is no value relevance of the FCFF in explaining the stock returns. Then hypothesis five is rejected. This result is not consistent with the previous literatures and a theory that indicates the relative benefit of the FCFE is greater than the benefit of the FCFF in explaining stock prices of a corporation. It is clear that there is no role for the FCFF in explaining stock returns of the corporations that listed on the PEX. This outcome may refer to a lack of efficiency of the

PEX at the second level or due to misunderstanding of the published information by Palestinian investors.

$R_{it} = a_0 + a_1 \text{FCFFPS}_{it}$				
Coefficient Name	Coefficient	Std. Error	t-Statistic	Prob.
$a_0$	0.038852	0.020009	1.941740	0.0554
$a_1$	-0.040224	0.040304	-0.998023	0.3210
R-squared	0.011192	Mean dependent var		0.0344
Adjusted R-squared	-0.000044	S.D. dependent var		0.1851
S.E. of regression	0.185199	Akaike info criterion		-0.5127
Sum squared resid	3.018293	Schwarz criterion		-0.4572
Log likelihood	25.07585	Hannan-Quinn criter.		-0.4903
F-statistic	0.996051	Durbin-Watson stat		2.1715
Prob(F-statistic)	0.321004			

The sixth hypothesis states that the usefulness of free cash flow to equity is greater than the usefulness of free cash flow to firm in explaining stock returns. This paper examines the relative usefulness of the FCFF and FCFE based on the equations four and five (see table 2). Then, it relies on the values of R-square, and the Akaike Information Criteria (AIC) [prefer the model with the smallest AIC]. The tables 7 and 8 show that the R-square of model five 0.001753 is greater than the R-square of model four 0.011192. Also, the AIC of model five is the smallest. Then hypothesis six is rejected. The controversial issue is that these outcomes are contrary to the theory. This may be due to a defect in the understanding of the published financial statements or because of the PEX is inefficient at the second level. This result contradicts the theory that explains it.

The hypotheses were reexamined by dividing the study sample into two portfolios. The first portfolio for the industrial sector and the second portfolio for the services sector and the same results were reached. Therefore, there is no motive to present the analysis to these portfolios. That is, there is no effect of the type of sector (industrial or service) on the results of the study.

## FINDINGS

This part displays the discussion of the results, and conclusion suggestion for future research.

### Discussion of The Results

This part provides a debate of the results that expose the value relevance of free cash flows indicators in explaining the stock returns and corporation's performance. This paper relies on the FCFF and FCFE theories. The FCFF theory that indicates the relative usefulness of the FCFF is greater than the usefulness of the FCFE in interpreting the performance of a corporation as a whole (ROA). The FCFE theory that indicates the relative benefit of the FCFE is greater than the benefit of the FCFF in explaining stock prices of a corporation (R: stock returns). This study found poor consistency with the previous literatures' consensus regarding the FCFF and FCFE theories. This result is dissimilar to previous studies that found significantly strong positive role of these variables in explaining the performance and stock returns at various countries (Salem and Khasharmeh, 2007; McGowan & Moeller, 2009; Thanatawee, 2011; Pouraghajan et al., 2012; Kaviani, 2013; Al Zararee & Al-Azzawi, 2014; Heydari et al., 2014; Rupic et al., 2017; Ahmed et

al., 2018; Ragab & Hani, 2018). The results achieved by this study were in contrary to the positive accounting theory due to many factors such as:

1. Inefficient PEX at the semi-strong level or at the weak level (Awad & Daraghma, 2009).
2. Lack of informational skills of Palestine Exchange stockholders (Daraghma, 2018).
3. Generally, Palestinian companies do not disclose the FCFF and FCFE within their financial statements, due to non-availability of such data (Daraghma, 2018; Daraghma, 2019).
4. Most stockholders in Palestine aren't experts' investors (Daraghma & Aqel, 2011; Abu Kars & Daraghma, 2016).

Palestine has adopted international accounting standards since 2005. And the statement of cash flows should be included in the published financial report of the Palestinian corporation that listed on the PEX based on (IAS 7). Despite that, the role of free cash flows is distorted. For that reason, most of Palestinian stockholders mistakenly understand the accounting numbers. Hence, it becomes the responsibility of the Palestinian corporations and the PEX to improve the financial culture of the current and potential stockholders to understand accounting figures in the correct manner.

### **Conclusion Suggestion for Future Research**

The main objectives of this paper are:

1. Examining the usefulness of the FCFF and the FCFE in explaining company's performance and its stock returns from the reality of the PEX.
2. Exploring the FCFF theory that indicates the relative usefulness of the FCFF is greater than the usefulness of the FCFE in interpreting the performance of a corporation as a whole (ROA).
3. Exploring FCFE theory that indicates the relative benefit of the FCFE is greater than the benefit of the FCFF in explaining stock prices of a corporation (R: stock returns). The sample consisted of 18 corporations that listed on the PEX (9 industrial and 9 service) which signify 37.5% of the inventive study population. This paper employs descriptive statistics, Jarque-Bera test, correlation matrix, regression analysis, and Akaike info criterion for model selection using data from 2015–2019. Based on the obtained results, there is no role of the FCFF and the FCFE in explaining company's performance and its stock returns. Also, the findings are inconsistent with the theories of the free cash flows.

Similar to other papers, this paper is riddled with limitations, and from these limitations, the paper suggests directions and further work for future pragmatic studies. The current paper focused on the corporations that located in the West Bank while the firms that located in Gaza Strip were ignored due to the political circumstances. Future authors could explore this issue from the reality of Gaza Strip. In the current paper, the researchers also concentrated on some accounting indicators of the free cash flows. Accordingly, future studies can integrate other accounting figures, free cash flows indicators, and disclosure requirements for free cash flows data. We do not examine the impact of the compliance with the IAS 7 (cash flows statement) instructions on the stock returns or performance of the corporations that listed on the PEX. We leave this interesting area for further research. Other limitation of this paper is the data that gathered from two sectors (industrial and service). Future authors could explore this issue by analyzing the data of the banking, insurance and investment sectors. Additionally, future authors can extend the reasons of a lack of value relevance of free cash flows indicators in Palestine. We recommend other authors to explore the usefulness of all cash flows indicators in other stock markets. Also, this study recommends the future studies to consider the impact intermediate variables (e.g. firm's

growth, firm's level of risk and firm's size) on the specifications of this paper. Although the previous mentioned limitations, this paper provides new knowledge that proved the existence of huge gap in the role of free cash flows indicators in explaining the performance and stock returns of the listed industrial and service corporations on the PEX.

Finally, yet importantly, this paper recommends the Palestine Exchange and the leaders of the listed corporation on the PEX to take a decision that effectively leads to improve the financial culture of current and potential shareholders in Palestine. It also recommends the PEX and its listed companies to comply with the disclosure requirements and in accordance with the international accounting standards, and follow efficient stock markets practices. We think that the accounting education, Palestinian Auditors Association, corporations, accounting bodies, and Palestine Exchange in Palestine should correct this shortcoming rapidly.

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