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The Influence of Leverage and Profitability on Earnings Quality: Jordanian Case

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Abstract

The fundamental target of financial accounting is to provide information helpful to investors in making forecasting about firms performance. The evolution of income reporting as the essential source for investor decision making has been well authenticated and income reporting helps economic society in a different ways. (Schroeder, et al., 2014)

The present study aims to survey the influence of leverage measured by debt ratio separately on Earnings Quality, and the influence of profitability measured by return on asset (ROA) separately on Earnings Quality, and finally the influence of leverage and profitability together on Earnings Quality.

The paper covered the period from 2011 to 2015, and employed some statistical techniques on all listed Islamic Banks at Amman Stock Exchange (ASE) to revealed that there is a significant influence of debt ratio on the listed Jordanian Industrial companies' Earnings Quality, and there is a significant influence of return on asset (ROA) on the listed Jordanian Industrial companies' Earnings Quality, Finally, there is a significant influence of leverage and profitability on the listed Jordanian Industrial companies' Earnings Quality

Keywords: Earnings Quality, Leverage, Profitability, and Amman Stock Exchange (ASE).

1. Introduction

According to International Accounting Standard NO.1 (2011) financial statements should provide users with good quality information and financial results. Also Financial Accounting Standards Board define the aim of financial reporting by providing financial information about the reporting entity that is helpful to current and future investors in making decisions about providing resources to the firm.(Czajor, et al., 2013)

Analysts and other users of financial statements are keenly interested in a firm's reported earnings because it allows them not only to assess past performance but also to predict future cash flows, which in turn influence securities prices. Since the 1970s, however, research has indicated that although reported earnings have some effect on securities prices, the effect is small. Accounting earnings are influenced by revenue-recognition policies and methods, the need to match revenues and expenses in certain time periods, and managers' judgments, all of

which can detract from their usefulness. (Schroeder, et al., 2014). Earnings Quality is dependent variable in this study; this study depends on the level of discretionary accruals to identify earnings Quality.

Earnings Quality is indicator to the capability of disclosed earnings that can more carefully predict the future cash flows. When the earnings quality is down means it cannot more accurately predict the future cash flows because if the reported earnings were managed so the prediction of future cash flows depends on this inexact disclosed amount of earnings will also be incorrect. Earnings can render more strictly to predict the future cash flows as compare to current cash flows due to accounting accruals because its provide more information to better prediction. While they can be managed by managers to present the better position of the firm therefore accruals may also be considered as bad prediction indicators for predicting the future cash flows. (Qamar, et al., 2015)

The contribution and significance of this investigation arise because it concentrate on the Earnings Quality reported by the Industrial Companies in the Amman Stock Exchange (ASE); given the importance of the industrial sector, and the diversity of its fields, as well as the role it plays in the Jordanian economy, which render the users that rely on those earnings to make right decisions. Also it aims to survey some factors such as debt ratio and return on asset (ROA) that influencing the Earnings Quality of the Jordanian Industrial companies.

2. Previous Studies

Ramadan (2015) revealed that financial leverage, firm's performance, investment decisions and accounting conservation, in existence of two control variables: firm's size and cash holding had a significant direct impact on Earnings Quality. The study covered the period 2000-2011, and applied Ordinary least square (OLS) cross sectional regression model on a sample consist of 58 manufacturing companies listed at Amman Stock Exchange (ASE) with 812 firm/year observation.

The relationship between debt and quality financing of disclosed earnings measured by modified Jones model for 276 non-financial firms was investigated by (Qamar, et al., 2015). The study covered the period from 1998 to 2009, also applied regression analysis on panel data. The results conclude a negative relationship between low amount of debt and disclosed earnings while a very high amount is positively related to the earning.

Hassan & Farouk (2014) found that leverage, liquidity and firm growth had a significant positive impact on earnings quality, however firm size, institutional ownership and profitability have a significant but negative influence on Earnings Quality. The study covered the period of 2007-2011, and applied multiple panel regression techniques on a sample of 7 out of 9 listed oil and gas companies in Nigeria.

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Karami & Akhgar (2014) concluded that company size had negative and significant relationship, and leverage had positive and significant relationship with financial reporting quality. The study covered the period from 2003 to 2012, and applied panel data method, first F – test of Limer and Hausman was used to select the best model among the panel data, fixed effects and random effects on 120 active companies in Tehran stock exchange.

Hassan & Bello (2013) study that applied correlation research design with pooled balanced panel data, the results revealed that large and more leveraged firms are less likely to manage earnings and increase in sales as long as institutional investors render as a monitoring instrument of preventing managers from manipulating earnings, profitability and independent directors had positive relationship with earnings quality measured by modified model of (Dechew & Dechev, 2002), on the other hand liquidity had inverse relationship with quality of financial reporting. Jointly, firm characteristics of 24 listed manufacturing firms in Nigeria had effected significantly on their financial reporting quality.

Shiri, et al., (2012) study which employed cross-sectional regression on companies listed at Tehran Stock Exchange found that there is a significant and positive relationship between the ratio of non-bound members to persistent and earning predictability, also the separation of the chairman or vice chairman and earning persistence and also, there is a significant relation between the percentages of institutional investors, accrual's quality, earning persistence. Finally, affect with control variables: size and leverage it can be explained that in large firms with high leverage have been more critical relationship between corporate governance techniques and earning quality.

The effect of leverage, sales and firm size, operation cycle, performance and the classification of the industry on Earnings Quality which expressed by 5 proxies: accrual quality, persistence, predictability, smoothness, and the quality of factorial earnings, was investigated by (Pagalung & Sudibdyo, 2009) study which covered the period from 2005 until 2010. The results revealed that leverage variable had a significant relationship with five proxies of Earnings Quality, than sales and firm size that found a significant relationship with four proxies of Earnings Quality. Operation cycle, performance and the classification of the industry resulted in two proxies of Earnings Quality.

Shivakumar (2005) study showed that the private company financial reporting quality is not affected by controls for size, leverage, industry membership and auditor size, or by permitting spontaneous growth of listing choice. The result improves understanding of private companies, which are prevalent in the economy. It also supply insight into the economics of accounting standards.

Hypotheses

Main Hypothesis

H_{01}: There is no significant influence of leverage and profitability on the listed Jordanian Industrial companies' Earnings Quality.

Sub Hypothesis

H_{11}: There is no significant influence of debt ratio on the listed Jordanian on listed Jordanian Industrial companies' Earnings Quality.

H_{21}: There is no significant influence of return on asset (ROA) on the listed Jordanian Industrial companies' Earnings Quality.

3. Research Methodology

The sitting search seeks to find the influence of leverage measured by debt ratio separately on the Listed Jordanian Industrial companies' earnings quality, and the influence of profitability measured by return on asset (ROA) separately on the Industrial companies' earnings quality, and finally the influence of debt ratio and return on asset (ROA) jointly on the Listed Jordanian Industrial companies' earnings quality. The population consists of all listed industrial companies at Amman Stock Exchange (ASE) for the period from 2011 to 2015. The financial data will be gathered from the database available on (ASE) official website. Also, the study will use quantitative techniques by using the (Eviews) software such as Stability diagnostic-CUSUM test, , Ordinary lease square (OLS), Wald coefficient test, Correlation of residual value through Breusch-Godfrey, Unit Root Testing- Augmented Dickey Fuller Test, Correlation of residual value, Variance of the residual, Distribution of residuals-Jarque Bera statistics, and Regression analysis.

3.1. *The Research Sample*

The population of the current study will consist of all 62 listed Industrial companies at Amman Stock Exchange (ASE) for the period from 2011 until 2015. The study will investigates the financial reports for 30 industrial companies which selected based on a stratified sample those include150 observations. From the researcher point of view it is enough number to reach credibility and generalization.

4.2. *Variables of the Study*

4.2.1. Dependent Variable_ Earnings Quality

Earnings Quality: Earnings consist of two different parts cash flow and accruals; cash is objective and cannot be manipulated by the managers, and however accrual is very evaluative and manageable. It's easy to manipulate accrual items manager's interests, so decreasing the quality of earnings. Also, it is confusing stakeholders, for they will not be capable to evaluate the business's performance (Alipour, et al., 2014). Modified Jones model was used to measure Earnings Quality as:

$$NDAt = \alpha 1\ (1/At - 1) + \alpha 2\ [(\Delta REVt - \Delta RECt) / At - 1] + \alpha 3\ (PPEt / At - 1)$$

Where:
ΔRECt is net receivables in year t less net receivables in year t - 1,
NDAt is nondiscretionary accruals in year t scaled by lagged total assets;
ΔREVt is revenues in year t less revenues in year t - 1;
PPEt is gross property plant and equipment at the end of year t;
At - 1 is total assets at the end of year t - 1; and
α1, α2, α3 are firm-specific parameters (Bartov, et al., 2000)

4.2.2. Independent Variables – Debt Ratio, Return on Asset (ROA)

Debt Ratio: measure how the firm utilize fixed cost as financing sources.
It's computed as follows:

$$\frac{\textbf{Total Debt}}{\textbf{Total Shareholders' Equity}}$$

(Kaplan, 2012)

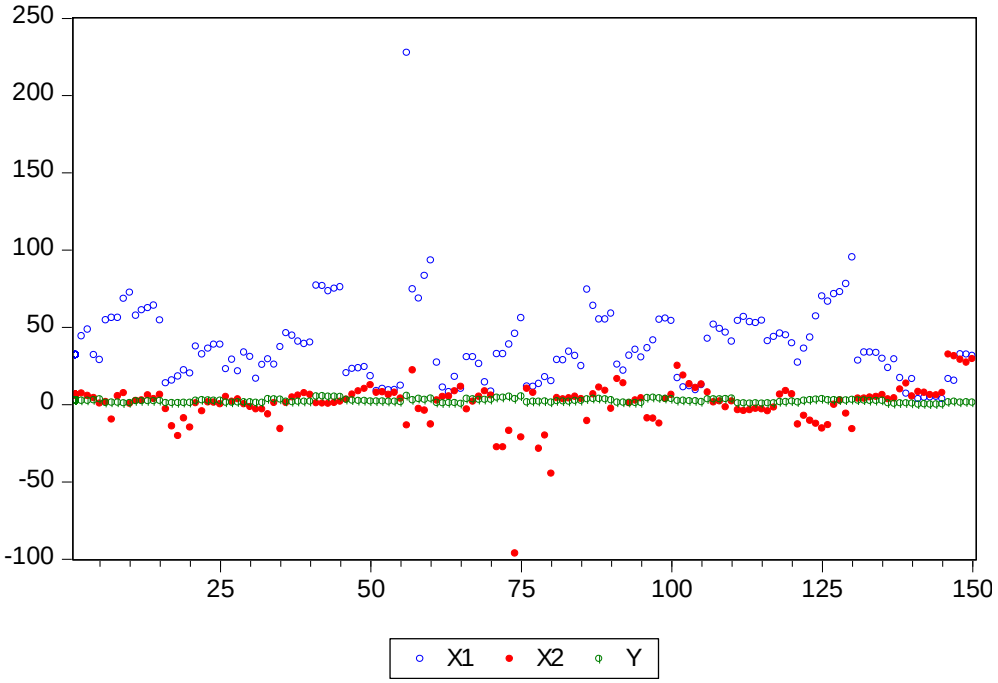
Return on Asset (ROA): Measure profitability comparative to capital invested in the firm by common stockholders, preferred stockholders, and suppliers of debt financing.
It's computed as:

$$\frac{\textbf{Net Income}}{\textbf{Average Total Assets}}$$

(Kaplan, 2012)

4. Data Analysis and Results

5.1 Check how all variables look



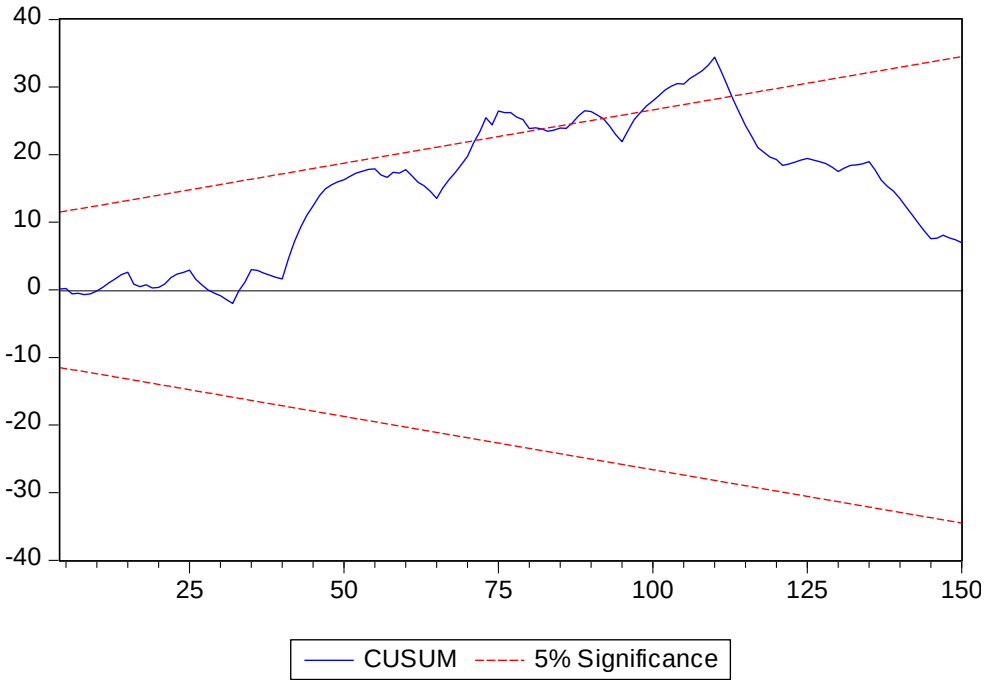
Where:
X1: Debt Ratio
X2: Return on Asset (ROA)
Y: Earnings Quality

5.2 Stability of Earnings Quality- CUSUM Test

Y: Earnings Quality
Least Squares
09/08/17 at 10:56
Sample: 1 150
Observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.261923	0.157195	8.027752	0.0000
X1	0.023055	0.003407	6.766653	0.0000
X2	-0.015151	0.006497	-2.332045	0.0211

R-squared	0.292846	Mean dependent var	2.128200
Adjusted R-squared	0.283225	S.D. dependent var	1.254187
S.E. of regression	1.061827	Akaike info criterion	2.977657
Sum squared resid	165.7391	Schwarz criterion	3.037869
Log likelihood	-220.3242	Hannan-Quinn criter.	3.002119
F-statistic	30.43782	Durbin-Watson stat	0.645303
Prob(F-statistic)	0.000000		



CUSUM test presents that the midst blue line is beyond the upper red line and not within the two red lines, meaning that Earnings Quality is not stable.

5.3 Unit Root Testing-Augmented Dickey Fuller Test

The study will check whether is the dependent variable Earnings Quality got unit root?, so the null hypothesis wills H0: Earnings Quality is not stationary or got unit root, while the alternative H1: Earnings Quality is stationary or not got unit root.

We have 3 models to check:

- Δ Yt=B1+ZYt-1+ai+et
- Δ Yt=B1+B2t+ZYt-1+ai+et
- Δ Yt=ZYt-1+ai+et

A- Intercept

Null Hypothesis: Earnings Quality has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=13)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.103718	0.0000
Test critical values:	1% level	-3.474567	

5% level	-2.880853
10% level	-2.577147

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(Earnings Quality)
: Least Squares
09/10/17 08:47
Sample (adjusted): 2 150
Observations: 149 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Y(-1)	-0.302980	0.059365	-5.103718	0.0000
C	0.637496	0.146912	4.339289	0.0000

R-squared	0.150524	Mean dependent var	-0.009383
Adjusted R-squared	0.144746	S.D. dependent var	0.980528
S.E. of regression	0.906792	Akaike info criterion	2.655525
Sum squared resid	120.8740	Schwarz criterion	2.695847
Log likelihood	-195.8366	Hannan-Quinn criter.	2.671907
F-statistic	26.04794	Durbin-Watson stat	2.088312
Prob(F-statistic)	0.000001		

The results from the first table above shows the probability value 0.0000 which is less than 0.05, that means reject the null hypotheses, H0: Earnings Quality is not stationary or got unit root, and accept the alternative H1: Earnings Quality is stationary or not got unit root. Another approach, if the test statistics is more than critical values can reject null hypothesis that is the standard procedures, but if the test statistics is less than critical values cannot reject null hypothesis. We have to choose the absolute values without negative signs, so from the above results the t_statistics 5.103718 is more than the 3 critical values which are respectively: 3.474567, 2.880853, and 2.577147, meaning that reject the null hypothesis H0: Earnings Quality is not stationary or got unit root, and accept the alternative H1: Earnings Quality is stationary or not got unit root.

The second table shows the coefficient of dependent variable Earnings Quality which should be negative, which is -0.302980, that means we can accept the model, and the model is verifiable otherwise not and the model is not valued.

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B- Trend and intercept

Null Hypothesis: Earnings Quality has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 5 (Automatic - based on SIC, maxlag=13)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.853852	0.0165
Test critical values:	1% level	-4.023042	
	5% level	-3.441330	
	10% level	-3.145211	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(Earnings Quality)
Method: Least Squares
Date: 09/10/17 Time: 09:14
Sample (adjusted): 7 150
Included observations: 144 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Y(-1)	-0.328524	0.085246	-3.853852	0.0002
D(Y(-1))	0.034404	0.087672	0.392414	0.6954
D(Y(-2))	0.174399	0.086278	2.021361	0.0452
D(Y(-3))	0.094811	0.084941	1.116198	0.2663
D(Y(-4))	0.140342	0.084485	1.661144	0.0990
D(Y(-5))	-0.266932	0.082066	-3.252629	0.0014
C	0.838750	0.251871	3.330072	0.0011
@TREND("1")	-0.001849	0.001707	-1.082668	0.2809

R-squared	0.297131	Mean dependent var	0.000660
Adjusted R-squared	0.260954	S.D. dependent var	0.977948
S.E. of regression	0.840720	Akaike info criterion	2.544838
Sum squared resid	96.12628	Schwarz criterion	2.709827
Log likelihood	-175.2283	Hannan-Quinn criter.	2.611880
F-statistic	8.213240	Durbin-Watson stat	2.061194
Prob(F-statistic)	0.000000		

The results from the first table above shows the probability value 0.0002 which is less than 0.05, that means reject the null hypotheses, H0: Earnings Quality is not stationary or got unit root, and accept the alternative H1: Earnings Quality is stationary or not got unit root. Also from the above results the obsolete t_statistics 3.853852 is more than the second 2 critical values which are respectively: 3.441330, 3.145211, meaning that reject the null hypothesis H0: Earnings Quality is not stationary or got unit root, and accept the alternative H1: Earnings Quality is stationary or not got unit root.

The second table shows the coefficient of dependent variable Earnings Quality which should be negative, which is -0.328524, that means we can accept the model, and the model is verifiable otherwise not and the model is not valued.

C- None

Null Hypothesis: Earnings Quality has a unit root
Exogenous: None
Lag Length: 5 (Automatic - based on SIC, maxlag=13)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.412225	0.1466
Test critical values:	1% level	-2.581120	
	5% level	-1.943058	
	10% level	-1.615241	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(Earnings Quality)
Least Squares
09/10/17 at 09:29
Sample (adjusted): 7 150
Observations: 144 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Y(-1)	-0.044713	0.031662	-1.412225	0.1601
D(Y(-1))	-0.130291	0.077433	-1.682625	0.0947
D(Y(-2))	0.024173	0.078177	0.309210	0.7576
D(Y(-3))	-0.047262	0.077898	-0.606714	0.5450
D(Y(-4))	0.002770	0.078005	0.035509	0.9717
D(Y(-5))	-0.391685	0.076974	-5.088533	0.0000

R-squared	0.230222	Mean dependent var	0.000660
Adjusted R-squared	0.202332	S.D. dependent var	0.977948
S.E. of regression	0.873428	Akaike info criterion	2.607991
Sum squared resid	105.2769	Schwarz criterion	2.731734
Log likelihood	-181.7754	Hannan-Quinn criter.	2.658273

Durbin-Watson stat	2.143082

The results from the first table above shows the probability value 0.1466 which is more than 0.05, that means accept the null hypotheses, H0: Earnings Quality is not stationary or got unit root, and reject the alternative H1: Earnings Quality is stationary or not got unit root. Also from the above results the obsolete t_statistics 1.412225 is less than the critical values which are respectively: 2.581120, 1.943058, and 1.615241 meaning that not reject the null hypothesis H0: Earnings Quality is not stationary or got unit root, and reject the alternative H1: Earnings Quality is stationary or not got unit root.

The second table shows the coefficient of dependent variable Earnings Quality which should be negative, which is -0.044713, that means we can accept the model, and the model is verifiable, otherwise not and the model is not valued.

From the last equation we have seen that is Earnings quality is not stationary, we have to convert it into stationary, in order to be applied, so to make dependent variable Earnings Quality stationary we should go to first differencing:

Null Hypothesis: D(Earnings Quality) has a unit root
Exogenous: None
Lag Length: 4 (Automatic - based on SIC, maxlag=13)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.427466	0.0000
Test critical values:	1% level	-2.581120	
	5% level	-1.943058	
	10% level	-1.615241	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EQ,2)
Least Squares
09/10/17 at 09:47
Sample (adjusted): 7 150
Observations: 144 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(Y(-1))	-1.647715	0.195517	-8.427466	0.0000
D(Y(-1),2)	0.493329	0.174403	2.828671	0.0054
D(Y(-2),2)	0.495708	0.146861	3.375344	0.0010
D(Y(-3),2)	0.426934	0.117965	3.619159	0.0004

D(Y(-4),2)	0.409463	0.076209	5.372908	0.0000

R-squared	0.681776	Mean dependent var	0.014271
Adjusted R-squared	0.672619	S.D. dependent var	1.531962
S.E. of regression	0.876546	Akaike info criterion	2.608451
Sum squared resid	106.7984	Schwarz criterion	2.711570
Log likelihood	-182.8085	Hannan-Quinn criter.	2.650353
Durbin-Watson stat	2.160007		

The results from the first table above shows the probability value 0.0000 which is less than 0.05, that means reject the null hypotheses, H0: Earnings Quality is not stationary or got unit root, and accept the alternative H1: Earnings Quality is stationary or not got unit root. Also from the above results the obsolete t_statistics 8.427466 is more than the critical values which are respectively: 2.581120, 1.943058, and 1.615241 meaning that reject the null hypothesis H0: Earnings Quality is not stationary or got unit root, and accept the alternative H1: Earnings Quality is stationary or not got unit root.

The second table shows the coefficient of dependent variable Earnings Quality which should be negative, which is 1.647715, that means we can accept the model, and the model is verifiable, otherwise not and the model is not valued, so Earnings Quality is stationary and can be applied.

5.4 Regression

5.4.1Residual value

Actual	Fitted	Residual	Residual Plot
2.50500	1.90628	0.59872	| . | * . |
2.42900	2.17194	0.25706	| . |* . |
2.37400	2.29298	0.08102	| . * . |
2.79700	1.93227	0.86473	| . | *. |
3.27600	1.91924	1.35676	| . | .* |
1.01200	2.49267	-1.48067	| * . | . |
1.12700	2.70257	-1.57557	| * . | . |
1.17300	2.47380	-1.30080	| *. | . |
0.71800	2.72802	-2.01002	| * . | . |
0.84100	2.92018	-2.07918	| * . | . |
1.98400	2.55185	-0.56785	| . * | . |
2.00300	2.62554	-0.62254	| . * | . |
1.95800	2.60976	-0.65176	| . * | . |
2.03300	2.68528	-0.65228	| . * | . |
2.25700	2.42057	-0.16357	| . *| . |

0.81000	1.62487	-0.81487	|	.* | .	|
0.79300	1.83316	-1.04016	|	* | .	|
0.88300	1.98965	-1.10665	|	* | .	|
0.93900	1.90727	-0.96827	|	* | .	|
1.03700	1.95036	-0.91336	|	.* | .	|
2.42700	2.11371	0.31329	|	. |* .	|
2.64000	2.07836	0.56164	|	. | *.	|
2.59800	2.07303	0.52497	|	. | * .	|
2.29800	2.13237	0.16563	|	. |* .	|
2.31700	2.14979	0.16721	|	. |* .	|
1.14400	1.71121	-0.56721	|	.* | .	|
1.21000	1.90598	-0.69598	|	.* | .	|
1.38900	1.70278	-0.31378	|	. *| .	|
1.31600	2.03436	-0.71836	|	.* | .	|
1.28900	1.99693	-0.70793	|	.* | .	|
1.07200	1.69387	-0.62187	|	.* | .	|
1.02900	1.89757	-0.86857	|	.* | .	|
3.45100	2.02812	1.42288	|	. | .*	|
3.32000	1.84279	1.47721	|	. | .*	|
3.15000	2.35415	0.79585	|	. | *.	|
1.69900	2.30474	-0.60574	|	.* | .	|
1.51600	2.21969	-0.70369	|	.* | .	|
1.62700	2.11530	-0.48830	|	. *| .	|
1.65500	2.05342	-0.39842	|	. *| .	|
1.68300	2.08885	-0.40585	|	. *| .	|
5.18100	3.02786	2.15314	|	. | . *	|
5.23600	3.02060	2.21540	|	. | . *	|
5.04500	2.94406	2.10094	|	. | . *	|
4.93100	2.97159	1.95941	|	. | . *	|
4.82200	2.98762	1.83438	|	. | . *	|
2.86100	1.68065	1.18035	|	. | .*	|
2.63200	1.69331	0.93869	|	. | *.	|
2.23300	1.67341	0.55959	|	. | *.	|
2.12800	1.66846	0.45954	|	. | * .	|
1.87300	1.49563	0.37737	|	. | * .	|
1.81800	1.34557	0.47243	|	. | * .	|
1.88900	1.37032	0.51868	|	. | * .	|
1.66700	1.37714	0.28986	|	. |* .	|
1.70500	1.36191	0.34309	|	. | * .	|
1.58400	1.48342	0.10058	|	. |* .	|
5.39900	6.71495	-1.31595	|	*. | .	|
2.80300	2.64707	0.15593	|	. |* .	|

3.54200	2.88428	0.65772	| . | * . |
2.88900	3.24116	-0.35216	| . * | . |
3.74100	3.60621	0.13479	| . |* . |
0.91700	1.84782	-0.93082	| .* | . |
0.56900	1.43713	-0.86813	| .* | . |
0.82100	1.36557	-0.54457	| . * | . |
0.86400	1.54394	-0.67994	| . * | . |
0.30800	1.32358	-1.01558	| * | . |
3.55200	2.01420	1.53780	| . | . * |
3.21300	1.93863	1.27437	| . | .* |
2.92000	1.79119	1.12881	| . | * |
2.88600	1.46217	1.42383	| . | . * |
2.86600	1.36448	1.50152	| . | . * |
4.31700	2.43545	1.88155	| . | . * |
4.31700	2.43545	1.88155	| . | . * |
4.98400	2.41658	2.56742	| . | . *|
3.44600	3.77500	-0.32900	| . * | . |
5.22200	2.87501	2.34699	| . | . * |
1.29300	1.37534	-0.08234	| . * . |
1.60800	1.41190	0.19610	| . |* . |
1.61600	2.00347	-0.38747	| . * | . |
1.86000	1.97274	-0.11274	| . *| . |
1.14000	2.28698	-1.14698	| * | . |
2.09400	1.86221	0.23179	| . |* . |
1.85300	1.87324	-0.02024	| . * . |
1.73800	1.99044	-0.25244	| . *| . |
2.22500	1.90850	0.31650	| . |* . |
2.26500	1.78450	0.48050	| . | * . |
3.17300	3.13841	0.03459	| . * . |
3.58300	2.63275	0.95025	| . | *. |
3.61300	2.36478	1.24822	| . | .* |
3.31000	2.39871	0.91129	| . | *. |
2.70500	2.66122	0.04378	| . * . |
1.23300	1.60841	-0.37541	| . * | . |
1.11500	1.55923	-0.44423	| . * | . |
0.99500	1.97809	-0.98309	| * | . |
0.82300	2.03781	-1.21481	| *. | . |
0.87700	1.90124	-1.02424	| * | . |
4.12200	2.23658	1.88542	| . | . * |
4.23500	2.35334	1.88166	| . | . * |
3.97500	2.71424	1.26076	| . | .* |
3.65400	2.48960	1.16440	| . | * |

3.37900	2.41295	0.96605	. | *
2.26500	1.27686	0.98814	. | *
2.30500	1.23357	1.07143	. | *
2.11200	1.33618	0.77582	. | *.
1.94900	1.31423	0.63477	. | *.
1.50700	1.35215	0.15485	. |*.
3.19900	2.12369	1.07531	. | *
3.21400	2.42777	0.78623	. | *.
3.22500	2.35757	0.86743	. | *.
3.43800	2.35976	1.07824	. | *
3.69000	2.17164	1.51836	. | .*
0.64000	2.56181	-1.92181	*. | .
0.59100	2.62851	-2.03751	*. | .
0.42900	2.54564	-2.11664	*. | .
0.60000	2.51733	-1.91733	*. | .
0.55000	2.56023	-2.01023	*. | .
0.73600	2.27233	-1.53633	*. | .
0.63100	2.30136	-1.67036	*. | .
1.57900	2.22416	-0.64516	.* | .
1.51600	2.16066	-0.64466	.* | .
1.79400	2.07295	-0.27895	. *| .
1.26600	2.08330	-0.81730	.* | .
2.45500	2.20631	0.24869	. |*.
2.79700	2.42008	0.37692	. | *.
3.08700	2.76602	0.32098	. | *.
3.38500	3.10528	0.27972	. |*.
2.74700	3.00141	-0.25441	. *| .
2.68600	2.91131	-0.22531	. *| .
2.59100	2.89763	-0.30663	. *| .
2.60500	3.15072	-0.54572	.* | .
2.86100	3.69885	-0.83785	.* | .
2.50600	1.85486	0.65114	. | *.
2.51800	1.97859	0.53941	. | *.
2.17500	1.97015	0.20485	. |*.
2.24400	1.95386	0.29014	. |*.
2.33100	1.85227	0.47873	. | *.
0.56800	1.75614	-1.18814	*. | .
0.39000	1.87275	-1.48275	*. | .
0.69300	1.50771	-0.81471	.* | .
0.62600	1.21780	-0.59180	.* | .
0.49900	1.56322	-1.06422	* | .
0.04000	1.21682	-1.17682	* | .

0.07700	1.24605	-1.16905	*	.
0.04700	1.27469	-1.22769	*.	.
0.04400	1.28345	-1.23945	*.	.
0.08800	1.23114	-1.14314	*	.
1.25900	1.15175	0.10725	.	* .
1.64600	1.14387	0.50213	.	* .
1.16200	1.56804	-0.40604	. *	.
1.31600	1.59261	-0.27661	. *	.
1.10700	1.54157	-0.43457	. *	.

The middle line is the fitted (regression/ estimated/ predicted) line, the residual is the difference between the actual and fitted values. In the right of this line are positive residuals, but in the left the negative residuals. By summing up the positive and negative residuals giving zero on average. This residual creates most of the problem in the regression. It should be administrator to become a valued model. This residual should not be serially correlated, and should be normally distributed.

5.4.1.1 Correlation of residual value

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	64.86143	Prob. F(2,145)	0.0000
Obs*R-squared	70.82931	Prob. Chi-Square(2)	0.0000

Test Equation:
Dependent Variable: RESID
Least Squares
09/10/17 at 11:05
Sample: 1 150
Observations: 150
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.011452	0.115106	0.099493	0.9209
X1	-0.000530	0.002497	-0.212336	0.8321
X2	0.007871	0.004804	1.638404	0.1035
RESID(-1)	0.627185	0.082170	7.632754	0.0000
RESID(-2)	0.096030	0.082184	1.168475	0.2445

R-squared	0.472195	Mean dependent var	1.91E-16
Adjusted R-squared	0.457635	S.D. dependent var	1.054677
S.E. of regression	0.776721	Akaike info criterion	2.365294
Sum squared resid	87.47785	Schwarz criterion	2.465649
Log likelihood	-172.3971	Hannan-Quinn criter.	2.406065
F-statistic	32.43072	Durbin-Watson stat	1.919139
Prob(F-statistic)	0.000000		

Because the probability value is 0.0000 which is less than 0.05, meaning we can reject null hypotheses, which is: Residuals are not correlated, means not serially correlated, and accept the alternative hypothesis which is: Residuals are correlated, means the residuals for these model have auto correlation problem, or residuals are serially correlated, which is not desirable.

5.4.1.2 Variance of the residual

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	6.366440	Prob. F(2,147)	0.0022
Obs*R-squared	11.95704	Prob. Chi-Square(2)	0.0025
Scaled explained SS	8.515529	Prob. Chi-Square(2)	0.0142

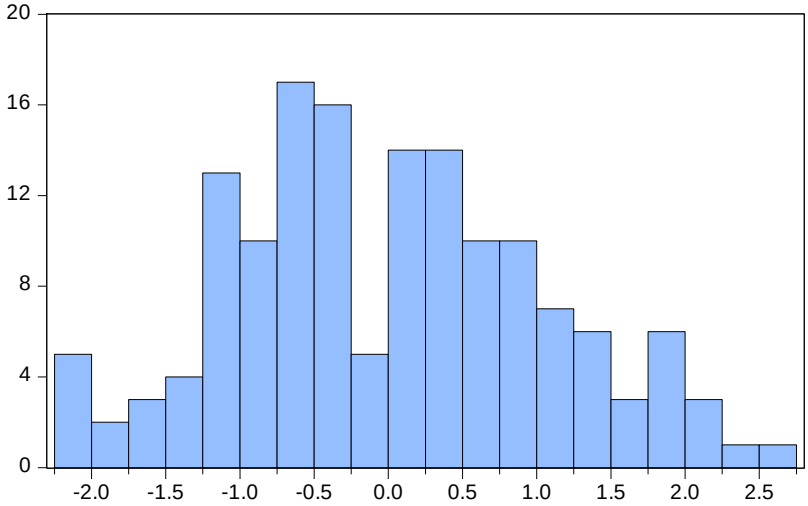
Test Equation:
Dependent Variable: RESID^2
Least Squares
09/10/17 at 11:17
Sample: 1 150
Observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.741420	0.193041	3.840729	0.0002
X1	0.009898	0.004184	2.365772	0.0193
X2	-0.016736	0.007979	-2.097651	0.0376

R-squared	0.079714	Mean dependent var	1.104927
Adjusted R-squared	0.067193	S.D. dependent var	1.350110
S.E. of regression	1.303962	Akaike info criterion	3.388490
Sum squared resid	249.9468	Schwarz criterion	3.448702
Log likelihood	-251.1367	Hannan-Quinn criter.	3.412952
F-statistic	6.366440	Durbin-Watson stat	0.920815
Prob(F-statistic)	0.002230		

Because the probability value is 0.0025 which is less than 0.05, that means reject the null hypothesis, which is: Variance of the residual is homoscedastic, and accepts the alternative hypothesis which is: Variance of the residual is hetroskedastic, but hetroskedasticity is not desirable.

5.4.1.3 Residual distribution- Jarque Bera statistics



Because the probability value is 0.264596 which is more than 0.05, that means not reject the null hypotheses, which are: Residual follows normal distribution, and reject the alternative hypotheses, which is: Residual is not normally distributed, which is desirable, and this is a good sign for this model.

5.4.2 Hypotheses Testing

Dependent Variable: Earnings Quality
Least Squares
09/10/17 at 09:59
Sample: 1 150
Observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.261923	0.157195	8.027752	0.0000
X1	0.023055	0.003407	6.766653	0.0000
X2	-0.015151	0.006497	-2.332045	0.0211

R-squared	0.292846	Mean dependent var	2.128200
Adjusted R-squared	0.283225	S.D. dependent var	1.254187
S.E. of regression	1.061827	Akaike info criterion	2.977657
Sum squared resid	165.7391	Schwarz criterion	3.037869
Log likelihood	-220.3242	Hannan-Quinn criter.	3.002119

F-statistic	30.43782	Durbin-Watson stat	0.645303
Prob(F-statistic)	0.000000		

While R-squared is0.343636 less than 0.60 meaning that the data of this model is not fitted strongly, it means that 0.292846 percent variation in the Earnings Quality can be explained jointly by Debt Ratio and Return on Asset (ROA), the rest percent variation in Earnings Quality can be expressed by residuals or other variables other than debt ratio and return on asset (ROA).

H_{11}: There is no significant influence of debt ratio on the listed Jordanian Industrial companies' earnings quality. While the probability value of the first independent variable X1 (debt ratio) is 0.0000 less than 0.05 means that the debt ratio individually can significantly influence the dependent variable Earnings quality. So can reject the null hypotheses, and accept the alternative hypotheses there is a significant influence of debt ratio on the listed Jordanian Industrial companies' Earnings Quality

H_{21}: There is no significant influence of return on asset (ROA) on the listed Jordanian Industrial companies' Earnings Quality. While the probability value of the second independent variable X2 (Return on Asset (ROA)) is 0.0211 less than 0.05 means that the Return on Asset (ROA) individually can significantly influence the Earnings quality. So can reject the null hypotheses, and accept the alternative hypotheses there is a significant influence of return on asset (ROA) on the listed Jordanian Industrial companies' Earnings Quality.

H_{01}: There is no significant influence of leverage and profitability on listed Jordanian Industrial companies' Earnings Quality. While the probability (F-statistics) is 0.000000 less than 0.05, meaning that debt ratio and return on asset (ROA) jointly can significantly influence Earnings quality, means that leverage and profitability are jointly significant variables to explain the Earnings Quality. So can reject the null hypotheses, and accept the alternative hypotheses there is a significant influence of leverage and profitability on the listed Jordanian Industrial companies' Earnings Quality

5. Conclusion

Capital markets depend on reasonable financial accounting information. High-quality financial reporting supports investors to assess firm value and performance, and to make good investment decisions. (Gaio & Raposo, 2011)

It is important to measure the quality of earnings presented by firms (Alipour, et al., 2014), and to determine the influence of some factors on it.

Based on the above the current study try to identify the influence of leverage through debt ratio and profitability through return on asset (ROA) on the listed Jordanian Islamic Banks Earnings Quality during the period from 2011 to 2015, and the results indicate that there is a significant influence of debt ratio separately on the listed Jordanian Industrial companies' Earnings Quality, there is a significant influence of return on asset (ROA) separately on the

listed Jordanian Industrial companies' Earnings Quality. Moreover, there is a significant influence of leverage and profitability together on the listed Jordanian Industrial companies' Earnings Quality, which agree with (Ramadan, 2015) and (Hassan $ Farouk, 2014)

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