Abdalmuttaleb M. A. Musleh Al-Sartawi
Abdulnaser Ibrahim Nour   *Editors*

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Abdulnaser Ibrahim Nour
Editors

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Editors
Abdalmuttaleb M. A. Musleh Al-Sartawi
College of Business and Finance
Ahlia University
Manama, Bahrain

Abdulnaser Ibrahim Nour
Department of Accounting, Faculty
of Business and Communication
An-Najah National University
Nablus, Palestine, State of

The Impact of Covid-19 on Conservatism for Palestinian Firms Listed at PEX

Ghassan Daas and Yasmeen Omar

Abstract This research testing the impact of the Covied-19 on conservatism with the presence the financial indicators as control variables through the most popular financial performance indicators. Three variables represent conservatism were used as dependent variables (Book to market value (BTM), Accruals, and growth in provisions), whereas the Covid-19 treated as (dummy) independent variable measured by (0,1) for 2018–2021, responded for before and after Covied-19 measurement. 33 firms listed at PEX surveyed with its three main sectoral classification (industrial, investment, service). Data were extracted from PEX web-page and the published financial audited statements for the listed firms. The research findings indicates that there is a change in the values for both the dependent variables and the control variable mainly the dependent ones before and after the (Covied-19) pandemic. The analysis indicates that there is significant impact on the conservatism sub-variables mainly for the book to market value, Accruals, and growth in provisions. And some impact of the control variables mainly for DA, ROE, and CR. The research recommend that the provisions, the book value, the market value shall be controlled and assessed through pandemics, and firms have to take care of establishing provisions so as to highlight the expected risk of pandemics.

Keywords Conservatism · Covied-19 · KPIs · PEX

1 Introduction

(COVID-19) has spread all over the world; it continues to spread in uncontrollable manner and affecting all economies, especially the operations of listed firms [1]. While Covid-19 Pandemic continues to spread at the operational level with increasing economic, social and financial risks such as bankruptcy and fraud flouting on the surface. Stock markets around the world suffered historical losses in the first three

G. Daas (✉) · Y. Omar
An-Najah-National University, Nablus, Palestine
e-mail: Daas@najah.edu

months of the year 2020. Investors and other stakeholders need high-quality financial information more than ever [2].

Given the significant impact that the (COVID-19) on the global economy, it is certain that it has an impact on the main performance indicators of institutions, which are financial performance indicators as one of the techniques for measuring the safety of the company's financial position, through which the ability to achieve its specific goals is recognized [3]. The financial KPIs is closely related to one of the main business objectives, which should be an integral part of the success of the organization and not just a business goal [4].

The sudden collapse in the stock market and the increase in uncertainty about the future profits expectations of the entities led to the outbreak of a tense market for investors, and thus investors become more averse to risk, and the urgent need for accounting information appears in all transparency during the period of market stagnation or downturns [5].

When unexpected circumstances and risks occur, the urgent need for the application of sound accounting principles and procedures appears, and the negative impact of not applying them under unstable conditions is reflected. Where accounting principles are defined as the general rules and principles of accounting that companies must follow when disclosing all their accounts and financial statements [6].

Conservatism means that potential losses must be recognized and backed up through the formation of provisions, while potential profits are never taken into account [7].

The importance of research emerges from the impact of (COVID-19) over the world. And, in light of the importance of practicing the principle of accounting conservatism, which would mitigate the impact of economic and political fluctuations on companies, and its reflection on the results of their work and the investors. Through this research, one of the most important effects of the (COVID-19) will be identified on the application of accounting conservatism for firms listed on the Palestine Exchange, and examine the impact covid-19 on the key financial performance indicators for the listed companies at PEX.

2   Problem Statement

The accounting conservatism pursued by the firm's management affects the process of preparing the financial statements, as the accounting conservatism is followed, which imposes on the management the selection of accounting policies and standards by recording the lowest value of assets and revenues, and the highest values of expenses and obligations [5]. According to [8] the companies with the least conservative financial reports witnessed a decline in investment activity after the beginning of the global financial crisis 2007–2008, compared to the more conservative companies that witnessed a smaller decline in the performance of the stock and the indebtedness of the companies. Through the pandemic companies varies for their response to the

pandemic, and the performance indicators and the conservatism variable can assist in assessing the impact of the pandemics and control the performance.

The problem of the research concentrating to the extent of the impact of the Covid-19 on the accounting conservatism in the listed Palestinian companies, and based on that, the study shall answer the following question: What is the impact of the Covid-19 on accounting conservatism for the firms listed on the Palestine exchanges?

3 Theoretical Framework and Hypothesis Development

Accounting Conservatism: The concept of accounting conservatism is called by some with caution or prudence, which means caution in taking expected losses into consideration before they occur, and caution not to take actual expected profits into consideration except when they are achieved. As for prudence, it is a careful and rational reaction to cases of uncertainty [6].

The principle of accounting conservatism is one of the most prominent accounting treatments that have attracted the attention of many writers in the accounting literature, and researchers in recent times and the interest in the principle of accounting conservatism has evolved to the applied professional field [9]. Accounting conservatism is important in controlling management's behavior. It pushes management to use accounting policies that support the company's financial position in the first place, and preserve the interests of the many parties associated with it despite the conflict or compatibility of these interests, especially shareholders and debt holders [5]. The principle of accounting conservatism it works to restrict using liberal accounting policies that they may exploit to achieve financial interests for themselves or for a certain party at the expense of another party or parties, which poses a threat to the safety and efficiency of the firm's financial position, and works to upset the required balance between the stakeholders associated with it, thus reducing its market value [10].

Financial Key Performance Indicators (KPIs): are parameters use to track, measure, and analyze the financial health of the firm. These indicators fall under many categories, including profitability, liquidity, solvency, and efficiency [11]. And many studies dealt with issue of performance indicators, and they were defined as tools that help measure the extent to which results are achieved within the organization for specific related activities [12]. KPIs can be defined as summary indicators, which can be used to monitor and verify performance and quality of services provided in any organization during a certain period [13]). Key performance indicators help evaluate the overall performance of the organization in terms of achieving its organizational goals compared to the main goals plan set by the organization [14].

Corona Pandemic: Coronaviruses are a large family of viruses which cause illnesses ranging from the common cold disease to more severe diseases, such as Middle East Respiratory Syndrome (MERS-CoV) and severe acute respiratory syndrome (SARS-CoV). The novel coronavirus (nCoV) is a new strain that has not

been previously identified in humans [15]. It is the spread in most countries or regions, and usually causes the infection of a large number of the world's population [16].

The impact of the Covied-19 **on the economies of the world**: Covied-19 led to a slowdown in economic growth rates and led many countries into recession due to its impact on the trade movement, supply baskets, asset prices, primary commodities and even future decisions for investors [17]. The report issued by the International Monetary Fund on the prospects for the regional economy in the Middle East, North Africa, Afghanistan and Pakistan region, indicated that the Middle East and Central Asia region reacted quickly to the global pandemic of Covid-19, and took strict measures that saved many lives. However, these policies also had a significant impact on local economic activity. With many countries in the region beginning to reopen their economies, and activity has recently improved, risks may have arisen from an increase in the number of people infected with the disease. The adverse effects were compounded by the sharp drop in oil prices coupled with production cuts in oil-exporting countries and disruption to trade and tourism. As a result, growth in the region is now expected to reach 4.7% in 2020, two percentage points lower than projected in April 2020 [18]. Also the pandemic affects the thinking bahavior, [19] recommends for designing training programs for employees in order to help them to adapt for different circumstances and to enable them to continue performing their work.

The impact of the Covied-19 on the Palestinian economy: The emergence of the Corona virus in Palestine led to declaring a state of emergency in it and taking a number of precautionary measures to limit its spread, including disrupting the educational process, closing markets, restaurants, clubs and cafes, thus freezing the activities of civil society institutions, which worked to have economic repercussions that affected the various aspects of life in the Palestinian society [20]. According to the Palestinian Central Bureau of Statistics (PCBS), based on what happened due to the Corona crisis, expected that economic growth in Palestine would decline by 14% during the year 2020 compared to the year 2019, as a result of economic losses (GDP) which were estimated at about $5.2 billion compared to the normal situation for the year 2020, This resulted in a decrease in total public and private consumption by about $3.1 billion, a decrease in investment by about $1.2 billion, and a decline in imports by about $1 billion [21].

Hypotheses development

Several studies mentioned the accounting conservatism, and most of the applied studies concluded that there is a relationship between the degree of accounting conservatism, smoothing profits, (EPS), and the return on assets, and that there is no relationship between accounting conservatism and the quality of profits, and that there is a negative relationship between earnings management and the application of accounting conservatism. Several models for measuring accounting conservatism, the most famous of which is the (Basu 1997) model and (the book value to market value ratio scale (BTM), the conservatism index (Score-C), and the approach that is based on accruals [6, 22, 23]. This research consentrated on three models ((the book value to market value ratio scale (BTM), and the approach that is based on accruals).

The relationship between accounting conservatism, (company size and cash flows) was tested on the risks of corporate bankruptcy, and the results showed that there is a statistically significant inverse relationship between accounting conservatism and bankruptcy indicators, and there is an inverse relationship between company size and insolvency index, and operating cash flows have a significant adverse effect on Bankruptcy indicator [24].

After the pandemic hit the stock markets sharply, and the liquidity crisis erupted, boring reduced cash flows and increased the risk of inability to pay. Consequently companies faced unprecedented risks and uncertainty regarding their financial indicators and future profits. Investors resort to relying on financial information from reliable sources, information about the company's true values becomes more important to investors, and therefore transparent information reduces uncertainty regarding the real values of the enterprise and reduces the perception of risks [25–27].

So, the first hypothesis will be as is:

H1: There is no statistically significant impact of the (Covid-19) on the accounting conservatism for the Palestinian listed companies.

Previous studies agreed on the importance of KPIs in evaluating the financial performance of firms. It was indicated that the low level of production and operating expenses with its relation to sales and low financial leverage are important factors for good financial performance [28]. According to [29] that there is a strong negative relationship between financial leverage and the financial performance of firms. [30] Found that there is a strong positive relationship between monitoring the financial indicators of firms and warding off the risks of default, which means that it gives an important indication about the firm's financial position [31]. Found that liquidity risk is one of the most important risks facing companies, which had a significant impact of the Corona pandemic on the liquidity of 26 companies around the world. And early warning of the risks expected for the future.

Qabbani et al. [32] found that the pandemic affected the economies of the world as a whole, as many sectors collapsed and led to a high level of unemployment, and the bankruptcy of many companies. While Samir, [33] found that the pandemic had a positive impact on the volume of sales of consumer goods, sterilizers, cleaning materials and pharmaceutical companies, and also increased banking operations in Egypt due to fear of stock trading, while it negatively affected the aviation and travel sectors due to the quarantined [34]. Concluded that Almarai Company was positively affected by the pandemic and achieved revenue growth compared to the same period of previous years.

H2: There is no statistically significant impact of the (Covid-19) on the financial performance indicator for the Palestinian listed companies.

Table 1 Population/Sample

Market	Sector	Before Covid-19	After Covid-19
PEX	Investment	11	10
	Service	9	8
	Industry	13	11
Total		33	29

4 Method and Procedures

Books, periodicals, magazines used as secondary sources of research subject, whereas the published audited financial statements for the listed firms was the main source of data in addition to the data available at PEX, mainly for KPIs for 2018–2021.

4.1 Population and Sample of the Research

The research population consisted of all Palestinian firms listed at PEX for Investment, Service and Industrial sectors, with all the firms with its published data, and where required indicators extracted from PEX. Two sectors were excluded banking and insurance as of the financial nature of those sectors (Table 1).

4.2 Research Variables

Dependent variable: (1) Accounting conservatism: Accounting conservatism does not encourage exaggeration of profits and enhances the verifiability of accounting information, which enhances the credibility of the entity's financial reports and reduces the risk of bankruptcy.

Variable	Variable measurement
Growth in the proportion of provisions	A provision is a liability of uncertain timing or amount. The amount recognized as a provision should be the best estimate of the expenditure required to settle the present obligation at the balance sheet data" [35]. The growth in provisions means to be conservative about expected losses and obligations
Book value to market value (BTM)	Book value/market value [6]
Accruals-based approach	UA_ACC = Net profit—operating cash flow [6]

Independent dummy variable: (COVID-19), as independent dummy variable for comparison purpose, where the value of "1" is assigned to all observations during COVID-19 and "0" to the prior COVID-19.

Control variable

(1) **Profitability KPIs**: These indicators convey how well a company can generate profits from its operations:

Variable	Variable measurement
EPS	**EPS: Earning Per Share (EPS)** Basic EPS = profit or loss attributable number/ ordinary shares outstanding during the period [35]. EPS is an indicator used for management performance [36]
ROE	Represents return generation on common stocks of shareholders and is recognized as an important financial indicator for owners. And is an indicator used for management performance [36] ROE = net income /shareholders' [1]

(2) **Liquidity KPIs**: measure a company's ability to pay off its short-term debts.

Variable	Variable measurement
CR	Current ratio = Current liabilities/Current assets
WC	Working capital = current assets − current liabilities

(3) **Solvency KPIs**: "leverage" compares a company's debt levels with its assets, equity, and earnings.

Variable	Variable measurement
D/A	Debt-to-assets ratio = Debt/Assets

4.3 Statistical Methods Used

1. Descriptive analysis: to describe the data of the research sample through the measure (arithmetic mean).
2. Paired Samples t-Test that compares the means of two measurements for the same sample where an action took place in different time periods.
3. Correlation analysis to test multicollinearity, and Hausman test for random and fixed effect regression.
4. Financial indicators Analysis: to clarify the behavior of each indicator and the Covid-19 impact in the research sample.

Table 2 Descriptive analysis

Covid 19 period	Stats	EPS	ROE	CR	WC	DA	Book to market value	Accruals-based approach	Growth in the proportion of provisions
Before 2018–2019	Mean	0.196	0.042	2.346	6,275,976	0.338	1.160	0.033	0.340
After 2020–2021	Mean	0.230	0.050	2.417	8,400,505	0.344	0.830	0.016	1.562

5 Testing Hypotheses

Hypotheses were tested using Paired Samples t-Test to compare the means of two measurements taken and the observation was treated as one same sample observations before and after the Covid-19, and the results were as follows:

5.1 The Descriptive Analysis

As presented in Table 2 the EPS, ROE were increased as a result of effect of the industrial sector through the Covid-19 period [1], whereas the CR, WC were increased as a result of accounts receivable and inventory. The BTM, Accruals, were in decreasing and sensitive to the result of profit, operating cash flow, book and market values. In general it is clear that all the indicators and variable were in change, which indicates the impact of the Covid-19 through the infected period. And there was an increase in the Growth in the proportion of provisions as a result of the Covid-19 associated risk.

5.2 Correlation, and Multicollinearity Test

As per the results presented in Table 3, the correlation coefficients with maximum value of 0.59 between CR and WC. All below 0.80 which indicated that there is no Multicollinearity impact.

5.3 Testing the impact of on the dependent variables

By testing the impact of Covid-19 on conservatism through it three sub-variables variables (BTM, Accruals, and Growth in provisions), the paired sample t-test was

Table 3 Correlations

Variable	EPS1	ROE	CR	WC	DA	Book to market value	Accruals-based approach
EPS	1						
ROE	0.5191	1					
CR	0.0854	0.3246	1				
WC	0.0387	0.1178	0.5902	1			
DA	— 0.0371	— 0.2927	— 0.5033	— 0.1065	1		
Book to market value	— 0.2138	— 0.1349	— 0.1706	— 0.2402	— 0.1626	1	
Accruals-based approach	0.22	0.2482	— 0.2918	— 0.1372	0.0588	0.018	1
Growth in the proportion of provisions	— 0.0736	— 0.1498	0.0625	— 0.0589	— 0.0509	0.0923	— 0.0963

Table 4 Paired samples t-Test

Paired Differences 95% Confidence Interval					
Sector	Mean		Observations	Sig. (2-tailed)	Impact
	Before	After			
Book to market value	1.16	0.83	57	0.00	(−)
Accruals-based approach	0.033	0.016	57	0.391	(−)
Growth in the proportion of provisions	0.340	1.562	57	0.310	(+)

used. Table 4 it indicates that there is significant impact of the Covid 19 on BTM value, whereas there is no impact on accruals, and growth in provisions, even the means indicates differences but not statistically significant

5.4 Testing the Impact of the Control Variables

Before testing the impact of the control variables, it is worth to run the Hausman test to decide which type of regression to be used (fixed or random effect regression). From Table 5 and by investigating the results, it is appear that before and after Covied-19 the most appropriate regression were settled.

Accordingly Table 6 summarize the results of the regression models comparing the coefficient of determination (R2) results before and after the Covid-19 that the three sub-variable of conservatism most impacted mostly impacted by the control variable before the pandemic than after the pandemic. And by examining the P Value

Table 5 Hausman test, fixed and random effect regression

Dependent variable versus (EPS, ROE, CR, WC, DA)	Hausman Test—Prob > chi2 0.05		Fixed versus random regression	
	Before	After	Before	After
Book to market value	0.866	0.244	Random	Random
Accruals-based approach	0.166	0.0006	Random	Fixed
Growth in the proportion of provisions	0.446	0.0148	Random	Fixed

Table 6 Regression analysis results

Dependent	Control V	Before			After		
		Coefficient	R2	P > t [95% conf	Coefficient	R2	P > t [95% conf
Book to market value	EPS	− 0.349	0.194	0.275	− 0.269	0.145	0.297
	ROE	0.478		0.570	− 0.075		0.945
	CR	− 0.114		0.037	− 0.059		0.373
	WC	1.4 e−09		0.713	− 6.06 e−09		0.167
	DA	− 1.618		0.001	− 1.03		0.164
Accruals-based approach	EPS	− 0.044	0.271	0.266	− 0.039	0.184	0.706
	ROE	0.874		0.000	0.533		0.059
	CR	− 0.02		0.005	− 0.185		0.000
	WC	5.8 e-10		0.368	4.4 e−10		0.711
	DA	0.040		0.962	− 0.513		0.288
Growth in the proportion of provisions	EPS	0.341	0.055	0.764	8.95	0.007	0.179
	ROE	− 2.54		0.601	− 26.87		0.123
	CR	0.113		0.639	4.29		0.075
	WC	− 7.5 e−09		0.66	− 1.19 e−07		0.119
	DA	− 1.64		0.427	− 59.06		0.058

for the period before the Covid-19, the debt to assets ratio, ROE, and the current ratio have an impact, whereas after the Covid-19 the CR only has significant influence.

6 Conclusion

Through the analysis of the research findings, Table 7 present:

- The behavior of both the dependent variables and the control variable through the Covid-19, the signs (+, −) indicated positive or negative change.

Table 7 Findings summary

	Financial performance indicators (impact)							
	EPS	ROE	CR	WC	DA	Book to market value	Accruals-based approach	Growth in the proportion of provisions
Impact	+	+	+	+	+	−	−	+

- The results of testing the impact of Covid-19 on conservatism through it three sub-variables variables (BTM, Accruals, and Growth in provisions). BTM and Accruals-based approach with a negative impact, whereas Growth in provisions with positive impact, which indicates that companies react to the risk associated with covied-19 and increase the provisions. But in testing the paired sample t-test for Equality of Means, the Book to market value indicate significant differences in means, whereas no significant differences in means for the accruals, and growth in provisions.
- For the period before the Covid-19, the debt to assets ratio, ROE, and the current ratio have an impact on conservatism whereas after the Covid-19 the CR only has significant influence.

7 Recommendations:

The consequences of the pandemic can be reduced based on the findings of the research, and thorough analysis of factors that mostly affected. It is recommended to enhance the operational efficiency, control the sensitive measures and indicators such as the liquidity measures CR, the working capital, the DA, and the growth of its provisions. It is recommended to be conservative so as to be realistic in presenting the business results and asses the Covid-19 impact and direct intervention on the right track. The results indicates that investors shall ethically served by disclosing the level of risks by provisions behavior which appear to be sensitive to the risk appraisal.

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