Volume 19 Issue 27
Originally issued as D3



Global Journal of Management and Business Research: D
Accounting and Auditing
Volume 19 Issue 3 Version 1.0 Year 2019
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Relationship Between Accounting Variables and Market Price of Shares - A Case Study of Jordan

By Dr. "Mohammad Khair" Qaseem Sadeq Al-Jarrah

Abstract- Relationship Between Accounting Variables and Market Price of Shares: essential theme of this paper is to examine the information content of accounting variables relating to the market price of the shares of listed companies in Jordan. For the purpose of the analysis, four accounting variables have been selected viz., ROE, Growth rate, Interest Coverage Ratio, and Total Assets Turnover Ratio. Panel Data regression has been done to analyze the impact of the select accounting variables on the market price of the shares. Descriptive statistics have calculated to understand the characteristics of the variables used in regression analysis. In other words, indicates a difference between Market Price and Book Value. If the ratio is more than one, it elucidate that the shares are valued at a premium. On the other hand, if ratio is less than one, it a denotes that the shares are valued at a discount. There are no studies on the analysis of the information content of accounting variables in predicting the stock price movement. To fill the research gap, in the present study, analysis of the information content of accounting variables was made by using the panel data regression model.

Keywords: *accounting variables. market price.*

GJMBR-D Classification: *JEL Code: M40*



Strictly as per the compliance and regulations of:



© 2019. Dr. "Mohammad Khair" Qaseem Sadeq Al-Jarrah. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http://creativecommons.org/licenses/by-nc/3.0/), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Relationship Between Accounting Variables and Market Price of Shares - A Case Study of Jordan

Dr. "Mohammad Khair" Qaseem Sadeq Al-Jarrah

Abstract- Relationship Between Accounting Variables and Market Price of Shares: *essential* theme of this paper is to examine the information content of accounting variables relating to the market price of the shares of listed companies in Jordan. For the purpose of the analysis, four accounting variables have been selected viz., ROE, Growth rate, Interest Coverage Ratio, and Total Assets Turnover Ratio. Panel Data regression has been done to analyze the impact of the select accounting variables on the market price of the shares. Descriptive statistics have calculated to understand the characteristics of the variables used in regression analysis. In other words, indicates a difference between Market Price and Book Value. If the ratio is more than one, it elucidate that the shares are valued at a premium. On the other hand, if ratio is less than one, it a denotes that the shares are valued at a discount. There are no studies on the analysis of the information content of accounting variables in predicting the stock price movement. To fill the research gap, in the present study, analysis of the information content of accounting variables was made by using the panel data regression model. In the following sections of this chapter, the relationship between select Accounting Variables and Price to Book Value ratio is analyzed individually for six select industries viz., Chemical Industry, Engineering and Construction Industry, Food and Beverages Industry, Mining and Extraction Industry, Pharmaceutical Industry and Textiles, Leathers and Clothing Industry.

Keywords: *accounting variables. market price*.

I. Introduction

Today, any responsive, economic entity aims to invest in providing relevant and up-to-date information to its users, hoping to get new investors while maintaining the existing ones. Also it achieves an increase in the volumes and the value of stocks that need to be traded and thus plays important role in activating the financial market. From here, we find that there are three important elements in the investment environment: the financial statements, the financial markets, and investment firms working in tandem to develop the investors. As Accounting Systems operate within complex economic entities, both national and international, it is statutorily compelled to keep up with new developments that help in their integration with the global standards, and that would eventually positively impact everyone.

Market prices of the shares traded in the stock market should reflect. The intrinsic value of the shares. The intrinsic value of the shares is primarily dependent on the future earning potential of the company. The most predominant source of assessing the future gaining prospects of a company is Financial Statements and additional information provided in Annual Reports. Most widely used tool to analyze and evaluate the performance of a company is Accounting Ratios. Accounting Ratios are the results of establishing a logical relationship between various items of the financial statements. As the market price of the shares is expected to reflect the fundamentals of the company, it is legitimate to forecast that Accounting Ratios contain information about the market price of the shares. The market price, being an absolute measure, is not useful for comparison. Hence, there is a need for relative comparison of share prices of different companies in the market. Two commonly used valuation measures are Price to Earnings ratio and Price to Book Value ratio.

II. Statement of the Problem

In light of this, the present study aimed to examine the level of awareness of the investors on the information content of financial statements and how they assign importance to various aspects of financial statements. Besides, it is also the need of the hour to study whether the market price of the shares reflects the fundamentals of the company. Hence, investors are also interested in factor in the solvency and liquidity conditions of the company in pricing the shares. So, intuitively, we can establish a positive relationship between solvency and liquidity conditions and the market price of the shares. However, risk - seeking investors are more interested in profitability rather than solvency and liquidity conditions of the company.

III. Objectives

The specific objectives are:

- To evaluate the information content of accounting variables in predicting the market price of shares listed on the Amman stock exchange.

Author: *e-mail: jarrah2000mk@gmail.com*

© 2019 Global Journals

a) Hypotheses

H0: Accounting variables (Return on Equity. Interest coverage ratio, Growth Rate, Total Assets Turnover ratio) do not affect the market price of the shares of listed companies.

H1: Accounting variables (Return on Equity, Interest coverage ratio, Growth Rate, Total Assets Turnover ratio) affect the market price of the shares of listed companies.

b) Sample

For this purpose of analysis of the relationship between accounting variables and the market price of the shares, listed companies in six industries have been selected. The industry-wise selected companies and their market capitalization are under as.

Table 1.1: Sample of the Selected Companies and their Market Capitalization as on 31-12-2016(in JD)

Sl. No.	Company	Market Capitalization	% to Industry Capitalization
Chemical Industry			
1	Arab Pesticides & Veterinary Drugs Mfg. Co.	21,840,000	27.89
2	Comprehensive	8,977,500	11.46
3	Industrial-Comm-AGR	31,258,853	39.92
4	Intermediate Petrol Chemicals Industries Co. Ltd.	2,240,000	2.86
5	Jordan Chemical Industries	2,519,474	3.22
6	Jordan Industrial Resources	3,657,500	4.67
7	National Chlorine Industries	5,850,000	7.47
8	Premier Business and Projects	1,157,107	1.48
9	Universal Chemical Industries	810,000	1.03
Total Market Capitalization of the Industry		78,310,434	100.00
Engineering and Construction Industry			
1	Al Assad	2,880,000	3.25
2	Al Quds Ready Mix	2,685,609	3.03
3	Arabian Steel Pipes	13,140,000	14.82
4	Jordan Pipe Manufacturing	3,146,000	3.55
5	Jordan Wood Industries	7,800,000	8.80
6	Ready- mix Concrete & Construction	59,000,000	66.55
Total Market Capitalization of the Industry		88,651,609	100.00
Food and Beverages Industry			
1	Arab Intl Food Factories	22,575,000	11.28
2	General Investment	30,500,000	15.24
3	Jordan Dairy	24,240,000	12.11
4	Jordan Poultry Processing	9,957,040	4.98
5	Jordan Veg Oil Industries	6,600,000	3.30
6	National Poultry	31,500,000	15.74
7	Siniora Food Industries	63,600,000	31.78
8	Universal Modern Industries	11,160,000	5.58
Total Market Capitalization of the Industry		200,132,040	100.00

© 2019 Global Journals

Mining and Extraction Industry			
1	Arab Aluminium Industry	13,500,000	0.54
2	Arab Potash	1,749,678,000	70.15
3	General Mining Company	2,985,000	0.12
4	International Silica Industrial	7,810,490	0.31
5	Investments&Integrated Industries	14,500,000	0.58
6	Jordan Cement Factories	77,973,353	3.13
7	Jordan Marble Company	4,000,000	0.16
8	Jordan Phosphate Mines	410,250,000	16.45
9	Jordan Steel	16,450,000	0.66
10	National Aluminium Industrial	4,860,000	0.19
11	National Oil&Electricity Production	2,450,000	0.10
12	National Steel Industry	2,647,591	0.11
13	Northern Cement Co.	166,100,000	6.66
14	Travertine Company	2,898,000	0.12
15	United Iron & Steel Mfg	18,012,499	0.72
Total Market Capitalization of the Industry		2,494,114,933	100
Pharmaceutical Industry			
1	Arab Centre for Pharma & Chemicals	3,800,000	2.75
2	Dar Aldawa	58,000,000	42.01
3	Hayat Pharmaceutical Industries	20,330,000	14.73
4	Jordan Pharmaceutical Manufacturing co.	19,996,875	14.48
5	Mid Pharma	13,126,545	9.51
6	Philadelphia Pharmaceuticals	22,800,000	16.52
	Total Market Capitalization of the Industry	138,053,420	100.00
	Textiles, Leathers ,and Clothing Industry		
1	Akari for Industries ,and Real Estate	2,280,000	2.14
2	Arab Weavers Union Company	26,400,000	24.78
3	Century Investment Group	11,732,926	11.01
4	El-Zay Ready Weak Mfg	3,000,000	2.82
5	Jordan Clothing Company	1,040,000	0.98
6	Jordan Worsted Mills	62,100,000	58.28
Total Market Capitalization of the Industry		106,552,926	100.00

Source: Computed from Data Compiled from Amman Stock Exchange

c) Tools of Analysis

The analysis of the impact of accounting variables (ROE, Growth rate, Interest coverage ratio and total assets turnover ratio) on the market price of the shares done by employing panel data regression with cross-section fixed effects. Besides, descriptive statistics for the variables used in the regression model.

Relationship Between Accounting Variables and Market Price of the Shares of Listed Companies in Chemical Industry of Jordan

This section presents the results of the analysis of information content of accounting variables in predicting the market price of the shares of listed companies in the Chemical Industry of Jordan from 2012 to 2016. There are nine companies belonging to

© 2019 Global Journals

chemical industry listed on the Amman stock exchange. The company-wise market capitalization as on 31st December/ 2016 has been presented. The descriptive statistics on the four Accounting Variables selected for the analysis, apart from Price to Book Value ratio. The results of panel data regression have along with the cross-sectional fixed effects of the individual companies.

Table 1.2: Estimation of Price to Book Value Ratio based on Select Accounting Ratios [Chemical Industry]

Variable	Coefficient	Std. Error	t-statistic	Slang
Return on Equity	0.042	0.026	1.611	0.117
Interest Coverage Ratio	0.010	0.003	2.771	0.009
Growth Rate	-0.048	0.028	-1.730	0.094
Total Assets Turnover Ratio	-0.086	0.108	-0.790	0.435
Constant	1.073	0.070	15.287	0.000
R-squared	0.886	F-statistic		20.058
Adjusted R-squared	0.842	Slang (F-statistic)		0.000
S.E. of regression	1.205			

Source: Computed from Data Compiled from Amman Stock Exchange

Table 1.2 furnishes the results of regression analysis performed to regress the Price to Book Value (PBV) ratio of the companies in the panel data on four accounting ratios viz., Return on Equity (ROE) ratio, Interest Coverage Ratio, Growth Rate, Total Assets Turnover ratio. The results of the analysis highlight that ROE has an insignificant positive impact while the growth rate has a significant negative on the Price to Book Value (PBV) Ratio. Interest Coverage Ratio has a significant positive, while Total Assets Turnover Ratio has an insignificant impact.

The positive impact of ROE implies that ROE signals the prospects of the company and hence, an increase in ROE of a company leads to an increase in the market price of the stocks. However, the positive impact of ROE is very weak statistically, as indicated by its associated 'p' value. The negative of growth rate may be ascribed to the reason that the number of companies have reported negative ROE and a few companies have paid dividend more than EPS.

Because of this reason, the growth rate of the majority of the companies was negative in this industry. Interest coverage ratio exerts the significant impact on the PBV ratio of the companies in chemical industry. It indicates that companies with higher interest coverage ratio perceived to be less risky, and hence, they are attractive for investment.

R-squared value is 0.89, which reveals that 89% of the variations in the PBV can be captured by the fitted regression model. Besides, F-statistic demonstrates the significant predictability of the regression model.

Table 1.3: Cross-Section Fixed Effects of the Companies in the Panel Data [Chemical Industry]

Sl. No.	Company	Effect
1	Arab Pesticides	2.037
2	Comprehensive	0.267
3	Industrial-Comm-AGR	0.526
4	Petrol Chemicals	-0.718
5	Jordan Chemical Industries	-0.237
6	Jordan Industrial Resources	-0.810
7	National Chlorine Industries	-0.436
8	Premier Business and Projects	-0.323
9	Universal Chemical Industries	-0.383

Source: Computed from data compiled from Amman Stock Exchange

© 2019 Global Journals

Table 1.3 shows the cross-section fixed effects of the companies which in the panel data regression. Cross-section fixed effects denote the difference between the average intercept presented in the panel data regression and actual intercept of the individual company.

As shown in the table, The company named Arab Pesticides has fixed effect of 2.037, which indicates that the actual intercept of this company is 2.037 units above the common intercept of the panel data regression. It shows comparatively largest upward distance between the common intercept and actual intercept of this company. On the other hand, Petrol Chemicals has a fixed effect of -0.810 which highlights that the actual intercept of this company is -0.810 units below the common intercept of the panel data regression. It points out the largest downward distance between this company's actual intercept and common intercept derived in the regression model.

Relationship Between Accounting Variables and Market Price of the Shares of Listed Companies in Engineering and Construction Industry of Jordan

This section encompasses the discussion on the analysis of the information content of Accounting Variables about the market price of shares of the companies belonging to the Engineering and Construction Industry. There are six companies listed on the Amman Stock Exchange, which belong to this industry. This section also provides the market capitalization of the listed companies as on 31st December/2016. Before, presenting the results of the regression analysis. Panel data regression analysis has been carried out with cross-section fixed effected and the results with detailed discussion.

Table 1.4: Estimation of Price to Book Value Ratio based on Select Accounting Ratios [Engineering and Construction Industry]

Variable	Coefficient	Std. Error	t-Statistic	Slang
Return on Equity	-0.011	0.018	-0.594	0.560
Interest Coverage Ratio	0.002	0.001	3.180	0.005
Total Assets Turnover Ratio	1.121	0.446	2.514	0.022
Growth Rate	-0.023	0.025	-0.914	0.373
Constant	0.263	0.269	0.978	0.341
R-squared	0.816	F-statistic		8.860
Adjusted R-squared	0.724	Slang (F-statistic)		0.000
S.E. of regression	0.341			

Source: Computed from Data Compiled from Amman Stock Exchange

Table 1.4 shows the results of regressing Price to Book Value (PBV) ratio on four Accounting Ratios, i.e. Return on Equity (ROE) ratio, Interest Coverage Ratio, Growth Rate ,and Total Assets Turnover ratio. Out of the four independent variables, only two have shown a significant impact. Interest coverage ratio and total assets turnover ratio have positive. It brings to light the fact that investor give importance to liquidity condition and also the operating efficiency of the companies in their investment decisions.

The R-squared value points out that 82% of the variations in the Price to Book Value ratio can be explained by the fitted regression model. F-statistic highlights that the predictability of the model is significant.

Table 1.5: Cross-Section Fixed Effects of Companies in Panel Data [Engineering and Construction Industry]

Sl. No.	Company	Effect
1	Al Assad	-0.461
2	Al Quds Ready Mix	-0.508
3	Arab Steel Pipes	0.352
4	Jordan Pipe Manufacturing	-0.186
5	Jordan Wood Industries	-0.336
6	Readymix Concrete & Construction	0.969

Source: Computed from Data Compiled from Amman Stock Exchange

© 2019 Global Journals

Table 1.5 shows the cross-section fixed effects of the companies in the panel data of the Engineering and Construction industry. As shown in this table, the panel data includes six companies. The common intercept of the panel data regression is 0.263.

The cross-section fixed effects imply the distance between common intercept and actual intercept of the individual companies. Companies named Al Assad, Al Quds Ready Mix, Jordan Pipe Manufacturing and Jordan Wood Industries have the actual intercept below the common intercept of the panel data regression. On the other hand, companies named Arab Steel Pipes and Ready mix Concrete & Construction have the actual intercept above the common intercept of the Panel Data Regression.

Relationship Between Accounting Variables and Market Price of the Shares of Listed Companies in Food And Beverages Industry of Jordan

This section contains the analysis of the information content of the select accounting variables about the market price of the shares. There are eight listed companies belonging to this industry. The market capitalization of all the eight listed companies as on 31st December/2016 has been provided. To gain insights into the variables used in the regression analysis, descriptive statistics has been presented for the cross-sectional data of the listed companies from 2012 to 2016. Next, Panel Data Regression analysis have been performed with cross-section fixed effects ,and results are presented in detail.

Regression Analysis of the Listed Companies in the Food and Beverages Industry of Jordan

For analysis of the efficacy of information content of select accounting variables in predicting the Price to Book Value ratio of the listed companies in the Food and Beverages industry of Jordan, OLS Regression model has been employed. In the Regression analysis, Price to Book Value ratio has been used as the dependent variable, and four Accounting Variables viz., Return on Equity (ROE), Interest Coverage Ratio, Growth Rate, and Total Assets Turnover Ratio are used as independent variables.

Table 1.6: Estimation of Price to Book Value Ratio based on Select Accounting Ratios [Food and Beverages Industry]

Variable	Coefficient	Std. Error	t-Statistic	Slang
Return on Equity	0.044	0.029	1.518	0.142
Interest Coverage Ratio	0.000	0.000	0.152	0.881
Growth Rate	-0.040	0.031	-1.268	0.217
Total Assets Turnover Ratio	-0.461	0.272	-1.692	0.104
Constant	1.213	0.201	6.025	0.000
R-squared	0.794	F-statistic		8.427
Adjusted R-squared	0.700	Slang (F-statistic)		0.000
S.E. of regression	0.282			

Source: Computed from Data Compiled from Amman Stock Exchange

Table 1.6 furnishes the results of Robust regression analysis. Price to Book Value ratio has been regressed on ROE, Interest Coverage Ratio, Growth Rate, and Total Assets Turnover Ratio. None of the predictor variables have a significant impact on the dependent variable. The Total Assets Turnover Ratio has moderate negative impact, as its 'p' value is closer to a 10% level of significance. The negative impact of Total Assets Turnover Ratio can be attributed to the reason that companies may indulge in aggregate sales promotion practices to augment the turnover, and it makes them less profitable. It will have a negative impact on the stock price of such companies.

Table 1.7: Cross-Section Fixed Effects of Companies in Panel Data [Food and Beverages Industry]

Sl. No.	Company	Effect
1	Arab Intl Food Factories	-0.766
2	General Investment	-0.119
3	Jordan Dairy	0.024
4	Jordan Poultry Processing	-0.148
5	Jordan Veg Oil Industries	-0.003
6	National Poultry	-0.245
7	Siniora Food Industries	1.054
8	Universal Modern Industries	0.136

Source: Computed from Data Compiled from Amman Stock Exchange

© 2019 Global Journals

Table 1.7 shows the cross-section fixed effects of the companies in the panel data of the Food and Beverages industry. As shown in this table, the panel data includes eight companies. The common intercept of the panel data regression is 1.213, as shown in table 4.23. The cross-section fixed effects imply the distance between common intercept and actual intercept of the individual companies. Companies named Arab Intl Food Factories, General Investment, Jordan Poultry Processing, Jordan Veg Oil Industries, and National Poultry have the actual intercept below the common intercept of the panel data regression. On the other hand, companies named Jordan Dairy, Siniora Food Industries and Universal Modern Industries have the actual intercept above the common intercept of the Panel Data Regression.

Relationship Between Accounting Variables and Market Price of the Shares of Listed Companies in Mining and Extraction Industry of Jordan

This section encompasses the analysis of information content of select Accounting Variables in predicting the market price of the shares of the listed companies in the Mining and Extraction Industry. Just like in the preceding sections, Price to Book Value ratio has taken as a relative measure of the market price of the shares of the companies.

There are fifteen listed companies in this industry. At the outset, the market capitalization of the fifteen listed companies has presented as on 31st December/2016. To understand the characteristics of the variables used in Panel Data Regression analysis, descriptive statistics have presented for the cross-sectional data of the listed companies. The characteristics of the variables, Panel Data Regression analysis has done with cross-section fixed effects.

Panel Data Regression Analysis of the listed Companies in Mining and Extraction Industry of Jordan

Analysis of the information content of select Accounting Variables in predicting the Price to Book Value ratio has been carried out by employing a Panel Data Regression model. The analysis has done under the framework of cross-sectional fixed - effects model. In this regression analysis, Price to Book Value ratio has been used as the dependent variable, and four accounting variables have been used as predictors viz., Return on Equity Ratio, Interest Coverage Ratio, Growth Rate ,and Total Assets Turnover Ratio.

Table 1.8: Estimation of Price to Book Value Ratio based on Select Accounting Variables [Mining and Extraction Industry]

Variable	Coefficient	Std. Error	t-Statistic	Slang
Return on Equity Ratio	0.026	0.012	2.206	0.032
Interest Coverage Ratio	-0.001	0.002	-0.434	0.666
Growth Rate	-0.025	0.012	-2.083	0.042
Total Assets Turnover Ratio	0.485	0.152	3.203	0.002
Constant	1.185	0.085	13.975	0.000
R-squared	0.864	F-statistic		19.707
Adjusted R-squared	0.820	Slang (F-statistic)		0.000
S.E. of regression	0.686			

Source: Computed from Data Compiled from Amman Stock Exchange

Table 1.8 provides the results of regression analysis done to analyze the impact of select accounting variables on the market price of the shares of the companies in the Mining and Extraction Industry. For this purpose, Price to Book Value ratio uses as the dependent variable, and independent variables are Return on Equity (ROE), Interest coverage ratio, Growth rate ,and Total Assets Turnover Ratio. Panel data regression has performed with cross-section fixed effects.

Results of the analysis bring to light the fact that the ROE and Total Assets Turnover ratio have a positive impact on the Price to Book Value ratio. However, the Total Assets Turnover ratio is more intense compared to that of ROE has indicated by the p' values. The question of the trade-off between financial performance and operating performance arises, investors tend to give more weight to operating performance.

On the other hand, Growth Rate has the negative impact on the Price to Book Value ratio of the companies in the industry. It can impute to the reason that most of the companies had reported negative ROE and also, a few companies have paid dividend more than the EPS. Impact of Interest Coverage Ratio is not significant.

R-squared value highlights that the fitted regression model can capture nearly 86% of the variations in the Price to Book Value ratio. F-statistic reveals that the predictability of the model is significant.

© 2019 Global Journals

Table 1.9: Cross-Section Fixed Effects of the Companies in Panel Data [Mining and Extraction Industry]

Sl. No.	Company	Effect
1	Arab Aluminium Industry	-0.670
2	Arab Potash	0.849
3	General Mining Company	1.306
4	international Silica Industrial	3.726
5	Investments & Integrated Industries	-0.229
6	Jordan Cement Factories	-0.349
7	Jordan Marble Company	-1.022
8	Jordan Phosphate Mines	-0.808
9	Jordan Steel	-1.027
10	National Aluminium Industrial	-1.128
11	National Oil & Electricity Production	0.643
12	National Steel Industry	-0.454
13	Northern Cement Co.	0.531
14	Travertine Company	-0.844
15	United Iron & Steel Mfg	-0.525

Source: Computed from Data Compiled from Amman Stock Exchange

Table 1.9 consists of the cross-section fixed effects of the companies in the panel data of Mining and Extraction Industry. As shown in Table 4.31, the common intercept of the panel data regression model is 1.185.

The values of cross-section fixed effects bring to light the fact that five companies named Arab Potash, General Mining Company, International Silica Industrial, National Oil & Electricity Production and Northern Cement Company have the actual intercepts bigger than common intercept derived in panel data regression model. On the other hand, ten companies named Arab Aluminium Industry, Investments & Integrated Industries, Jordan Cement Factories, Jordan Marble Company, Jordan Phosphate Mines, Jordan Steel, National Aluminium Industrial, National Steel Industry, Travertine Company and United Iron & Steel Manufacturing company have the actual intercept lower than the common intercept generated in panel data regression. It is obvious that the companies with actual intercept lower than the common intercept are more than the companies with actual intercept larger than the common intercept.

Relationship Between Accounting Variables and Market Price of the Shares of Listed Companies in the Pharmaceutical Industry of Jordan

Panel Data Regression Analysis of the Listed Companies in Pharma Industry of Jordan

Analysis of information content of Accounting Variables in predicting the Price to Book Value ratio of the companies listed on Amman stock exchange were done by employing Panel Data Regression model. In this regression, Price to Book Value ratio was regressed on four accounting variables viz., Return on Equity (ROE), Interest Coverage Ratio, Growth Rate, and Total Assets Turnover Ratio. Panel data regression analysis was performed with cross-sectional fixed effects.

Table 1.10: Estimation of Price to Book Value Ratio based on Select Accounting Ratios [Pharma Industry]

Variable	Coefficient	Std. Error	t-Statistic	Slang
Return on Equity	-0.013154	0.353	-2.521	0.022
Interest Coverage Ratio	0.002347	0.060	-0.220	0.829
Growth Rate	-0.009749	0.005	0.503	0.622
Total Assets Turnover Ratio	4.437275	0.060	-0.163	0.873
Constant	-0.890555	0.689	6.439	0.000
R-squared	0.936	F-statistic		24.802
Adjusted R-squared	0.898	Slang (F-statistic)		0.000
S.E. of regression	0.457			

Source: Computed from Data Compiled from Amman Stock Exchange

© 2019 Global Journals

Table 1.10 furnishes the results of regression analysis. The Price to Book Value ratio has been regressed on four accounting ratios viz., Return on Equity (ROE) and Interest Coverage ratio, Growth Rate, and Total Assets Turnover ratio. The regression analysis was done under the framework of panel data regression with cross-sectional fixed effects. ROE only has a significant negative impact on the Price to Book Value ratio of the companies. Such a counter-intuitive result may attribute to the unsuitable information content of the accounting variables in explaining the stock price.

Table 1.11: Cross-Section Fixed Effects of the Companies in Panel Data [Pharma Industry]

Sl. No.	Company	Effect
1	Arab Centre for Pharma & Chem	1.145
2	Dar Aldawa	-0.605
3	Hayat Pharmaceutical Industries	-0.367
4	Jordan Pharma	-0.885
5	mid pharma	-0.021
6	Mid Pharma	1.669
7	Philadelphiapharma	-0.356

Source: Computed from Data Compiled from Amman Stock Exchange

Table 1.11 delineates the cross-section fixed effects of the Pharma companies in panel data. The common intercept of the panel data is -0.890555, as shown in table 4.39. There are six companies in the panel data used in the regression analysis. There are two companies which have actual intercept larger than the common intercept obtained in panel data regression viz., Arab Centre for Pharma & Chemicals and Mid Pharma. On the other hand, there are four companies which have actual intercept lower than the common intercept derived in panel data regression viz., Dar Aldawa, Hayat Pharmaceutical Industries, Jordan Pharma, and Philadelphia pharma. It points out that the companies which have the intercept below the industry average intercept are more than the companies which have the intercept above the industry average.

Relationship Between Accounting Variables and Market Price of the Shares of Listed Companies in Textile, Leathers and Clothing Industry of Jordan

This section comprises the discussion on the results of the analysis of the information content of the select Accounting Variables in predicting the market price of the shares. There are six listed companies in this industry. The market capitalization of all the listed companies in this industry as on 31st December/ 2016 has been presented. To study the insights of the variables used in the regression model, descriptive statistics has been presented in detail. Descriptive statistics have calculate on the cross-sectional data of the listed companies in this industry from 2012 to 2016. Finally, Panel data regression analysis was performed with cross-section fixed effects. Results of the regression were discussed in detail.

Panel Data Regression Analysis of the Listed Companies in Textile, Leathers and Clothing Industry of Jordan

Analysis of information content of select Accounting Variables in predicting the Price to Book Value ratio was done by employing Panel Data Regression model. The regression used Price to Book Value Ratio as the dependent variable and four accounting variables viz., Return on Equity (ROE) ratio, Interest Coverage Ratio, Growth Rate, and Total Assets Turnover Ratio as predictors. The regression analysis was done with cross-sectional fixed effects.

Table 1.12: Estimation of Price to Book Value Ratio Based on Select Accounting Ratios[Textile, Leathers and Clothing Industry]

Variable	Coefficient	Std. Error	t-Statistic	Slang
Return on Equity Ratio	0.032	0.103	0.312	0.759
Growth Rate	-0.046	0.104	-0.442	0.664
Interest Coverage Ratio	0.000	0.002	-0.194	0.848
Total Assets Turnover Ratio	-0.311	3.457	-0.090	0.929
Constant	1.197	1.212	0.988	0.336
R-squared	0.652	F-statistic		3.739
Adjusted R-squared	0.477	slang(F-statistic)		0.008
S.E. of regression	0.579			

Source: Computed from Data Compiled from Amman Stock Exchange

© 2019 Global Journals

Table 1.12 furnishes the results of regression analysis. In this regression model, Price to Book Value ratio of the companies in Textile, Leather and Clothing industry is used as a dependent variable and four Accounting Variables viz., Return on Equity (ROE), Interest Coverage Ratio, Growth Rate, and Total Assets Turnover Ratio were used as predictors. The analysis was performed under the panel data regression framework with cross-section fixed effects.

The results of the study reveal that ROE and ICR have a positive effect on PBV ratio while growth rate and 'Total Assets Turnover Ratio' have a negative effect. But, none of the independent variables have a significant effect, as by the values of 'p' ($p>0.05$ However, jointly all the four variables have their influence on the PBV ratio, as shown by the significant value of F-statistic.

Table 1.13: Cross-section Fixed Effects of the Companies in Panel Data [Textile, Leathers and Clothing Industry]

	Company	Effect
1	Akari for Industries and Real Estate	1.285315
2	Arab Weavers Union Company	0.535005
3	Century Investment Group	-0.022592
4	El-Zay Ready Weak Mfg	-0.626556
5	Jordan Clothing Company	-0.579892
6	Jordan Worsted Mills	-0.417772

Source: Computed from Data Compiled from Amman Stock Exchange

Table 1.13 provides the cross-section fixed effects of the companies in panel data of Textile, Leathers, and Clothing Industry. The panel data has six companies. The panel data regression results show that common intercept is 1.197, as shown in table 4.47. The values of cross-section fixed effects indicate how the regression results of individual companies deviate from the industry in respect of the intercept values Accompanied with them. The results of the analysis point out that two companies named Akari for Industries, and Real Estate and Arab Weavers Union Company have the actual intercept above the common intercept derived in the panel data regression. On the other hand, remaining four companies named Century Investment Group, El-Zay Ready Wear Manufacturing, Jordan Clothing Company and Jordan Worsted Mills have the real intercept below the common intercept obtained in the panel data regression.

The Comparison of the Predictability Accounting Variables

In this sub-section, comparison of the predictability of accounting variables was done among the six different industries selected for the analysis. As the nature of the operating and investing and finance activities of the companies differ from industry to industry, the information content of the accounting variables in predicting the market price of the shares may also vary. Because/the accounting variables measure the results of the three types of activities of the business. In light of this, it is pertinent to make the comparison among the six select industries concerning the information content of the chosen accounting variables. The comparison can provide valuable insights into the fundamentals of the companies which are influencing the market price of the shares.

Table 1.14: Regression Beta Coefficient values of Accounting Variables and their Significance

Variable	Chemical Industry	Engineering & Construction	Food & Beverages	Mining & Extraction	Pharma	Textile, Leather & Clothing
ROE	0.042	-0.011	0.044	0.026**	-0.013**	0.032
ICR	0.010**	0.002**	0.000	-0.001	0.002	-0.0003
Growth Rate	-0.048*	-0.023	-0.040	-0.025**	-0.010	-0.046
TATR	-0.086	1.121**	-0.461	0.485**	4.437	-0.311
Constant	1.073**	0.263	1.213**	1.185**	-0.891**	1.197

*(** indicates 5% level of significance, * indicates 10% level of significance)*
Source: Computed from Data Compiled from Amman Stock Exchange

Table 1.14 presents the truncated version of the results of the regression analysis done for each select sector. Return on Equity has positive impact on the Price to Book Value ratio in case of the chemical industry, Food & Beverages industry, Mining and Extraction Industry and Textile, Leather Clothing industry. But, the statistical significance was established only in case of Mining and Extraction Industry. It uncovers the fact that investors value the shares with premium in case of the companies in those industries which earn comparatively better returns. In the case of the Engineering & Construction industry, ROE has an insignificant negative impact. In the case of Pharma industry the ROE has a significant negative influence on

© 2019 Global Journals

the PBV ratio. Such counter- intuitive results can impute to the bigger deviations in the data and low sample size.

The positive impact of Interest Coverage Ratio can be observed in the case of the chemical industry, Engineering & Construction industry, Food & Beverages industry, and Pharma industry, but statistical significance was established only in the case of the Chemical Industry and engineering & construct industry. It points out that higher the interest coverage ratio, greater the market price of shares. It brings to light the fact that in case of those industries having a hugger amount of interest payable about EBIT perceive to be risky. So, investors tend to discount the market price of shares of the companies with a larger amount of interest payable.

The Negative effect of growth rate can be noticed in the case of all of selected industries, but the statistical significance of the impact was established only in case of the Chemical Industry and Mining & Extraction Industry. It is worthwhile to remember that the growth rate of a company is estimated based on retained earnings of the company. So, higher the retained earnings, bigger the growth rate of the company. The negative impact of growth rate on the Price to Book Value ratio brings to focus the fact that the investors in those industries prefer distribution of dividend rather than plow back of profits for the expansion of business activities. Such preference of the investors can attribute to the reason that the internal average of return of the companies in the industry may be lower than the expected rate of return.

Total Assets Turnover ratio has a positive impact in case of Engineering & Construction Industry, Mining & Extraction Industry, and Pharma industry. It implies that operating efficiency perceived to the main determining factor for the success of a company. Hence, investors value the companies with higher Total Assets Turnover Ratio at a fair premium.

Table 1.15: Diagnosis of Regression Models

Industry	Adjusted R-Squared	Standard Error	D-W Statistics	F-Statistic	JB Test
Chemical Industry	0.842	1.205	1.939	20.058*	10.022
Engineering & Construction Industry	0.724	0.341	2.150	8.860*	1.812
Food & Beverages Industry	0.700	0.282	3.045	8.427*	56.492
Mining & Extraction Industry	0.820	0.686	1.562	19.707*	2.895
Pharma Industry	0.898	0.457	3.319	24.802*	0.587
Textile, Leather and Clothing Industry	0.477	0.579	0.618	3.739*	1.6477

(indicates 1% level of significance)*
Source: Computed from Data Compiled from Amman Stock Exchange

Table 1.15 presents a consolidated view of the diagnosis of the regression model. Highest adjusted R-squared value was reported in case of pharma industry followed by chemical industry indicating the comparatively better predictability of the regression model.

On the other hand, comparatively lowest adjusted R-squared is derived for the panel data regression for the companies in the textile, leather, and clothing industry. It demonstrates that the proportion of variations in the dependent variable captured by the fitted panel data regression is only 48%. It highlights comparatively poor predictability of the regression model.

Under none of the regression models, the Durbin-Watson Statistic value is less than Adjusted R-squared. It indicates that the results of the regression are not spurious. For all the regression models, F-statistic is significant which implies that the data suits well to the regression model and also the predictability of the model is statistically significant.

Jarque-Berra test is meant to test the null hypothesis that residuals obtained from the regression model are normally distribute ,the null hypothesis is accepted for all the industries except for Food ,and Beverages industry. As the residuals are normally distributed, the results of the regression are reliable and generalization of the results can make more effectively.

IV. Conclusion

- The main objective of the present paper is to examine the efficacy of the accounting variables in predicting the market price of the shares of the listed companies in Jordan. To achieve the said objective the listed companies belonging to six different industries was chosen. The industries selected include Chemical Industry, Engineering, and Construction Industry, Food and Beverages Industry, Mining & Extraction Industry, Pharmaceutical Industry, and Textile, Leather and Clothing Industry. A panel data set is prepared for the listed companies in each industry and panel

© 2019 Global Journals

data regression analysis has been performed with cross-sectional fixed effects.

- In the Chemical industry, Engineering & Construction industry, and Textile, Leather & Clothing Industry, the Interest Coverage Ratio was very low or negative. Finance theory asserts that debt is a double-edged sword. When a company earns stable earnings and cash flows of the company are sufficient to pay the fixed interest obligations, debt capital entails advantages to the equity holders by deductibility of interest expenditure for tax purpose. However, when the earnings of the company are highly volatile, and the company does not have sufficient cash flows, having debt in the capital structure may force a company into bankruptcy conditions, which entails many repercussions on the part of the company.
- In the case of Chemical Industry and Engineering & Construction Industry, the impact of Interest Coverage Ratio is significantly positive. It brings to light the fact that investors assign more importance to the liquidity condition of the companies .
- The Average growth rate of all the select industry was negative, except in food and beverages industry. Because of this fact, the coefficient of growth rate was also negative. It implies the positive impact of growth rate on the stock price.
- Significant positive effect of Total Assets Turnover Ratio in case of Engineering & Construction Industry and Mining & Extraction industry reveals that operating efficiently of the companies play a significant role in building the market momentum.
- Based on the overall results of the regression models, it can conclude that the select accounting variables jointly have significant information content in predicting the PBV ratio.

References Références Referencias

Website

1. https://www.ase.com.jo/ar
2. www.jsc.gov.jo/
3. http://www.addustour.com/0/
4. http://www.ase.com.jo/en/capital-markets-profile
5. www.temjournal.com
6. http://www.invstopedia.com/terms/f/financialaccounting.asp
7. http://accounting-simplified.com/financial/users-of-accounting-information.html

© 2019 Global Journals