

# The Impact of Profit Warnings on Stock Prices in Kuwaiti Firms

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Received: March 10, 2022

Accepted: April 20, 2022

Online Published: May 12, 2022

doi:10.5539/ibr.v15n6p28

URL: <https://doi.org/10.5539/ibr.v15n6p28>

## Abstract

This research explores the link concerning informativeness regarding stock price and warnings pertaining to profit in organisations operating in Kuwait as an emerging country. An extensive set of panel data were utilised by the researchers, where such data linked to profit warnings percentages and stock price synchronicity on the Stock Exchange of Kuwait for the years 2010 through to 2020. Multi-regression was chosen to be applied as a parametric test, which provided the ability to garner more robust findings that are seen to be aligned with our belief that, as opposed to common market data. The findings present a wealth of insight concerning the effects of earnings declarations when it comes to stock prices and data content. The approach and assessment of profit warnings presented in this work might also provide further support for researchers seeking to carry out other stock price and profit warnings researches in emerging economics, particularly when considering that support in this regard is seen to be lacking in emerging regions. It is the view of the researchers that the present work is one of very few centres on developing regions, especially those in the GCC (Gulf Cooperation Council). Furthermore, adding to regression corporate governance factors as moderating variables has also been recognised as being far more valuable when compared with other regressions.

**Keywords:** organisations in Kuwait, profit warnings, stock price, the gulf cooperation council, informativeness, synchronicity

## 1. Introduction

Historically, financial scandals affected firms profit, therefore, profit warnings were used in order to warning firms with good and bad news. Therefore, the profit warnings considered as indication as being associated with the declarations made by public organisations before formal financial statements are released and made available, primarily with the objective to provide shareholders with some degree of warning that there will be a key difference in their earnings between what is expected and what is actual. Notably, a profit warning is not necessarily negative, but can also be positive. The present study seeks to examine whether or not there is a correlation between profit warnings and the behaviour of the market. This concern has, in the past, been the subject of notable discussion from pioneers across the globe, but not in the context of the GCC.

One of the most fundamental issues for those organisations aiming to enhance their overall capital levels is that of investor attraction, as this facilitates their ability to dominate the market through extended investments. Subsequently, this has justified organisations placing a greater degree of emphasis on prices of stock, with higher prices seen to be more likely to results in a greater degree of return for investors (El Ghordaf and El Khamlichi, 2022; Zolotoy, 2011; Penman, 2009). A number of other works carried out in this regard show that stock price variation is a lot more apparent when coinciding with news declarations (e.g., Almasarwah, 2020; Yin *et al.*, 2018). Moreover, it was established in the work of Lui, Markov & Tamayo (2013) that there is a disproportionate link between individual stocks' organised risk and the bad and good news detailed in any predictor reports. In a similar vein, the study carried out by Zolotoy (2011) discusses the view that increases (decreases) in equity value are recognised in line with good (bad) news, especially when there is a downwards (upwards) debt provision. For instance, positive (negative) news declarations have been seen to lead to declines (increases) when it comes to equity investments' risk.

In specific consideration to stock price response to profit warnings, empirical evidence is somewhat limited to developed regions, including, but not limited to, China, the USA and the UK. For instance, in the work of Lui *et al.* (2013), it was established that profit warnings influence stock price increases, especially in relation to the

publication of negative news (such as in the case of China reporting a notable -3% price decline, across the duration of about a -1 to 1 range, and a notable 8% stock prices rise across the duration amounting to a [+2 to +60] in relation to poor profit warnings. As such, this work seeks to add to the previously carried out research in a number of different ways: primarily, through examining under-developed economies where most previous works have directed their efforts to developed regions; as a result, this means any gaps in knowledge that could potentially be identified in the future will be filled owing to the fact are findings are seen to be line with previous research (i.e. Yin *et al.*, 2018); secondly, non-developed economies present empirical findings with comparable standards as developed regions, which facilitates comparison between the findings gathered in both developed and developing regions; and lastly, drawing a contrast between developed regions' and developing regions' empirical results enhances the potential to investigate a number of different elements that could possibly impact the findings gathered in emerging regions when it comes to affecting profit warnings on stock prices, as in the case of cultural considerations, legal systems, and economic and political circumstances.

To sum up, this work seeks to determine the link between stock prices and profit warnings in the context of organisations based in Kuwait for the period spanning from 2010 through to 2020, with a total of 640 organisation-years. Nonetheless, in mind of investigating the link between stock price and profit warnings, a quantitative methodology has been implemented. The findings highlight that, in the case of those businesses operating in Kuwait, profit warnings have a notable negative link with synchronicity of stock price; this may be taken to infer that profit warnings of a higher portion are more likely to result in organisation-specific data when it comes to the synchronicity of stock prices. These findings are recognised as being in support with past works, as showcased in the studies of Almasarwah *et al.* (2020), Kim & Yi (2015) in consideration to the equity ratio, firm size and financial leverage of organisations, which highlight a clear negative impact on the synchronicity of stock price. In contrast, however, leverage and return on equity has a clear, positive link with the synchronicity of stock price.

This paper structure as follow: Section 2 presents the existing literature, and develops study hypothesis. Section 3, discusses study methodology. Section 4 provides the analytical procedures. Section 5, presents and discusses study results. Finally, Section 6 summaries study conclusion and findings.

## **2. Literature Review and Hypotheses Development**

### *2.1 Profit Warnings in the Existing Literature*

The profit warning is a released news (i.e. good or bad news) before public release them. Without having these news, the influence of the bad news could be massive at the date of announcing them. Therefore, releasing these news before the date of announcement will reduce firms bad expectations and prepare for plans and strategies to mitigate the expect risk. On the other hand, these warnings are naturally completed around the end of financial period (Almasarwah, et al. 2020; Elayan and Pukthuanthong, 2009). Thus, not to caution the real financial condition of the firm drops its appraisal and liquidity, which rises capital cost. To evade a huge drop in the stock market, the profit warning should follow the following criteria: timing of releasing the information, clarity of the information and equal access to information.

Several reasons were documented in the prior literature; to prevent firms from the large decrease in stock price, to avoid owner litigation, to keep a good reputation, features of regulation in the market (Edgar, Brennan and Power, 2021).

### *2.2 Profit Warnings and Stock Prices*

In mind of providing a more comprehensive insight into the way in which profit warning may be defined, there is first a need to take into account various definitions as presented in other works. In the case of Elayan & Pukthuanthong (2009), for example, profit warning has been defined as a notice released by organisations, with the statement that earnings are lower than expected. In the view of Skinner (1994), profit warning may be viewed as a critical instrument provided by organisational management in mind of decreasing the costs associated with litigation and reputation. It may be that profit warning management is needed at any point in the financial year, especially prior to the publication of profit reports, with such management required across a number of different areas of accounting, such as sales, Profit Before Interest and Tax (PBIT) and Earnings Per Share (EPS) (Clarke, de Silva and Thorley, 2022; Elayan *et al.*, 2009). In the study by Bulkley & Herrerias (2004), defined profit warning as surprising firm announcement, where the period of supervisory approaching incomes could potentially result in present prospectation decline. Moreover, it was further emphasised in the study that profit warnings may be recognised as clean data, rather than the information presented by an organisation in relation to direct material penalty.

One of the clear rationales pertaining to the profit warnings issue is that the economy is affected by various circumstances, whether cultural, economic or political. Profit warnings are seen to be amongst the key factors linked with surprises in earnings, with the exception of any outcomes stemming from the unexpected issue linked with similar drift. Moreover, there is a recognised link between profit warnings and earnings declarations, with the inclusion of disclosure, where a key modification between profit warnings (PWs) and earnings announcements (EAs) is the purpose (where the former is unpredicted and the latter is specified) (Kiminda, 2014).

Previous research has classified profit warning into two different areas, namely quantitative warnings, which are seen to encompass obvious figures and expect estimation profit numbers, and qualitative warnings, which are recognised as non-numerical data that highlights the expectation that, in the near future, profit warnings will be witnessed (Skinner, 1994). Differing environments might be good compared with others when the financial data published. As an example, on December 4, 2003, a profit warning was presented by 3Com Corp on the best of existing market. The following day, a decline in its stock price around 34 %, with an irregular reoccurrence of –33%. Moreover, in the first quarter of 2001, profit warnings were issued by PW, which results in the decline of stock price return to 21%, with an unusual return of –5% (Cox *et al.*, 2017). Moreover, in consideration to previous studies, DeStefano (2004) states that the way in which bad news was perceived has changed over the business cycle; in other words, from one unit to the next, there are differences in profit warnings and the impacts they have on business transactions.

In the work of Jackson & Madura (2003), it was established that the period of time directly before any declaration of earnings does not provide any insight into profit warnings. In contrast, it was established that, five days before a profit warning, share prices seem to witness fluctuation, thereby suggesting stock price as the first of any financial statement inclusion that is impacted by any declaration of profit warnings. A number of different elements were identified in the previous research as being able to possibly affect profit warnings. The work of Aubert & Louhichi (2015), for example, which carried out empirical analyses, suggest specify that firm lawful data setting and shareholders directory in each economy create varying effects on the announcements of profit warnings; their work provides justification for this, as showcased through consideration to four different regions (Europe Countries), utilising around 1,300 profit warnings issued for the years spanning 2002 to 2012. The legal data environment of the organisation, coupled with the investors' index, was seen to provide further support when it comes to developing an analytical forecasting framework to provide profit warnings predictions.

In the work of Chen & Mohan (1994), there was some discussion as to whether management somewhat stimulate the period of publishing bad news in an effort to alleviate the response across the market, especially when profit warnings are issued by management. In actuality, management has a greater wealth of data pertaining to expected profit in organisations than investors; nonetheless, management decline to make any declaration concerning whether there are profit warnings, where it is seeming small in firm performance, especially when there are a number of weeks before making official earnings declarations, whereas profit warnings are expected to differ between organisations, as well as across different points of time (Cox, et al, 2017).

Making declarations concerning profit warnings may result in bad impacts for circumstances in the banking arena, with the work of Jackson & Madura (2004) highlighting that banks are known to witness negative assessment results in response to the publication of profit warnings, and further state that share price in banks are negatively impacted both prior to and following the publication of profit warnings. As a result, this meant investors depending on more obvious data sources relating to individual banks as opposed to depending on the warning of one bank as a precursor for other banking entities.

In the majority of instances, management show a preference for the issuance of profit warnings when circumstances facing organisations are more testing. In the work of Kearns & Whitley (2002), it was established that decreases in firm profit margins seem to precede profit warnings, a phenomenon seen to be more common in the case of those organisations with negative profits when contrasted with those with positive profit. A number of previous research centred on profit warnings suggest that the majority of negative earnings are seen to stem from the declaration of unexpected bad news, with this recognised as potentially circumvented through management issuance of motivations (e.g., Spohr, 2014). As such, it is emphasised in the work of Xu (2008) that profit warnings announcement is probably to be linked with stock prices reduction.

UK data were used by Clare (2001) to establish whether it is more likely that investors will overreact to bad warnings than good warnings. In this same vein, in support of the hypothesis of overreaction, it is noted in the work of Tucker (2004) that investors are seen to respond more negatively to those organisations that provide warning as to bad warnings news than those do not have profit warnings. Furthermore, in the study of Jackson &

Madura (2003), share price performance is examined the relationship between profit warnings news in the US firms. Whereas, -22% of stock price reduced during 11 days, which came to conclusion 5 days after announcement. Nonetheless, the findings do not present any indication of reversal following this period, and therefore draw the conclusion that the reaction of the market to bad warnings is not justifiable.

As can be seen, the reference to developed countries such as US, German and UK research applies the standard result, with a lack of consideration to the link between the variation of stock Betas and shares-released data, which are clearly detailed in the literature (Lui *et al.*, 2009; Cam & Ramiah, 2014).

The content of the data is critically associated with the efficient market hypothesis. In this regard, especially in relation to the semi-strong form (where there is the expectation that share prices will reflect all available data in the accounting context, with the inclusion of the present value of future cash flows), accounting figures comprising data content in the instance that security prices are seen to be impacted by data that has been released (Wolk *et al.*, 2001). Moreover, in the study of Ball & Brown (1968, p. 161), the statement was made that 'an observed revision of stock prices associated with the release of the income report would thus provide evidence that the information reflected in income numbers is useful'.

Accordingly, in the case of reporting in the financial arena, the objective is to deliver data in order to assist creditors, investors and other entities to evaluate the overall stewardship of the management of the organisation, as well as any degree of uncertainty and the timing of potential cash flows to the organisation. The financial data provided is recognised as encompassing information content if it is seen to be valuable when it comes to making economic choices and is noted to affect share prices of organisations. Accordingly, in contrast with prior works, the present study will apply the accounting data required so as to examine the link between performance methods with share returns and share price, as detailed in financial lists, as opposed to applying proxies. It is noteworthy to highlight that that comprehending the data content of accounting data can be quite problematic when not taking into account the overall relevance and reliability of such accounting information. Financial data is recognised as relevant and valuable in the case that it is seen to impact users' decision-making, which may be attained through assisting them in assessing the past, present and future, which is seen to be the case if there is confirmatory or predictive value. Faithful representation and relevance are seen to be the most fundamental attributions of valuable financial data. The faithful representation should be seen to be complete, neutral and free from error.

The three key approaches seen to be widely used throughout the past thirty years when it comes to analysing the impact of accounting data on financial markets are information content, value relevance and valuation relevance, with Lo & Thomas (2000) emphasising that information content has been consistent, whereas the other two have shown a decrease in use with regards return instability and the non-linearity of assessment frameworks implemented (i.e. earnings expectation model and earnings composition model).

When examining the past, three key methods were utilised when it came to examining the effects of accounting disclosures in mind of security goals: primarily, information content research (Beaver, 1968); secondarily, in line with Ball & Brown (1968), valuation relevance researches; and third, in line with the connotation examining between stock prices and accounting processes, value relevance works. In the view of Beaver (1968), a disclosure or announcement offers data content in the case that the price fluctuates to a greater degree than the amount due to the times (i.e. expected return) upon the release of such an announcement. In this view, the scholar draws a comparison of  $U^2$  (the error term) value throughout the announcement period owing to the function value in the non-announcement period, and subsequently makes the statement that there is a greater variance in stock return during the week of earnings announcement.

In regards works on value-added relevance, and in line with the hypothesis of market efficiently, the work of Ball & Brown (1968) adopts the view that there is efficiency and a lack of bias in that, should data be valuable in terms of establishing the capitalisation prices, whereas later will be amended by the marketplace in consideration to the data published, with abnormal gain then not possible. Owing to the fact that the efficient market hypothesis does not function in the real world, and a number of other less capable approaches might do so, this work's findings are not supported.

The valuation relevance method, as presented by Ball & Brown (1968) centres on one or more particular accounting summary approaches. In the case of the work by Ball & Brown (1968), the earnings, and the way in which such summary measures linked to changes in price. The summary measures are recognised as being valuation-relevant should this measure sign be positively linked with stock price changes. Accordingly, the degree of the grade coefficient of a linear regression of stock returns on net profit was used as a metric about the degree to which earnings are more or less relevant when it comes to providing a rationale or justification for returns (Collins & Kothari, 1989).

The value-relevance method considers the link between accounting summary measures, such as book value and earnings, for example, and market value. From a more official standpoint, this method necessitates the summary measure to be established by researchers, in addition to the valuation approach associating this measure with prices. In line with this view, an overview measure, known as performance measure, is recognised as being value relevant in the case it is seen to significantly link to market values (Holthausen & Watts, 2000).

Accordingly, this work is carried out in mind of providing answers to a number of different questions: Is stock price informativeness witnessed as a result of profit warning during the announcement period in the case of organisations operating in Kuwait? Can a link be identified between stock price informativeness and profit warning types in the case of organisations operating in Kuwait? Can the size of the organisation be linked to profit warning impact on stock prices in organisations operating in Kuwait? In order to satisfy the key aim of this study, this research examined the link between stock price informativeness and profit warnings, and, as such, carried out testing to establish whether any of the measures analysed are positioned so as to provide an explanation of stock price informativeness variation.

**3. Methodology**

Data from non-financial organisations operating in Kuwait in the industrial and services sectors has been used in this research, with the data that which was published on the Kuwait stock exchange in the years spanning 2010–2020. As of the present time, there is no widely accepted definition for the sample method applied in the literature, especially in the case of emerging regions. In line with previous research, organisations operating in the financial sector, insurance and banking were not included, primarily because such sectors are known to have specific rules and financial accounting standards, where the incorporation of such organisations in the same could skew the findings. Quantitative and qualitative approaches were applied in order to investigate the link between stock price informativeness and profit warnings in prior works. This particular research applied a quantitative approach in mind of measuring profit warnings (Almasarwah, 2020; Skinner, 1994) owing to the fact that data available in the stock market of Kuwait was seen to align with quantitative requirements.

This current study measures its variables as follow:

Based on the prior literature, this study adopted Almasarwah, et al. (2020) method to measure profit warnings proxy by using the percentage of decrease the profit 25% in current year compared to previous year.

Stock price informativeness measures in this study based on several prior studies (i.e. Almasarwah, et al. 2020; Boubaker, Mansali *et al.*, 2014) as follow;

$$RT_{i,w} = \alpha + \beta_1MKT_{W1} + \beta_2MKT_{W-1} + \beta_3INDT_{i,w1} + \beta_4INDT_{i,w-1} + \varepsilon_{i,w} \dots \dots (1)$$

where:

$RT_{i,w}$  is recognised as being the weekly return for organisation  $i$  in Week 1,  $MKT_W$  is recognised as being the value-weighted market return for Week 1,  $MKT_{W-1}$  is seen to be the value-weighted market returns for Week -1,  $INDT_{i,w}$  is seen to be the industry value-weighted return with the exclusion of organisation  $i$ 's Weekly return for  $w1$ , and  $INDT_{i,w-1}$  is recognised as the industry value-weighted return with the exclusion of organisation  $i$ 's weekly return for Week -1.

$$SYN_{i,t} = \log \left( \frac{R_{i,t}^2}{1-R_{i,t}^2} \right) \dots \dots \dots (2)$$

where:

$R_{i,t}^2$  is recognised as the determination coefficient from the approximation of Eq (1) for organisation  $i$  in Year  $t$ . An unrestrained constant variable from a variable initially bounded by zero and one is created by the log transformation of  $R_{i,t}^2$ , thereby creating a dependent variable with distribution that is more normalised (Piotroski & Roulstone, 2004).

**4. Results**

*4.1 Descriptive Statistics and Univariate Analysis*

The univariate analysis findings and the descriptive statistics for the present work variables are detailed in this section, which determine the link between stock price and profit warnings in the case of organisations operating in Kuwait. Moreover, for the control variables, the authors detail descriptive measures. The table below provides an summary of the descriptive statistics for the empirical framework's variables. The stock price synchronicity mean value is (-1.09), which is recognised as being significantly higher than for Australia, the UK and the US,

which therefore highlights that greater data has been incorporated into stock price in Canadian, US and UK markets than in Kuwait. This finding is seen to support the findings garnered by Morck, also Yeung *et al.* (2000) stated that the stock price in developed economies have less effect compared to developing markets.

Table 1. Descriptive Statistics

Variables	Med	Min	Max	Average	St. Deviation
SYN	-0.99	-1.85	0.58	-1.09	0.87
PWR	0.20	-28.99	94.09	-1.52	97.04
LEV	0.68	-8.85	50.23	2.41	85.12
ROA	0.36	-19.66	58.25	1.58	41.28
ROE	0.12	-356.19	87.06	-51.58	17.59
DTR	78.05	0.11	22.03	34.28	34.09
ER	48.04	-22.93	45.30	71.51	25.57
FSZE	13.05	0.44	22.38	19.01	27.20

*SYN is Stock Price Synchronicity, PWR is Profit Warnings Percentage, LEV is Leverage ratio, ROA is Return on Assets, ROE is Return on Equity, DTR is Debt Ratio, ER is Equity Ratio, and FSZE is Firm Size.*

The Pearson correlations between those variables incorporated within our regressions can be seen detailed in Table 2, with a number of different key relations provided; primarily, a negative correlation can be seen between profit warnings and stock price synchronicity, with this correlation giving a preliminary signal that investors are inspired by profit warnings to gather and process organisation-specific data, thus resulting in stock price that is more insightful. Accordingly, a negative correlation with stock price synchronicity is seen to be displayed by LEV, ROA, DTR, ER, thereby implying that organisations with a greater abundance of growth opportunities, higher leverage and higher profitability are more likely to have stock prices that are more informative.

Kim *et al.* (2008) increasing opportunity in the economy growth is presented as being linked with high organisation-specific return variation as a result of the view that high intrinsic risk factors are identified in those organisations with high-growth opportunities. A negative relationship between stock price and firm performance in the firms was seen to be expected in the work of Beuselinck, Joos *et al.* (2010), thereby implying that organisations with high financial influence encompass advanced inherent risk factors, which could make investors feel obliged to gather organisation-specific data. A positive correlation is seen between ROE and synchronicity. Overall, this work adopts the view that, in the case of stock price synchronicity and our control variables, low correlation coefficients can be seen, which therefore alleviates the worry that regression results could be impacted by multicollinearity.

Table 2. Pearson Correlation for Firms in the Model Sample

	SYN	PWR	LEV	ROA	ROE	DTR	ER	FSZE
SYN	1.000							
PWR	-0.050	1.000						
LEV	-0.102	-0.231	1.000					
ROA	-0.250	-0.058	-0.253	1.000				
ROE	0.201	-0.0088	-0.889***	0.025	1.000			
DTR	-0.333**	-0.258	0.158**	-0.310**	-0.028	1.000		
ER	-0.287**	-0.069	-0.288	0.162	0.095	-0.319**	1.000	
FSZE	-0.195**	-0.015	0.312	0.241	0.011	0.119	0.285**	1.000

*SYN is Stock Price Synchronicity, PWR is Profit Warnings Percentage, LEV is Leverage ratio, ROA is Return on Assets, ROE is Return on Equity, DTR is Debt Ratio, ER is Equity Ratio, and FSZE is Firm Size.*

Notes: indicate significant at \*\*\* 0.001, \*\* 0.05, \* 0.10

Here, the findings pertaining to variances inflation factor (VIF) and tolerance results are provided and considered. A number of other works have adopted the view that, should the VIF test be lower than 10 and tolerance test exceed 0.2, no multi-collinearity can be seen (as in the works of Hair, Black, Babin & Anderson, 2010; Graham, 2003). With this noted, Table 3 details equity ratio (ER) and return on assets (ROA) variables as having VIF values exceeding 10, with tolerance values shown to be lower than 0.2; this suggests that, in this work, collinearity is a problem.

Table 3. VIF and Tolerance Results for Model Sample

Variable	VIF	Tolerance
ER	12.650	0.750
ROA	11.715	0.058
LEV	2.815	0.785
DTR	1.850	0.778
FSZE	1.120	0.856
ROE	1.080	0.922

PWR 1.010 0.975

Heteroscedasticity suggests that random errors variances in OLS are lacking consistency (Kaufman, 2013). As a result, it is probably that the issue of heteroscedasticity will occur when residuals' magnitude appears to be linked with independent variable value. An appropriate approach to overcoming this issue is the application of non-parametric tests, such as in the case of GLS, fixed effect regression, and robust regression (Kaufman, 2013; Hair *et al.*, 2010).

In an effort to establish whether this study's dataset has been affected by heteroscedasticity, the Breusch-Pagan/Cook-Weisberg test was used applied. The table below details the model sample as having been impacted by heteroscedasticity, owing to the fact that the chi2 value is (22.46), significant at the (0.000) level, therefore suggesting that the null hypothesis, 'all variances of accidental errors in OLS regression for our dataset is stable and can be rejected, while the alternative hypothesis, 'there is inconstant in variances of random errors in all model', can be accepted.

Table 4. Heteroskedasticity Results

Chi2(1)	22.46
Prob > chi2	0.000

In line with the findings detailed in Table 3 and Table 4, a real issue in regards existing heteroscedasticity and multi-collinearity can be seen to exist, with this study having applied robust regression as opposed to OLS regression.

#### 4.2 Robust Regression

The financial leverage of organisations (*DTR*) details negatively related to stock price with at level 5%. It is stated by Hutton, Marcus *et al.* (2009) that the financial leverage of organisations is predicted as impacting stock price on firm stock return, and also owing to the fact it affects the risk-bearing division between debtors and equity shareholders. Furthermore, the work of Beuselinck & Joos *et al.* (2010) highlights a positive link between the financial leverage ratio and the return variation of organisations, thereby implying that organisations with high financial leverage comprise high intrinsic risk factors with the ability to possibly force investors to gather organisation-specific data. As such, these findings provide further support for the above viewpoint. The negative effect of (*DTR*) on stock price synchronicity (*SYN*) is seen to support the results garnered in the prior studies (i.e. Kim & Yi, 2015; Gul & Srinidhi *et al.* 2011), all of which detail a adverse effect of the leverage ratio of organisations on the stock price of organisations. Such findings provide further corroboration for the standpoint that, in those organisations with high leverage, information is seen to be more valuable owing to the fact that investors seek to gather, process and trade in line with such data, thereby resulting in greater organisation-specific return variation for high-leveraged organisations.

When measuring the growth opportunities of organisations, a positive effect is seen to be recorded between leverage ratio and stock price synchronicity. In the work of Hutton, Marcus *et al.* (2009), leverage ratio positions organisations along a growth-versus-value spectrum, which could present a systematic link to return variation for organisations. In line with the results gathered by An & Zhang (2013) and Yu, Li *et al.* (2013), there is a significantly positive predicted coefficient (*LEV*). This finding implies that those organisations seen to have high-growth opportunities are likely to showcase a more synchronous stock price.

It is expected that the ratio of net income to total equity (*ROE*), which measures the profitability and performance of organisations, will impact stock price synchronicity. The study of Ben-Nasr & Cosset (2014) and Gul *et al.* (2011) documented a positive relation between stock price and *ROAs*, thereby suggesting that those organisations that are more profitable are more likely to demonstrate a lesser degree of informative stock price.

A significant negative effect is witnessed between *PWR* on stock price synchronicity. It may be deduced that, in the case of those organisations with greater profit warnings, more organisation-specific data is incorporated into stock price. This finding is seen to support our expectation that organisation investors will be encouraged by higher profit warnings to gather and process a greater wealth of organisation-specific data as opposed to more common market data. Prior works provide further support for this viewpoint, with the study of Ferreira & Laux (2007), for example, highlighting that accounting data is a pivotal element of market data flow. Furthermore, investors are also cited in prior literature (i.e. Seow *et al.*, 1995; Liu, Nissim *et al.*, 2002) to depend on earnings numbers when making critical decisions, with this factor more prominent than any other performance measure. Moreover, it is stated in the work of Francis, LaFond *et al.* (2004) that earnings figures are a fundamental source of organisation-specific data, with Cox, Dayanandan *et al.* (2017) highlighting a link between profit warnings and abnormal return throughout the period of the announcement day, which may be taken to suggest that such organisation-specific data is used by investors when making investment decisions.

Table 5. Regression for Model Sample

	Panel A		Panel B	
	Coef.	t.statistic	Coef.	t.statistic
PWR	-0.010	-7.55***	-0.022	-9.05**
PWRBS	-	-	-0.080	-5.66***
PWRBI	-	-	0.745	4.02***
PWRBO	-	-	0.586	4.15***
PWRAS	-	-	0.158	2.03**
PWRAM	-	-	-0.186	-5.77***
PWRAEX	-	-	0.285	2.05**
LEV	0.010	3.05***	0.080	2.18**
ROA	-0.011	-0.24	-0.008	-1.07
ROE	0.001	7.32***	0.009	4.11***
DTR	-0.006	-2.38**	-0.025	-3.25***
ER	-0.023	-5.09***	-0.033	-5.42***
FSZE	-0.012	-2.68**	-0.045	-3.08***
T-statistics		55.25***		61.66***
R <sup>2</sup>		34.12%		37.04%

#### 4.3 Regression Under Corporate Governance Mechanism

The scholars advanced the study by examining and testing the effects of elements of corporate governance on the link between income warnings and stock price. Prior studies have shown that solid corporate governance characteristics are positively linked to the declaration of good earnings-related news in the foreseeable future. Accordingly, the ways in which this could possibly result in the controlled level financial disclosure performs being affected by Board of Directors and audit committee characteristics has been examined in the study of Karamanou & Vafeas (2015), with the empirical findings detailing that those organisations with a better Board and audit committee characteristics found to be more likely associated with sound updates; subsequently resulting in greater opportunities to engage and attract in a larger number of investors.

In line with the theoretical notion of agency costs, as presented in the study of Jensen & Meckling (1976), Jensen (2005) examined how organisational government quality and its associated choices might be linked with profit warning, especially in the case of overestimation. Accordingly, and in line with a sample of organisations operating in Canada during 2000 to 2004, findings were presented that provide partial support for this statement. As an example, characteristics associated with Board of Directors, including Board insiders and outsiders, Board size, and Board independence, for example, are seen to be better positioned to impact the choice to publish profit warnings when there is an overestimation in the organisation. On the other hand, a number of other governance factors, including ownership structure, for example, are seen to be negatively linked with any profit warning declaration.

As such, new independent variables were identified through the multiplication of an independent variable (PWR) with various characteristics pertaining to Board of Directors (such as Board outsiders and insiders, and Board size), and audit committee characteristics (including audit committee meeting, audit committee size, and audit committee expertise). A total of six additional variables were identified, including profit warnings and board outsider (PWRBO), profit warnings and board insider (PWRBI), profit warnings and audit committee meeting (PWRAM), profit warnings and board size (PWRBS), profit warnings and audit committee size (PWRAS), and profit warnings and audit committee expertise (PWRAEX).

Nonetheless, VIF and Heteroskedasticity issues are still present in OLS regressions, even despite the incorporation of newly identified independent variables. Accordingly, robust regression was applied in an effort to circumvent these issues, with our findings emphasising some degree of improvement when it comes to the link between stock price informativeness and key profit warnings, with Table 5, panel A detailing (-7.55) at the 1% level and, with the addition of corporate governance characteristics, Table 5, panel B showing (-9.05). Such findings are seen to be aligned with previous works (Karamanou & Vafeas, 2015; Ferreira & Laux, 2007).

In this instance, the estimations for OLS are consistent and without bias; however, they lack efficiency. Furthermore, OLS is recognised as being prone to underestimation when it comes to the parameter standard errors; subsequently, this impacts the link between profit warnings as a result of the adoption of corporate governance factors as modest variables. As a result, robust regression is presented as being able to create a more preferable unbiased predictor of  $\beta$  for satiations with Heteroskedasticity variance, as well as to help confirm the link between variables will be as useful as possible (Carroll, 2017). As such, this work has implemented the use of a non-parametric test (robust regression) in the form of a multivariate test approach so as to investigate the effect of corporate governance characteristics on the link between profit warnings and stock price in the case of



organisations operating in Kuwait, rather than parametric test (OLS regression), where the majority of assumptions concerning OLS regression fail to adhere to the dataset of the study.

The results, as provided in the below table, are seen to provide some degree of support for the work by Jensen (2015), where the current study showcases, Board outsiders, Board insiders, audit committee expertise and audit committee size as having a positive effect on the link between profit warnings and stock price in the environment of those firms operating in Kuwait. In contrast, audit committee and Board size has a negative impact on the relationship between profit warnings and stock price. Such findings are seen to be aligned with other works, including those carried out by Cox *et al.* (2017), Jensen (2015) and Francis *et al.* (2004), where such findings could be justified for a number of reasons, including political, economic and cultural factors. Lastly, the experiential indication garnered throughout the course of this study is relatively consistent with the viewpoint that sound corporate governance has an effect on the link between profit warnings and stock price.

## 5. Conclusion

In the current work, the impacts of profit warnings declarations on the amount of organisation-specific data included in stock price was analysed, with inverse measurement by stock return. In this case, profit warnings were recognised as the declarations published by publicly listed organisations, notably made available before formalised financial statements were announced, in mind of providing users with a warning concerning financial information and as a means of expressing that earnings would differ to those which had been expected in line with previous levels. Profit warnings are recognised as being either negative or positive, with a positive effect of profit warnings expected when it comes to stock price. As previous studies have considered, a potential relationship between profit warnings and stock price may be witnessed, with the study carried out by Dayanandan *et al.* (2017) stating that the profit warnings of organisations are linked with abnormal returns during the days of declaration, implying that such organisation-specific data are used by investors when it comes to making investment decisions. In line with our expectations, the findings highlight profit warnings as having a significant positive link on the amount of organisation-specific data included in stock price.

Finally, the data for this current study is limited as related to a single country, and the generalisation of our results could be limited. In addition, a qualitative understanding into profit warnings and stock price is needed. Therefore, a wide range of sample are needed to involve more countries in one study to be possible to generalise the results whether in developed or developing countries.

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