

## **IFRS and Socio-cultural Orientation in Egypt, Iran and Iraq**

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*Recently, Egypt and Iraq were identified among those countries with greatest potential for economic growth by 2050 and Iran, as a runner up. This paper examines the potential of each country to establish high quality financial reporting, based on International Financial Accounting Standards (IFRS). This analysis is an extension of cultural accounting value studies, combining Hofstede cultural value dimensions and Gray accounting value dimensions. Accounting value profiles were compared with a proposed IFRS favorable accounting value profile. This paper expands the analysis to include additional factors and creates two quantitative indices. Results from the analysis by country are discussed in terms of economic and financial implications. Opportunities for improving the quality and sustainability of financial reporting and directions for further research are identified.*

### **INTRODUCTION**

After the rise of optimism that accompanied the early events of the Arab Spring, many in the region now find grounds for despair in the setbacks and political turmoil affecting the greater Middle Eastern region. Just two years ago, two countries in the region were cited in a global list of economies with potential for the greatest growth by the middle of this millennium and a third was placed on the short list of runner-ups. (Buiter & Rahbari, 2011) These countries are Egypt, Iraq and Iran.

This paper examines the cultural potential of each of these countries to establish a sufficiently high quality of financial reporting, based on International Financial Accounting Standards (IFRS). This will contribute to increased international trade and the successful allocation of international capital, critically needed for stability and economic growth. The analysis is an extension of cultural accounting value methods used in previous studies of emerging economies. (Borker, 2013b) (Borker, 2012b) Those studies examined Hofstede cultural value dimensions (Hofstede, 1980) and Gray corresponding accounting value dimensions (Gray, 1988) for selected countries to develop accounting value profiles that were compared with a proposed IFRS favorable accounting value profile. In the present paper, this approach is quantified by using the Composite IFRS Orientation Index and the Expanded IFRS Orientation Index developed by the author which incorporates additional socio-cultural factors besides Hofstede value scores, including indexes for perceived corruption, political risk, educational level, and regulatory business orientation. (Borker, in press) The IFRS favorable accounting value profile is expanded to include one additional accounting value beyond Gray's four accounting value dimensions – stewardship.

From the standpoint of IFRS current implementation status, there is some diversity among the three countries examined. Egypt and Iraq both require IFRS for domestic listed companies, while Iran does not permit IFRS. Historically, in 1995, Egyptian Accounting Standards (EAS) were established as an Arabic version of the existing International Accounting Standards (IAS) with minor differences. New EAS rules

were issued in 2006 and currently all listed companies are required to use IFRS. (Farag, 2009) (Kholeif, 2008) Iraq's Interim Law on Market Securities adopted in 2004 requires all companies listed on the Iraq Stock Exchange to use IFRS for financial reporting. Also, banking law administered by the Central Bank of Iraq requires IFRS. In Iran, all public and not for profit entities in both public and private sectors are required to use the Iranian National Accounting Standard (INAS). INAS was developed based on IFRS, but there are differences in the accounting treatment between INAS and IFRS and certain IFRS standards are not applicable in Iran (Mashayekhi & Shahnaz, 2008). However, Iran is converging with IFRS and a new project has been launched to incorporate IFRS revisions into IANS to maintain a higher level of compliance with IFRS. (PWC, 2012) (Deloitte, 2012)

Each of the three countries has an identifiable standard setting body. All of these are governmental organizations or have close affiliation with the government. In Egypt, accounting standards are developed by the Standards Committee of the Egyptian Society of Accountants and Auditors. A committee headed by the Egyptian Minister of Investment reviews, approves and issues the standards. In Iraq, the standard setting body is the Board of Accounting and Auditing Principles and Standards whose members are appointed by the government. Two members are from the Ministry of Finance, one from the Ministry of Trade, one from the Accounting and Auditing Association and two represent Iraqi universities. (Deloitte, 2008) In Iran, the official standard setting body is "The Audit Organization." The Audit Organization is a financially independent legal entity affiliated with the Ministry of Economic Affairs and Finance. Its funding consists of a significant percentage of Iranian audit revenue. (Iran Audit Organization, 2007) All of these countries have relatively unstable political environments. In the case of Iran, this situation is complicated by the control of a radical clerical Islamic leadership that exerts control over all organizations and activities.

The remaining sections of the paper consist of: (a) a statement of the paper's purpose, (b) a discussion of the literature that addresses relevant previous work relating to cultural and accounting value analysis, (c) a methodology section that describes basic hypotheses and the methods by which data were collected and developed, (d) a results and analysis section, describing actual results of the study, (e) a discussion section, in which implications of the study are addressed, and (f) a conclusion that summarizes the value of the study and suggests directions for further research.

## **STATEMENT OF PURPOSE**

The purpose of this paper is to examine the relative potential of Egypt, Iran and Iraq to establish and maintain sufficiently high quality financial reporting based on an evaluation using two quantitative measures (1) the Composite IFRS Orientation Index, and (2) the Expanded IFRS Orientation Index, both developed by the author in a recent study. (Borker, in press) These measures are determined by a quantitative analysis of each country's culturally derived accounting values as they relate to IFRS. Four of these accounting values are taken from Sidney Gray's accounting value dimensions -- Conservatism, Uniformity, Professionalism, and Secrecy. To these, a fifth value dimension, Stewardship, was added based a set of selected sociocultural factors. The aim of the analysis is to understand the cultural ease with which these countries will adapt to IFRS relative to one another and to countries outside the Middle East and North Africa (MENA) group, to gain regional and country specific insights into strengths and opportunities for improvement, and to test the validity of the measurement methodology by applying it in a variety of regional and country contexts.

## **LITERATURE REVIEW**

In 1980 Geert Hofstede published his initial book on cultural value dimensions worldwide. He reported index scores for individual countries for four cultural dimensions: Power Distance (PDI), Individualism (IDV), Masculinity (MAS) and Uncertainty Avoidance (UAI). (Hofstede, 1980) Subsequently, Hofstede developed additional cultural dimensions including Long-Term Orientation (LTO) and Indulgence vs. Restraint (IVR). (Hofstede, 2001) (Hofstede, Hofstede, & Minkov, 2010)

These dimensions are fully described on Hofstede's website. (Hofstede, 2013) Eight years after the appearance of Hofstede first treatise on his cultural value dimensions, Gray posited a relationship between Hofstede individual country cultural value dimensions and a set of accounting value dimensions. Gray identified four accounting dimensions: Conservatism (opposite of Optimism), Uniformity (opposite Flexibility), Professionalism (opposite Statutory Control) and Secrecy (opposite Transparency). (Gray, 1988) He related these accounting dimensions to Hofstede cultural dimension in the form of four hypotheses presented in Table 1 below.

**TABLE 1**  
**GRAY'S FOUR HYPOTHESES**

<b>H1</b>	The higher a country ranks in terms of individualism and the lower it ranks in terms of uncertainty avoidance and power distance then the more likely it is to rank highly in terms of professionalism.
<b>H2</b>	The higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism then the more likely it is to rank highly in terms of uniformity.
<b>H3</b>	The higher a country ranks in terms of uncertainty avoidance and the lower it ranks in terms of individualism and masculinity then the more likely it is to rank highly in terms of conservatism.
<b>H4</b>	The higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism and masculinity then the more likely it is to rank highly in terms of secrecy.

Gray qualifies his hypotheses with observations regarding the relative importance of various Hofstede dimensions in relation to his accounting dimensions. For example, in discussing Professionalism, Gray noted that Hofstede's IDV and UAI are strongly linked to his Professionalism value, while PDI is linked, but not as strongly, to the Professionalism value.

In recent years, Braun and Rodriguez quantified each of Gray's four accounting dimensions for individual countries by taking a simple average of scores for the corresponding Hofstede dimensions. (Braun & Rodriguez, 2008) In the case of scores for dimensions that have a negative or inverse relationship to a Gray accounting dimension, the Hofstede score is adjusted in the following manner. The mean score for that dimension for total countries analyzed is subtracted from the specific country's score. Next, this value is multiplied by -1, and then added to the mean score. By using this conversion of negatively correlating Hofstede scores, they were able to create opposite positive scores for each Hofstede dimensional component of a Gray accounting dimension. By using a simple average in their computation, Braun and Rodriguez assume that all Hofstede dimensions that relate to a given Gray dimension should have an equal weight. This does not take into consideration Gray's observations regarding his hypotheses that certain Hofstede dimensions have a greater or lesser importance than others in determining Gray's dimensions. (Gray, 1988)

In a recent theoretical paper, Borker developed a revised mapping of the relationship between Gray accounting value dimensions and Hofstede cultural value dimensions that provides relative weightings based on Gray's indications in his original article and, also, expands the model to include two Hofstede dimensions identified after Gray's article, specifically Long-term orientation (LTO) and Indulgence versus Restraint (IVR). (Borker, 2013a) Table 2 below summarizes the positive and negative relationships between Gray and Hofstede dimensions, using '+' to represent a lower weight positive correlation, '+ +' to represent a higher weight positive correlation, and '-' and '- -' to represent, respectively, lower versus higher weighted negative correlation relationships. Finally '?' is used to represent no, or an uncertain, relationship between the Gray and Hofstede dimension. The use of these symbols for the first four Hofstede dimensions (see shaded area in table) was intended to reflect Hofstede's own comments in his original article on the greater or lesser importance of certain Hofstede dimensions. The use of these symbols under Hofstede's two later dimensions, LTO and IVR, indicated Borker's assumed relationship between these two dimensions and Gray's four accounting dimensions based on an examination of the Hofstede value dimensions for the seven Anglo-American countries. (Borker, 2013a)

**TABLE 2**  
**EXPANSION OF HOFSTEDE-GRAY RELATIONSHIPS**

	<b>Power Distance: PDI</b>	<b>Individualism: IDV</b>	<b>Masculinity: MAS</b>	<b>Uncertainty Avoidance: UAI</b>	<b>Long-Term Orientation: LTO</b>	<b>Indulgence vs. Restraint: IVR</b>
<b>Conservatism</b>	+	-	-	++	+	-
<b>Uniformity</b>	+	--	?	++	+	-
<b>Professionalism</b>	-	++	?	--	-	+
<b>Secrecy</b>	++	--	-	++	+	-

Borker also proposed an IFRS favorable accounting value profile based on Gray accounting dimensions. This profile assumes that the ideal IFRS accounting value profile for a country was one characterized by a low degree of the dimensions Conservatism, Uniformity and Secrecy, and a high degree of the dimension Professionalism. This translates into a profile of Optimism, Flexibility, Professionalism and Transparency. Although only published in 2013, the concept of individual country dimensional profiles and an IFRS favorable profile are applied in several studies before and after publication. These include studies of the BRIC countries, emerging economies in Central and Eastern Europe and the 3G economies (Borker, 2012a) (Borker, 2012b) (Borker, 2013b) In a more recent study, a methodology was developed for measuring the level of country's cultural IFRS orientation through two indices, the Composite IFRS Orientation Index and the Expanded IFRS Orientation Index. (Borker, in press)

## **METHODOLOGY**

The present study applies a methodology for determining a country's Composite IFRS Orientation Index and Expanded IFRS Orientation Index (Borker, in press) to each of the three high growth MENA countries. This study provides an opportunity to test these measurement tools and their relative effectiveness.

The Composite IFRS Orientation Index is derived by following a series of step that are indicated in the description provided below:

1. Quantitative scores for each of the Gray accounting value dimensions are developed by averaging Hofstede cultural dimension values having an identified positive or negative relationship to the Gray dimension. In the case of negatively correlated Hofstede dimensions, these are first converted into to opposite positively correlated scores in the manner suggested by Braun and Rodriguez. (Braun & Rodriguez, 2008) Three alternative versions of the Gray Accounting dimension scores are determined differing averaging of Hofstede scores:
  - A. Simple average of adjusted Hofstede scores for the original four dimensions as Braun and Rodriguez had done..
  - B. Weighted average of the adjusted Hofstede dimension scores using weights suggested by Hofstede textual comments about his hypotheses (Borker, in press), and
  - C. Weighted average of all six of Hofstede's dimension scores based on an expansion of Gray's model to include LTO and IVR dimensions (Borker, in press)
2. For each of these three sets of Gray Accounting dimension scores determined, a Composite IFRS Orientation Index is developed by computing a simple average of the adjusted scores for the four accounting dimensions based on the assumption that the Gray dimensions Conservatism, Uniformity and Secrecy have a negative relationship to IFRS orientation, and that the dimension Professionalism has a positive relationship to IFRS orientation. In the case of negatively correlated Gray dimensions, these are first converted into to opposite positively correlated scores

in the manner described above.

3. The result of the computation is the country's Composite IFRS Orientation Index. Since there are three different versions of the underlying Gray Accounting dimension scores, the analysis produces an A, B, and C weighted versions of the Composite IFRS Orientation Index.

The Expanded IFRS Orientation Index is derived from the Composite IFRS Orientation Index. It is determined by taking a weighted average of the Composite IFRS Orientation Index, weighted at 80% plus scores for four sociocultural indices each weighted a 5%. These indices are:

1. The Corruption Perception Index (CPI) provided by Transparency International, (Transparency International, 2013)
2. An adaptation of AON's political risk ratings by which the higher a country's political risk, the lower the score it receives (AON, 2013)
3. The United Nation's Education Index adjusted for inequalities, (Malik, 2013) and
4. The World Bank's Regulatory Index. (World Bank, 2013)

The purpose of the Expanded IFRS Orientation Index was to introduce a fifth accounting dimension beyond Gray's Conservatism, Uniformity, Professionalism and Secrecy. This fifth dimension is identified as the degree to which a national accounting culture embodies the value of Stewardship. Stewardship is defined as the responsibility for taking good care of resources entrusted to provide relevant and reliable financial information on the resources that they control, but are owned by others, i.e., shareholders. A country with a high level of Stewardship is assumed to be more likely to protect the interests of individual equity and credit investors. The four sociocultural indices listed above are used as proxies for Stewardship under the assumption that Stewardship is more likely to exist in countries where there is low corruption, low political risk/instability, a high level of fairly distributed educational opportunity, and a commercially progressive regulatory environment. As with the Composite IFRS Orientation Index, the Expanded IFRS Orientation Index is developed in A, B, and C weighted versions, based on the three different versions of the underlying Gray Accounting dimension scores. (Borker, in press)

## RESULTS AND ANALYSIS

Hofstede cultural dimension scores are provided for Egypt, Iran and Iraq in Table 3. In addition, for comparative purposes, data are provided for three other countries outside the region: the United States, Russia, and Spain. The United States represents a country very close the IFRS profile. Russia represents a country with an extreme opposite orientation. Spain is a non-MENA Mediterranean country with cultural characteristics closer to Egypt, Iran and Iraq. These countries are included along with Egypt, Iran and Iraq in all the tables that follow, as well. Availability of Hofstede value dimensions is essential in order to quantify the Gray dimensions for these countries and develop the components necessary to determine the Composite IFRS Index scores for each country.

**TABLE 3**  
**HOFSTEDE CULTURAL VALUES BY COUNTRY**

	<b>PDI</b>	<b>IDV</b>	<b>MAS</b>	<b>UAI</b>	<b>LTO</b>	<b>IVR</b>
<b>Egypt</b>	<b>70</b>	<b>25</b>	<b>45</b>	<b>80</b>	<b>7</b>	<b>4</b>
<b>Iran</b>	<b>58</b>	<b>41</b>	<b>43</b>	<b>59</b>	<b>14</b>	<b>40</b>
<b>Iraq</b>	<b>95</b>	<b>30</b>	<b>70</b>	<b>85</b>	<b>30</b>	<b>17</b>
<b>Spain</b>	57	51	42	86	48	44
<b>United States</b>	40	91	62	46	26	68
<b>Russia</b>	93	39	36	95	81	20

Gray accounting value dimensions are calculated for each country based on A, B, and C weightings of the Hofstede cultural dimension scores in Table 4.

**TABLE 4**  
**GRAY ACCOUNTING VALUES BY COUNTRY**

Gray Dimension Scores Based on (A) Simple Average of 4, (B) Weighted Average of 4, and (C) Weighted Average of 6 Hofstede Dimensions				
	Conservatism	Uniformity	Professionalism	Secrecy
	A / B / C	A / B / C	A / B / C	A / B / C
<b>Egypt</b>	<b>66 / 69 / 63</b>	<b>71 / 71 / 64</b>	<b>44 / 43 / 43</b>	<b>66 / 68 / 64</b>
<b>Iran</b>	<b>55 / 56 / 49</b>	<b>55 / 54 / 48</b>	<b>60 / 60 / 60</b>	<b>55 / 55 / 50</b>
<b>Iraq</b>	<b>66 / 70 / 65</b>	<b>80 / 76 / 69</b>	<b>36 / 38 / 38</b>	<b>66 / 72 / 68</b>
<b>Spain</b>	59 / 64 / 60	60 / 61 / 57	55 / 53 / 51	59 / 59 / 68
<b>United States</b>	30 / 33 / 30	28 / 25 / 25	87 / 89 / 83	30 / 29 / 28
<b>Russia</b>	75 / 79 / 78	79 / 76 / 76	36 / 38 / 31	75 / 77 / 77

Composite IFRS Scores are calculated for each country based on the Gray dimension scores above and adjusted for dimensions with a negative relationship to IFRS orientation in Table 5 below. Three alternatives are provided for each dimension, based on A, B, and C weightings of the Hofstede cultural dimension scores.

**TABLE 5**  
**IFRS COMPOSITE INDEX BY COUNTRY**

IFRS Composite Index A, B, and C versions					
	Conservatism	Uniformity	Professionalism	Secrecy	IFRS Index
	A / B / C	A / B / C	A / B / C	A / B / C	A / B / C
<b>Egypt</b>	<b>45 / 46 / 45</b>	<b>43 / 42 / 42</b>	<b>44 / 43 / 43</b>	<b>44 / 43 / 44</b>	<b>44 / 43 / 44</b>
<b>Iran</b>	<b>57 / 59 / 59</b>	<b>59 / 59 / 59</b>	<b>60 / 60 / 60</b>	<b>55 / 57 / 58</b>	<b>58 / 59 / 59</b>
<b>Iraq</b>	<b>45 / 45 / 43</b>	<b>35 / 37 / 37</b>	<b>36 / 38 / 38</b>	<b>44 / 40 / 40</b>	<b>40 / 40 / 40</b>
<b>Spain</b>	52 / 51 / 48	54 / 52 / 50	55 / 53 / 51	51 / 52 / 50	53 / 52 / 50
<b>United States</b>	82 / 82 / 77	86 / 88 / 82	87 / 89 / 83	80 / 83 / 79	84 / 85 / 80
<b>Russia</b>	35 / 36 / 30	35 / 37 / 30	36 / 38 / 31	35 / 35 / 31	36 / 36 / 31

Table 6 shows a ranked list of countries for the Composite IFRS Orientation Index under each of the three weighting alternatives.

**TABLE 6**  
**COMPOSITE IFRS ORIENTATION INDEX BY RANKING OF COUNTRY SCORES**

	<b>A Composite IFRS Orientation Index</b>		<b>B Composite IFRS Orientation Index</b>		<b>C Composite IFRS Orientation Index</b>
<b>United States</b>	84	<b>United States</b>	85	<b>United States</b>	80
<b>Iran</b>	58	<b>Iran</b>	59	<b>Iran</b>	59
<b>Spain</b>	53	<b>Spain</b>	52	<b>Spain</b>	50
<b>Egypt</b>	44	<b>Egypt</b>	43	<b>Egypt</b>	44
<b>Iraq</b>	40	<b>Iraq</b>	40	<b>Iraq</b>	40
<b>Russia</b>	36	<b>Russia</b>	36	<b>Russia</b>	31

The Composite IFRS Index is combined with four additional sociocultural factors to produce the Expanded IFRS Orientation Index in Table 7. Three alternative index results are provided for each country, based on A, B, and C weightings of the Hofstede cultural dimension scores.

**TABLE 7**  
**EXPANDED IFRS ORIENTATION INDEX BY COUNTRY**

<b>Expanded IFRS Orientation Index based on Weighted Average of Composite IFRS Orientation Index and Four Additional Factors A, B, and C versions</b>						
	<b>Gray Based IFRS Index 80%</b>	<b>Corruption 5%</b>	<b>Political Risk 5%</b>	<b>Education 5%</b>	<b>Regulation Index 5%</b>	<b>Expanded IFRS Orientation Index</b>
	<b>A / B / C</b>					<b>A / B / C</b>
<b>Egypt</b>	44 / 43 / 44	34	10	35	23	40 / 41 / 40
<b>Iran</b>	58 / 59 / 59	30	-10	44	-4	49 / 53 / 50
<b>Iraq</b>	40 / 40 / 40	19	-10	33	-19	33 / 36 / 33
<b>Spain</b>	53 / 52 / 50	70	90	82	71	58 / 57 / 56
<b>United States</b>	84 / 85 / 80	78	90	94	101	85 / 86 / 82
<b>Russia</b>	36 / 36 / 31	30	50	78	21	38 / 38 / 33

Table 8 provides a ranked list of countries for the Expanded IFRS Orientation Index under each of the three weighting alternatives.

**TABLE 8**  
**EXPANDED IFRS ORIENTATION INDEX BY RANKING OF COUNTRY SCORES**

	A Expanded Composite IFRS Index		B Expanded Composite IFRS Index		C Expanded Composite IFRS Index
<b>United States</b>	85	<b>United States</b>	86	<b>United States</b>	82
<b>Spain</b>	58	<b>Spain</b>	57	<b>Spain</b>	56
<b>Iran</b>	49	<b>Iran</b>	53	<b>Iran</b>	50
<b>Egypt</b>	40	<b>Egypt</b>	41	<b>Egypt</b>	40
<b>Russia</b>	39	<b>Russia</b>	38	<b>Iraq</b>	33
<b>Iraq</b>	33	<b>Iraq</b>	36	<b>Russia</b>	33

## DISCUSSION

Results indicate that Iran ranks first in IFRS orientation at all levels and under all weighting scenarios with IFRS orientation index scores ranging from 50 to 59, except for 49 for the A version expanded index. Its IFRS scores for all of the Gray dimensional components consistently exceed those of the other two countries and range from 57 to 60. Egypt ranks second with scores for IFRS orientation at all levels and weighting scenarios ranging from 40 to 44. Iraq has the lowest IFRS orientation with scores at all levels and weighting scenarios ranging from 33 to 40.

All three countries have Composite IFRS and Expanded IFRS scores that are much lower than the United States, and two others, Iran and Egypt, have scores higher than Russia. Iraq's scores are higher than Russia for the Composite IFRS Orientation index, but are similar or lower than Russia on the Expanded IFRS Orientation Index. The United States and Russia were selected for comparison because they represent two extremes on the IFRS cultural orientation continuum. In terms of the six Hofstede cultural dimensions that are major inputs to both IFRS orientation indices, the United States is characterized by relatively high IDV, MAS and IVR dimensions and relatively low PDI, UAI and LTO dimensions. In contrast, Russia is characterized by relatively low IDV, MAS, and IVR dimensions and relatively high PDI, UAI and LTO dimensions. The United States has all of the cultural and accounting value characteristics identified as favorable for IFRS implementation, while Russia has the exact opposite. The fact that all three of the MENA countries examined here have lower scores relative to the United States is reasonable given the recognized strong IFRS orientation of the Anglo-American countries. The three MENA countries are generally much closer to Russia than the United States in terms of all Hofstede cultural dimensions except IVR. That is to say, like Russia, they have relatively low IDV, MAS, and IVR and relatively high PDI and UAI, although not all to the same degree as Russia. With respect to LTO, long-term orientation, the MENA countries have relatively low dimensional scores, like the United States. Low LTO can be observed in most MENA countries, as well as, some other Islamic countries, such as Pakistan and Bangladesh, and is associated with a shorter-term bottom line orientation. The higher IFRS indices rankings for Iran and Egypt relative to Russia are due to their having less extreme scores than Russia on the five dimensions where they are closer to Russia than the United States. For example, for PDI and UAI dimensions, where Russia has relatively high scores, Iran's scores are only 62% of Russian scores for both of these dimensions, and Egypt's are 75% and 84%, respectively. In contrast, Iraq's scores for PDI and UAI are 102% and 89%, respectively of the Russian scores. Iraq is actually more extreme than Russia on the power-distance dimension. A similar analysis of the scores on Hofstede's IDV and IVR dimensions, where Russia's scores are relatively low, shows that Iran has higher scores and is less like Russia than Egypt or Iraq.

All of the above translates into highest Composite IFRS Orientation Index scores for Iran and lowest scores for Iraq. Iraq's lowest ranking for the Expanded IFRS Orientation Index with scores equal to or

below Russia's in some versions reflects primarily the additional unfavorable impact of corruption and regulatory environment social variables included in the expanded index. Generally, Iraq had the least favorable index components for the four social variables (corruption, political risk, education and regulatory environment).

The third non-Mena country selected for comparison, Spain, was chosen for its relative closeness regionally and culturally to the three MENA countries. IFRS Index scores for Spain are closer to the high end of the three MENA countries for IFRS orientation. Iran ranks above Spain on the Gray based IFRS Orientation Index in all versions. However, on the Expanded IFRS Index, where corruption, political risk, education and regulatory environment are factored in, Spain consistently ranks above Iran. Generally, IFRS orientation scores for these three MENA countries have more in common with Spain and other southern European Mediterranean countries like Portugal and Greece. These European countries share historical and geographical connections to North Africa or Asia Minor.

Rankings for IFRS orientation for Egypt, Iran and Iraq do not relate directly to the degree of actual IFRS implementation that has taken place in each, at least as far as the highest and lowest scores are concerned. Iran has the highest scores for IFRS orientation based on accounting values, but does not yet permit the use of IFRS in financial reporting. Iraq has the lowest scores for IFRS orientation, but is the only country described as fully IFRS compliant, requiring use of IFRS by all domestic listed companies. Only Egypt, with middle level scores for IFRS orientation, is, correspondingly in the middle for actual IFRS implementation with partial convergence.

The unexpected mismatch for Iran and Iraq between cultural accounting orientation and actual IFRS implementation achievements can be explained by internal and external political factors. Iran's extremist Islamic regime may be setting ideological constraints on accounting standard setting that are out of line with culturally based accounting values. (Noravesh, Dilami, & Bazaz, 2007) In fact, the large Iranian population in diaspora exhibits strong business and market oriented values consistent with the findings of this study. On the other hand, Iraq's apparent full IFRS compliance is likely to be more the result of strong US influence during its recent occupation of Iraq than any internally based accounting values.

## CONCLUSION

Of the three high growth potential MENA countries investigated, the study found Iraq to be the one with the highest cultural orientation toward high level accounting standards like IFRS, in spite of its current zero stage status for IFRS implementation resulting from the policies of Iran's current ideological regime. Egypt was found to rank somewhat below Iran, but above Iraq which had the lowest level of IFRS orientation based on both the Composite IFRS Orientation Index and the Expanded IFRS Orientation Index. All of the countries, however, should be viewed as far enough from optimal scores on these indices to justify educational and professional training efforts focusing on the cultural accounting values of Professionalism, Optimism, Flexibility and Transparency and need the support of the IASB and internal organizations to foster reporting more in the intended spirit of IFRS.

The results of this study support the value of quantification of Gray culturally based accounting value dimensions, as well as, the inclusion of additional sociocultural factors associated with accounting dimension of Stewardship in studying and comparing IFRS orientation in individual countries. They are also consistent with and support qualitative judgments about the closeness of individual country profiles to an IFRS favorable profile discussed in previous literature (Borker, 2012a and 2013a). The study provided quantified measures of the degree to which these countries' culture based accounting values create an IFRS favorable orientation by use of the IFRS Composite Index and Expanded IFRS Orientation Index. The study also provided useful testing of the methodology for computing these indices.

Quantitative results for Egypt, Iran and Iraq document some accounting culture affinity to Spain and other countries of southern European Mediterranean countries that have higher Expanded IFRS Orientation Index scores due to more stable social variables in the areas of corruption, political risk, education and regulatory environment. At the same time, the cultural accounting value mix of these

countries reflects a certain degree of attraction to counter IFRS values of Secrecy, Statutory Control, Uniformity and Conservatism, exhibited to a greater degree by Russia.

Directions for further research could include the continued application of the IFRS Composite Index and Expanded IFRS Orientation Index to additional countries and area groups across the globe to gain further insights into national accounting values and orientation toward IFRS. With regard to the current MENA study, this analysis needs to be expanded to include other important MENA and Islamic emerging countries such as Turkey, Morocco, Pakistan, Bangladesh and Malaysia. Other geo-cultural areas for analysis are the Central Asia, economic grouping such as the BRIC and 3G countries covering Asia, Africa, and Latin America, and the Shanghai Cooperative Organization that bridges China, Russia and Central Asia. In addition to broadening the base of national cultures under analysis, there is a need for more research into characteristics of actual company IFRS financial reporting in different countries with divergent accounting cultures and IFRS orientations. On the methodological level, there is a need for quantitative analysis of individual countries and country groupings to evaluate the impact of differences between versions A, B, and C weightings, respectively, on comparative results. Also, factor components of the proposed Stewardship accounting dimension need be reviewed further for possible substitution or expansion.

This study supports the value of quantifying Gray accounting value dimensions to study and compare individual countries and for qualitative judgments about the closeness of individual country profiles to an IFRS favorable profile argued in previous literature (see Borker, 2012a and Borker, 2013b). It also supports previous research indicating that emerging economies with accounting value profiles closer to the IFRS favorable profile tend to be associated with higher economic growth prospects than do countries with profiles more remote from the IFRS profile.

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