VALUE RELEVANCE OF SEGMENTAL REPORTING: THE CASE OF QATARI AND JORDANIAN LISTED COMPANIES

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ABSTRACT

The International Accounting Standards Board (IASB) issued IFRS 8 in November 2006 as a convergence project with the Financial Accounting Standards Board (FASB); IFRS 8 became effective for periods beginning on or after 1 January 2009 (IASB, 2006a; Mardini et al., 2012). IFRS 8 converged with its US counterpart, Statement of Financial Accounting Standard (SFAS) No. 131, except for minor differences of terminology to adapt to other IASs (Mardini et al., 2013). In converging with the US standard, IFRS 8 led to one of the more important changes in standard setting by the IASB; the management approach was introduced which allowed companies to determine segments and decide on what information should be included in their annual reports based on data supplied to the Chief Operating Decision Maker within the organisation; prior to IFRS 8, rules had specified how a segment was to be defined for reporting purposes and a list of items of information had to be provided for each identifiable segment. The IASB launched a post-implementation review of IFRS 8 in 2012; this review recognised that the information provided by the standard was different to that which might have been supplied previously but argued that the new approach seemed useful to investors. The researchers therefore will analyse the value relevance of segmental reports after the IASB’s review by adopting decision usefulness theory as a theoretical framework. Specifically, for two years (2013-2014), segmental data for Jordanian and Qatari Listed Companies will be studied to see if the information published is associated with company share prices. The analysis will address three questions: first, is the segmental information now provided by companies under IFRS 8 value relevance and does it help explain share prices? Second, over the two year period analysed, has there been any change in the value relevance of any segmental reporting information in each country? Third, is there any difference in the value relevance of segmental data between Jordanian and Qatari Listed Companies?

Keywords: Value Relevance, Segmental Reporting, Segmental Information, IFRS 8, IAS, Qatar, Jordan
1. INTRODUCTION

The major change with IFRS 8 is that it requires company segments to be identified in accordance with the management approach for financial reporting purposes. This approach has been controversial for shareholders and regulatory bodies alike since previous disclosure requirements for segments had been very different (Mardini et al., 2013). The IASB initiated a post-implementation review of IFRS 8 on 2012 to determine whether or not the standard was functioning as intended (IASB, 2013). Moreover, the post-implementation review also sought to gather empirical evidence about the usefulness of segmental reporting prepared in accordance with the requirements of IFRS 8’s management approach. However, the review staff found that the implications of the new segment reporting standard have not been subject to a great deal of empirical research – especially outside of Western Europe and Australia. Specifically, they concluded that “current academic studies have generally not considered the impact of IFRS 8 on the usefulness for investors of segment disclosure based on the management approach” (IASB, 2013, P.7). Our objective is to address gap in the literature by examining the usefulness of segmental information under IFRS 8 with an analysis of its value relevance. Specifically, we believe that value relevance can be employed to uncover evidence about whether financial information about segments has some of the fundamental characteristics of useful information (relevance and faithful representation) (Emmanuel and Garrod, 2002; Al Jifri and Citron, 2009; Birt and Shailer, 2009; IASB, 2013). The researchers for the current study will adopt the Ohlson (1995) model’s to examine the value relevance of segmental reports for the sample of companies from the two developing countries being considered. The significance of such research relies on its objectives which include the importance of segmental reporting, its usefulness to users of financial statements and its value relevance in developing countries. Our ultimate objective is to raise the awareness about the importance of segmental reporting across all countries in the Middle East. In other words, the current study contributes to the literature review by providing evidence for decision usefulness of segmental reports under IFRS 8. Moreover, this study can also be interest for international standard setters (IASB) as well as Jordanian and Qatari policy makers. Specifically, the current research will address four questions: first, is the segmental information now provided by Qatari and Jordanian companies under IFRS 8 value relevant and does it help explain share prices? Second, over the two year period analysed, has there been any change in the value relevance of any segmental reporting information in each country (Jordan and Qatar)? Third, is there any difference in the value relevance of segmental data between Jordanian and Qatari Listed Companies? Finally, what aspect of the segmental disclosures from Qatari and Jordanian companies is relevant for share values: the number of segments for which information is disclosed; the number of items of information disclosed for each segment; the type of segmentation employed by companies in their Annual Reports (by geographic region of by business activity).

2. LITERATURE REVIEW

IFRS 8 is identical to its equivalent US standard, SFAS 131. However, the IFRS 8 has some minor differences of interpretation and terminology changes required to adapt to other International Accounting Standards (IASs). Specifically, the IASB has noted that the following differences exist between IFRS 8 and SFAS 131. First, IFRS 8 requires disclosure of information
about segment liabilities if regularly reviewed by the entity’s Chief Operating Decision Maker (CODM); this information is not required under SFAS 131. Second, IFRS 8 requires an entity to determine its operating segments by reference to the core principles of IFRS 8; specifically, “a matrix form of analysis based on an entity’s products and services is required under SFAS 131 to determine the operating segments of US companies” (IASB, 2006, para BC60). Specifically, under SFAS 131 entities can use a matrix form to represent their organisation’s structure; analysis of performance by products and services can be one dimension of this matrix while analysis by geographic area can be the other dimension.

The IFRS 8 requires “operating” segments to be identified in accordance with the management approach. Specifically, operating segments are to be identified on the basis of internal reports that are “[…] regularly reviewed by the Chief Operating Decision Maker (CODM) to make decisions about resources to be allocated to the segment and assess its performance” (IASB, 2006, para 5). IFRS 8 also requires to disclose entity-wide disclosures (EWDs) where “an entity’s reportable segments may hold assets in different geographical areas and report revenues from customers in different geographical areas, or more than one of its reportable segments may operate in the same geographical area” (IASB, 2006, para 31); Particularly, the EWDs required are revenues from external customers and the value of assets (IASB, 2006, para 33).

In the recent decade, the decision usefulness of segmental disclosures has increased as an important factor by regulators; specifically, they demand about the type of information that is required by users in their decision-making processes (Mardini et al., 2012). However, prior studies found that the current segmental standards may not be useful to users since they do not meet the needs of decision makers that relay on the annual reports to consider their decisions since managers may restrict the publication of information if they do not consider such disclosure to be in their own interest (Hossain and Marks, 2005). As a result, a gap may exist between the actual and expected usefulness of segmental information – there may be a difference between expected and actual segmental disclosures because of the principal-agent problems which may be present. Prior US-based studies have investigated the usefulness of the US standard on segmental reporting - SFAS 131. These studies have argued that more useful segmental disclosure reduces this gap between management and the outsiders, enhances the market value of the firm, lowers the company’s cost of capital and increases the liquidity of the whole stock market (Herrmann and Thomas, 2000; Botosan and Standford, 2005; Hossain and Marks, 2005; Hope et al. 2008). In the context of IFRS 8, few studies have investigated the usefulness of segmental information. For instance, Crawford et al. (2012), Nichols et al. (2012), Mardini et al. (2013), and Mardini and Almujamed (2015) found an increase in the number of reported segments and items upon IFRS 8 adoption for a variety of different countries and firms. However, these studies have focused on descriptive aspects of the standard’s introduction.

In summary, some segmental reporting gaps have not been investigated thus far. Specifically, the current study tries to explore the following gaps in a developing country context: (i) Does the management approach under IFRS 8 provide useful information?; (ii) Does the IFRS 8 provide superior value relevance information?; (iii) Does the segmental information under IFRS 8 help to explain share prices?; and (iv) What aspect of the segmental information produced under IFRS 8 is value relevant?
3. RESEARCH METHODOLOGY

3.1 Sampling

The current research will cover companies listed on the first market of the Amman Stock Exchange (ASE) and all Qatar Exchange (QE) listed companies. The insurance sector will be excluded from the sample since the Insurance Regulatory Commission (IRC) issues instructions for the sector as regards the implementation of IFRS. In addition, companies will be excluded if they have not disclosed any segmental information or disclosed details for less than 2 segments. The annual reports of the sample companies will be downloaded from the websites of (i) the company, (ii) the ASE and (iii) QE. The share price, book value and financial data will be collected from (i) ASE, (ii) QE and (iii) DataStream and Compustat data basis.

3.2 Methodology

The main objective of the current study is to examine the value relevance of segmental reporting post- the implementation review of IFRS 8. To this end, this research will use Ohlson’s (1995) model to achieve the this objective; this model has been widely employed by many empirical studies in developed countries, but rarely used in developing countries’ research. The Ohlson (1995) model aims to measure the value relevance of company operations for the shares.

Ohlson (1995) develop the model based on three primary assumptions; namely: (i) the value of equity is equal to the present value of expected future dividends; the underlying probabilistic framework implies an objective set of beliefs; (ii) a clean surplus occurs which means that all changes in assets and liabilities go through the Income Statement; and (iii) a linear information dynamic characteristics reality; this variable is defined as current earnings minus the risk-free rate multiplied by the beginning of period book value (Ohlson, 1995). Based on these three assumptions, Ohlson (1995) developed his model which comprises a number of interrelated equations. Initially, Ohlson (1995) considered an economy with risk neutrality and homogenous beliefs; the market value of the firm in this setting equals the present value of expected future dividends. Given that the interest rates follow a stochastic process and a flat term structure exists, the first assumption, the present value of the expected dividends, reduces to:

\[ P_t = \sum_{r=1}^{\infty} R_f^{-r} E_t[d_{r+t}] \]  

where \( P_t \) = the market value (price) of the firm’s equity at date t, \( d_t \) is the net dividends paid at date t, \( R_f \) = is one plus the risk-free rate, \( E_t \) = the expected value operator conditioned on the date t information.

Equation 1 expresses the first assumption of the model, that the price equals the present value of the expected dividends; the model allows for negative \( d_t \), that is, where capital contributions may exceed dividends disbursements (Ohlson, 1995).
Moving to the second assumption of the model (the clean surplus assumption); Ohlson (1995) developed a general framework in which value depends on earnings and book value in addition to current dividends. Specifically, Ohlson (1995) labelled the first two variables as follows: (i) $x_t$ which represents the earnings for the period $(t-1, t)$; and (ii) $y_t$ which represents (net) book value of equity at date $t$. Indeed, to formalise these two aspects of owners' equity accounting, Ohlson (1995) introduced the following mathematical restrictions:

$$
\hat{y}_t / \hat{d}_t = -1, \quad \hat{x}_t / \hat{d}_t = 0
$$

Equations 2.1a and 2.2b express the clean surplus assumption of the model. This clean surplus relation can then be applied to express $P_t$ in terms of future (expected) earnings and book values instead of the sequence of (expected) dividends in the present value of expected dividends formula.

$$
P_t = y_t + \sum_{t=1}^{\infty} R_f^{-r} E_t [x_{t+r}^a]
$$

where $P_t =$ the market value (price) of the firm’s equity at date $t$, $y_t =$ (net) book value of equity at date $t$, $R_f =$ is one plus the risk-free rate, $E_t =$ the expected value operator conditioned on the date $t$ information, $x_t^a =$ abnormal earnings.

The final assumption of the model concerns the time-series behavior of abnormal earnings. Thus, two variables enter the specification which are abnormal earnings, $x_t^a$, and other information, $v_t$. In this way, the assumption about the information dynamic is expressed. Assuming that $\{x_t^a\}_{t \geq 1}$ satisfies a stochastic process, then the second basic equation of the model is developed as follows:

$$
x_{t+1}^a = \alpha x_t^a + v_t + \varepsilon_{t+1}
$$

$$
v_{t+1} = \alpha v_t + \varepsilon_{t+1}
$$

Where the disturbance terms, $\varepsilon_{1r, \varepsilon_{2r, r \geq 1}}$, are unpredictable, zero-mean, variables; that is, $E_t[\varepsilon_{k}] = 0, k = 1,2, \tau \geq 1$. Indeed, the third assumption places no restrictions on the variances and covariance of the disturbance terms; hence, the variances may be heteroscedastic. The parameters of the process, $\omega$ and $\gamma$, are fixed and known. The final condition refers to the assumption that the unconditional means of $x_t^a$ and $v_t$ are zero (Ohlson, 1995).

Based upon these three assumptions of the Ohlson (1995) model which are expressed in equations [1-4], Ohlson (1995) derived the valuation model based on equation 4.1 and 4.2, and evaluated $\sum R_f E_t [x_{t+r}^a]$ given the information dynamic. Hence, the linearity in the specification of the model leads to a linear solution:

$$
R_t = x_t^a + \alpha_1 x_t^a + \alpha_2 v_t
$$

Where $\alpha_1 = \omega/(R_f - \omega) \geq 0$, $\alpha_2 = R_f \omega/(R_f - \omega)(R_f - \gamma) > 0$. 

- 285 -
Equation 5 indicates that the market value equals the adjusted book value for (i) the current profitability as measured by abnormal earnings; and (ii) other information that modifies the prediction of future profitability.

Adding more structure through assumptions relating to information dynamics, Ohlson (1995) derived the following equation:

$$P_t = (1 - K) y_t + K(\varphi x_t - d_t) + \alpha_s v_t$$

where

$$K = (R_f - 1) \alpha_1 = (R_f - 1) \omega / (R_f - \omega), \quad \varphi = R_f \omega (R_f - 1), \quad v = \text{other information except abnormal earnings}, \quad x_t = \text{earnings for the period (t-1, t)}, \quad d_t = \text{net dividend paid at date t}, \quad \omega \text{ and } \alpha \text{ are known parameters with values between 0 and 1.}$$

Equation [6] implies that the estimate model can be viewed as a weighted average of book value and earnings; Indeed, Ohlon (1995) assumed the clean surplus relation to replace dividends with earnings/book values in the present value formula; then, assumptions on the stochastic behavior of the accounting data resulted in a multiple-date. Hence, he derived an uncertainty model such that earnings and book value act as complementary value indicators. Thus, the framework for the examination of the cross-sectional association between firm value and segmental disclosure in the current study is based on the above equation. The linear regression of this model is:

$$P_{it} = \alpha_0 + \alpha_1 BV_{it} + \alpha_2 Earnings_{it} + \epsilon_{it}$$

where \(P_{it}\) is the market value at the year-end \(t\) for firm \(i\), \(BV_{it}\) is the book value of equity at year end \(t\) for firm \(i\) and \(Earnings_{it}\) is earnings for year \(t\) available to firm \(i\)’s common shareholders. In order to avoid the bias from the variations in firm size, all variables with this model will be scaled by the number of shares outstanding as follows: The linear regression of this model is:

$$P_{it} = \alpha_0 + \alpha_1 Cons\_equity_{it} / Shares_{it} + \alpha_2 Cons\_Earnings_{it} / Shares_{it} + \epsilon_{it}$$

Where:

\(p_{ti}\) = Stock price 90-days after the end of financial year \(t\) for entity \(i\)

\(Shares_{t;i}\) = Number of shares at financial year end \(t\) for entity \(i\)

\(Cons\_equity_{t;i}\) = Book value of equity of year \(t\) for entity \(i\) deflated by the number of shares outstanding

\(Cons\_earning_{t;i}\) = Income of year \(t\) for entity \(i\) deflated by the number of shares outstanding

In order to examine the value relevance of segmental reporting, Equation [8] will be modified to include segmental reporting variables pre and post the implementation review of IFRS 8 as follows in Equation [9]:

$$P_{it} = \alpha_0 + \alpha_1 Cons\_equity_{it} / Shares_{it} + \alpha_2 Cons\_Earnings_{it} / Shares_{it} + SR - YR_{it} + \epsilon_{it}$$

\(SR\_YR\): interaction variable of segmental information and a dummy variable 1 which represent the number of reporting segments of 2013 and 0 The number of reporting segments of 2014

Then Equation [9] will be broken down further in order to include sub-variables of segmental reporting including (ii) income/loss for each segment (ILS); (ii) assets for each segment (AS)
(iii) liabilities for each segment (LS); and (iv) book value of equity for each segment (BVES); and (v) segments reported with loss (SRL). The redesigned model is as follows:

$$P_n = \alpha_0 + \alpha_1 \text{Cons}_{equity} + \alpha_2 \text{Cons}_{Earnings} + \alpha_3 \text{AS} + \alpha_4 \text{ILS} + \alpha_5 \text{LS} + \alpha_6 \text{BVES} + \alpha_7 \text{SRL} + \epsilon_n$$

[10]

4. CONCLUSIONS

To the best of the researchers’ knowledge, there are no studies which have investigated the extent of segmental information and its value relevance after the IASB’s post-implementation review of 2012, especially for developed countries. Thus, we will develop the current study from previous investigations that have looked at IFRS 8 at the time of its introduction; prior findings from previous studies will form the backdrop against which current results can be compared. Some databases will be accessed to collect primary data for the purpose of this study. These databases include Data Stream and Compustat. In addition, segmental data will be collected by hand from copies of the financial statements the sample companies from Qatar and Jordan.

5. REFERENCES


