Purpose: We address issues relating to the United National Millennium Development Goals (UNMDG) in the Middle East, analysing socio-cultural issues having direct relevance to the region's progress toward “Promote Gender Equality and Empower Women”.

Methodology: We employ meta-analyses with data from the United Nations, the Arab Human Development Report, and various sources of measurement of national means for Hofstede’s five-dimensional model of cultural value.
Findings: We find percent of women in employment, excluding the agricultural sector in our sample of Middle East countries has declined since 2000, while in the samples of other Muslim-majority and all other countries the percent employed has increased.

Research limitations/implications: The limitations of our research are that complete sets of data for women in employment are not available for all years for all countries in our samples.

Practical implications (if applicable): Implications for practice for governments and businesses in Middle East countries are that women are a valuable economic resource who are being excluded from contribution and for the past decade the change in the Middle East has been in a negative direction.

Social implications (if applicable): The economic contributions and rights of women in the Middle East lag behind most of the developed and developing nations, including other Muslim-majority nations.

Originality/value: This study provides empirical evidence from publically available data concerning the employment status of women in Middle Eastern nations. We found no similar empirical studies in the literature. The study is of value to planners and policy-makers in business, government, and Non-Governmental Organisations.

Category: Research Paper

Keywords: Middle East, Islamic values, tribal values, gender, employment, U.N. Millennium Development Goals

Article Classification: Review and meta-analysis

Introduction

In this article for the Foresight special issue, “Is the Middle East the land of the future?”, we will address issues relating to the United National Millennium Development Goals (UNMDG, United Nations, 2000) in the Middle East. We will limit our discussion to the third goal, “Promote Gender Equality and Empower Women”, with specific reference to women’s participation in business activities. We aspire to shed light on the Middle East and its collective recognition in
the world scene. Aspects included in this paper will be socio-cultural features which have direct relevance to the region's progress toward the UNMDG Goal 3.

To guide the development of this paper, the authors reviewed a myriad of lists and have compiled a broad definition of the Middle East. This was no easy task as the literature has not included, with consistent specificity, a finite list of countries to be exhaustively defined as the “Middle East”. To start, we eliminated what the Middle East is not. For the purposes of this paper, we suggest that the Middle East does not include Maghreb or European nations. We also suggest that societies of non-Arabic racial descent be excluded. In order to define the overall focus of this paper, we offer the following societies as our exhaustive list encompassing the “Middle East”, with generic super-categories.

1. Bahrain (Arabian Peninsula)
2. Egypt
3. Kuwait (Arabian Peninsula)
4. Iraq (Mashriq)
5. Jordan (Mashriq)
6. Lebanon (Mashriq)
7. Oman (Arabian Peninsula)
8. Qatar (Arabian Peninsula)
9. Palestinian Territories
10. Saudi Arabia (Arabian Peninsula)
11. Syria (Mashriq)
12. United Arab Emirates (Arabian Peninsula)
13. Yemen (Arabian Peninsula)

Note that this includes Arab nations bound by the Arabian Peninsula, Mashriq, and the Sinai Peninsula. We have chosen to not include Iran (Persian decent), Turkey (Turkish decent), and the Maghreb region. Also excluded from this list of “Middle East” nations is Israel. Certainly, Israel is a nation included in the geography bound by the Arabian Peninsula and Mashriq; however, we suggest that our list be limited to Arab ethnicity, Arab language, and the use of Arab script.

From the above list of thirteen nations, we were forced to eliminate the Palestinian Territories due to the fact that comprehensive data was not available. For the purposes of this paper, we will use the twelve remaining nations as our representative definition of the Middle East.

Thomas, Cuervo-Cazurra & Brannen (2011) suggest that manuscript authors pay particular attention to properly and thoroughly describe the relationships between constructs. Specifically, Thomas et al. offer that “…authors cannot assume that readers will somehow automatically understand how the constructs are related to or build on each other” (p. 1074). With this in mind, we endeavour to provide insight into the relationships between societal cultural values and observable environmental indices of gender equality. This article is a survey and review article, and is exploratory in nature; hence we are seeking to identify and define relationships rather than test hypotheses. We are exploring the relationships, if any, between the UN’s Millennium Development Goal 3, Target 11 (sometimes labelled as Goal 3.2), and cultural value dimension
scores from Hofstede’s five-dimensional (5D) framework with specific emphasis on Middle Eastern countries.

**U.N. Millennium Development Goals**

The United Nations Millennium Development Goals (UNMDG) initiative has brought the long-existing issue of women's rights in the Middle East to increased prominence, in tandem with research studies, policy debates, and feminist activism. The UNMDG goal and target we are specifically concerned with is Goal 3: Promote Gender Equality and Empower Women; Target 11: Share of women in wage employment in the non-agricultural sector.

As an adjunct, we carried out an extensive literature review concerning gender equity in education and found that nearing parity or exceeding female/male parity in education and literacy outcomes did not appear to be significantly positively related to share of employment for women; so we will focus on the latter, as the very low participation of women in the labour force and low employment levels are widely considered a missed opportunity for economic growth and development (Chamlou et al., 2008). The World Economic Forum and the Organisation for Economic Co-operation and Development (WEF & OECD) (2011) report significant progress in the region to increase women’s educational attainment rates, and over the past decade, almost all Middle East & North Africa (MENA) countries have closed 90 percent or more of the gender gap in education. However, these improvements in education have not been matched with comparable increases in female labour force participation rates: approximately 33 percent of working-age women join the labour force, compared with 56 percent in global low- and middle-
income countries and 61 percent in OECD (Organisation for Economic Co-operation and Development) member countries. Furthermore, in all countries of the MENA region (with the exception of the Palestinian Authority) women who join the labour force have consistently higher involuntary unemployment rates than their male counterparts. The gender gap in unemployment is largest in the United Arab Emirates, Saudi Arabia, Kuwait, Yemen, and Egypt, where the female involuntary unemployment rate is nearly four times the male unemployment rate. The Arab Fund for Economic and Social Development (AFESD) in 2006, OECD data (O’Sullivan, Rey & Galvez Mendez, 2011), and the United Nations Development Programme (Chaaban, 2010) indicate the labour market outcomes for women in the MENA region could be attributed to prevailing cultural attitudes, gendered laws, and weak support services (see also World Bank, 2011).

Timmer & McClelland (2004, p. 3) point out that the status of women in Muslim countries, as measured by employment, education, health, and political participation varies by region. For example, women’s participation in the labour force in Muslim-majority countries in Europe, Eurasia, and East Asia is close to that of developed countries. However, women’s participation is much lower in the MENA region and South Asia than in developed countries, and lower than in other Muslim-majority countries. Political participation measured by the proportion of female seats in parliament in Muslim-majority countries is higher than in OECD countries, except in the MENA region. In the Middle East, North Africa, and South Asia negative discrimination concerning women is institutionalised in laws and societal practices that prohibit women from fully participating in public life or fully competing in the labour market.
Korinek (2005) provides a review of evidence of micro- and macro-level studies that indicates that gender inequality inhibits long-term national economic growth. Korinek suggests two reasons. First, better-educated women with more control over household resources have been shown to bring an increase in spending on children’s education, health, and nutrition; thereby investing in future generations and the future labour force. This is particularly true in developing countries where household resources are relatively scarce. Second, unused female potential in terms of lower levels of education, employment, remuneration, and access to productive resources implies that the allocation of economy-wide resources is sub-optimal. Timmer & McClelland (2004, pp. 7-8) believe a significant contributor to the lack of significant economic progress in the Muslim world is due in large part to the relegation of women to an inferior position in society whereby the Islamic world reduces the contributions from the talents and energies of half its people.

Moghadam (2008) summarises commentary from area experts who contend that for women to play a larger role in the economy and society is vital to the Middle East region's progress. Our literature review indicates women in the region still face gender discrimination that prevents them from reaching their potential, despite impressive gains in education and health. To varying degrees across the countries, discrimination against women is built into cultural attitudes, government policies, and legal frameworks. The region's family laws codify discrimination against women and girls, placing them in a position subordinate to men in the family, a practice that is then replicated in the economy and society. For example, Korinek (2005) finds evidence that women are constrained from moving into more skilled, higher-paying jobs when trade
liberalisation occurs because they have less access to resources, advanced and developmental education, and time.

The World Values Surveys (Inglehart & Welzel, 2005 & 2010) are designed to measure all major areas of human concern, from religion to politics to economic and social life. Two dimensions dominate the picture: (1) Traditional vs. Secular-rational values and (2) Survival vs. Self-expression values. These two dimensions explain more than 70 percent of the cross-cultural variance on scores of more specific values. The traditional vs. secular-rational values dimension reflects the contrast between societies in which religion is very important and those in which it is not. Also, societies near the traditional pole emphasize the importance of parent-child ties and deference to authority, along with absolute standards and traditional family values. Such societies also reject divorce, abortion, euthanasia, and suicide. Societies with secular-rational values have the opposite preferences on all of these topics.

The second major dimension of cross-cultural variation, Survival vs. Self-expression values, is linked with the transition from an industrial society to a post-industrial society. The unprecedented wealth that has accumulated in advanced societies during the past generation means that an unprecedented share of the population has grown up taking survival for granted. Thus, priorities have shifted from an emphasis on economic and physical security above all, toward increasing emphasis on subjective well-being, self-expression, and the quality of life. Societies with low secular-rational values have the opposite preferences on all of these topics.

Middle Eastern Islamic countries are amongst the highest globally in traditional and survival
values. These values are generally associated with lower economic development.

**Historical perspective on women’s economic activity in the Middle East**

Summarising Ahmed (1992), Chamlou et al. (2008), Johnson-Odim & Strobel (1999), and Tucker & Nashat (1999) and Meriwether & Tucker (1999): In pre-Islamic, medieval-Islamic, and contemporary-Islamic societies in the Middle East women engaged in a variety of economic activities in agriculture, craft and textile production, the tending of livestock, trade, and other areas. In fact, many women engaged in economic activity that not only supplied subsistence but also generated wealth, especially in agricultural and trade sectors of the economy. In some cases, women were engaged in large scale buying and selling of commodities. Khadija, the first wife of the Prophet Mohammed, was a renowned and wealthy businesswoman, one of many of her time, and an important female role model in Islam. Even where women engaged in local, small-scale trade, they could be very important to the growth and development of long-distance trade and of port towns and urban centres. Original Islamic law permits women to inherit and independently own property; women of the middle class often had property and engaged in various business activities such as selling and buying real estate, renting out shops, and lending money. The absence of male heirs or widowhood could also create economic opportunity for women. Under such circumstances women ran businesses and participated in trades. In Syria the gedik, a license that allowed one to practice a trade, was normally inherited by sons from their fathers. In the absence of a male heir, women could inherit the gedik, and although prevented from practicing the trade, they could sell, rent, or bequeath the license. Hence we see that the original rules of Islam do not prevent women from participating in business activities.
Hofstede’s Five-Dimensional Model\textsuperscript{1} in the Middle East

There are many theoretical models of societal and national culture, see Taras, Rowney & Steel (2009) for a review of the predominant ones. We select Hofstede’s 5D model of national cultural value dimensions, operationalised by his Values Survey Module – 94 (Hofstede & Hofstede, n.d.). There is much literature supporting the use of Hofstede’s models; recent reviews are provided in Taras et al. (2009) and Minkov & Hofstede (2011). One justification for choosing Hofstede’s 5D model is that studies based upon this model provided the largest array of scores for our selected countries in our final 12-nation definition of the “Middle East”. The lack of available data from the Middle East eliminated other models such as the GLOBE 9-dimension model.

From research relating to Hofstede’s 5D model in the Middle East, we find generally high national means for the Power Distance Index (PDI) and Uncertainty Avoidance Index (UAI) as characteristic for the region. This grouping of scores indicates that it is expected and accepted that leaders separate themselves from followers, and followers expect complete and specific directives rather than empowerment. High PDI societies accept high levels of inequality of power and wealth within the society. These populations have an expectation and acceptance that leaders will isolate themselves from followers, and this condition is accepted by the society as their cultural heritage. Findings show that people in high PDI societies tend to be less responsive to unfair treatment and less likely to voice concerns over inequality, thereby preferring more

\textsuperscript{1} The dimensions are Individualism/Collectivism, Power Distance, Uncertainty Avoidance, Masculinity/Femininity, and Long-term / Short-term Orientation. The most recent definitions, descriptions, and discussions are in Hofstede, Hofstede & Minkov (2010). The indices normally have a value between 0 (a low tendency to exhibit the behaviours defined by a dimension, and 100 (a strong tendency), but values below 0 and above 100 are technically possible, and often observed.
cooperative indirect modes of communication (Brockner et al., 2001; Merkin, 2006). Therefore, if communication opportunities are restricted, as may occur for women in the Middle East, the voice is silenced. The high UAI implies tendencies to minimize or reduce uncertainty through strict rules, laws, policies, and regulations being implemented, with the ultimate goal to minimise the unexpected. As a result of this high UAI characteristic, the society does not readily accept change and tends to be very risk adverse.

When combined, high PDI and high UAI mean scores result in societies that are more likely to follow a caste system that retards significant upward mobility of its citizens, whilst inequalities of power and wealth are allowed to grow within the society. In societies where these two dimensions are both high, a situation is created where leaders have virtually ultimate power and authority, and the rules, laws and regulations developed by those in power reinforce their own leadership and control. It is not unusual for new leadership to arise only from armed insurrection as the ultimate power, rather than from diplomatic or democratic change. This is seen from the history and current events in the region.

We often find low Masculinity means for Middle East societies. According to Hofstede, Hofstede & Minkov (2010), high Masculinity implies a society in which emotional gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life, and High Femininity means indicate a society in which emotional gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life. However, the index formula from the VMS 94 Users’ Manual is:
MAS = +60m(05) –20m(07) +20m(15) –70m(20) +100

in which \( m(05) \) is the mean score for question 05, etc. The items are:

- Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to:
  - Item 5. work with people who cooperate well with one another
  - Item 7. have an opportunity for advancement to higher level jobs

- To what extent do you agree or disagree with each of the following statements?
  - Item 15. Most people can be trusted
  - Item 20. When people have failed in life it is often their own fault

The region’s Masculinity index (about at the global average, see Table 1) would appear to be influenced by the heavily weighted relationship-orientated (item 5) and Fatalism-orientated (item 20) statements, rather than any acceptance of equality of gender roles. Reflecting on the fact that the original theory-defining sample came from IBM employees in the 1970s, we can speculate that the typical female IBM employee was not representative of the general population of females in countries, particularly in Middle Eastern countries, which could possibly affect the generalizability of the 1980 national mean scores.

Recent studies (to be further discussed herein) indicate evolution of scores for Individualism/Collectivism since Hofstede’s (1980) original studies. The lowest Hofstede dimension relative to the rest of the world for the Middle East countries is usually the
Individualism ranking (high Collectivism) indicating a close, generally life-time commitment to specific in-groups, beginning from immediate family, extended family, and other extended relationships. Loyalty, favouritism, and nepotism are expected in return for support and protection and override most other societal rules.

Measuring Culture

Hofstede (2001) aggregated his Arabic-speaking countries into a region. At one point individual country data existed; however, when Hofstede started to analyze the Arab countries, he found that the computer magnetic tape with the data had been erased and the paper copy showing a per-country basis had been lost. Only a region-level paper copy remained. Because of this, Hofstede was forced to group Egypt, Lebanon, Libya, Kuwait, Iraq, and Saudi Arabia together as the “Arab World” score. This lost some fidelity of the cultural dimension scores. For example, Hofstede (2001, p. 53) believes that there would have been significantly different indexes for Egypt and for Lebanon. We will not use nor replicate this summary average of scores. Unfortunately we still find studies in the 21st century that continue to combine country scores into an Arab World average, despite Hofstede’s admonition not to do this.

Hofstede (2001) indicates that both the United Arab Republic and Egypt were included in the data set. This appears to be a typo in the 2nd edition of Hofstede’s book (2001). The United Arab Republic originally consisted of present-day Syria and Egypt, and was formed in 1958. However, Syria succeeded from the union in 1961. In 1971, Egypt stopped using the name United Arab Republic and switched back to its prior and current name. It appears that the use of the United
Arab Republic is a mistake and should be considered to be Egypt where found, as Syria is not referenced anywhere in the 2001 book or the cultural dimension lists.

Most of business and culture research has been based on severely narrow, ahistorical, and linguistically naïve concepts frequently driven by flawed, incomplete literature reviews (Yeganeh, Su & Chrysotome, 2004; Yeganeh & Su, 2006; Yeganeh, Su & Sauers, 2009; Vaara, 2000; Earley & Singh, 1995). In an important and apparently not sufficiently widely read article Schaffer & Riordan (2003) supported, for example, by Jenner, MacNab, Briley, Brislin & Worthley (2008), provide evidence that current research efforts should directly measure culture dimensions and not use Hofstede’s published rankings as an automatic proxy for contemporary societies. Comparing original Hofstede rankings for the U.S., Canada, and Mexico, Jenner et al. find mixed results compared to the 1980 and 2001 scores. These findings support Schaffer & Riordan's (2003) position that researchers should not assume distal or sample equivalence to the Hofstede (1980) rankings. Hofstede has published updated scores (Hofstede, n.d.; Hofstede, Hofstde & Minkov, 2010), but the admonition still holds. However, Hofstede and Peterson (2000) contend that existing research results on cultural values can be used as representative of nations as long as there is a close match between the characteristics of (i) the sample upon which the previous research was conducted and (ii) the current sample. The scores we are seeking are of the general population of businesspeople in a country, a close match to the samples of our sources. Operationalisation of values using scores for Hofstede’s dimensions are not absolute measures, but relative positions by which nations can be compared (Hofstede, 2001, p. 73) in a single study. A score for Power Distance, measured from questions in Hofstede’s instrument, gives only an indication of the rich cultural variety by which values concerning social
distribution of power in society tend to vary. “Cultural dimensions were never intended to provide a complete basis for analyzing a culture” (Hofstede & Peterson, 2000, p. 404). If these dimensions are seen as approximations for constructs of cultural values, and if these cultural values affected IBM staff in their survey responses per Hofstede (1980), the issue is not whether the samples are representative of national populations, but whether differences between their responses are representative of differences in cultural values. This point seems to be lost on many cross-cultural researchers.

There have been many criticisms of Hofstede’s processes, model, and sample that have been sufficiently deflected and dealt with by Williamson (2002). As advice for future researchers, the Values Survey Module 08 is not excessively long and can easily be included in survey research instruments to obtain valid data for comparisons.

As this is a survey, review, and summary analyses article, we endeavoured to locate academic, practitioner, and consultant studies in the past ten to fifteen years that have generated more recent estimates of national culture means for Hofstede’s 5D model. We carried out an extensive review of studies using Hofstede’s 4D and 5D theories that employed the VSM 94 in Middle Eastern countries (Abdulram, 2011; Al Dulaimi & Bin Sailan, 2011; Alkailani, 2009; Al-Nashmi, Rahman & Zin, 2011; At-Twaijri & Al-Muhaiza, 1996; Cairns, Oshlyansky & Thimbleby, 2006; Chaitani, 2010; El Said, 2005; Hadizadeh-Moghadam & Assar, 2008; Merkin & Ramadan, 2010; Ribiere & Zhang, 2010; Sharifian & Moaydi, 2010; Taras, Steele & Kirkman, 2011; Tolba, 2003; Isa, Nor & Mehad, 2009). We found extreme dispersion of scores that appears to result from sample variation. We were unable to come up with a satisfactory set of 5D
scores from meta-analyses of the studies. We contacted ITIM International (itim.org) who produce and maintain a set of Hofstede’s 5D scores at geert-hofstede.com under license from Hofstede, based upon the Hofstede, Hofstede & Minkov (2010) published scores and ITIM’s own research. ITIM was very helpful and co-operative in providing the scores and discussing their processes for calculating scores. We are convinced their scores are reliable and valid estimates of national means. For consistency we have used that data set which provides the most complete data for the chosen twelve “Middle East” nations. Some Long-Term Orientation scores were missing, so we employed our literature review results to determine best estimates for national means for that dimension.

**Insert Table 1 about here**

**Method**

To summarise our approach in support of our methods, this article is a survey and review article, and is exploratory, hence we are seeking to define relationships rather than test hypotheses. We are exploring the relationships, if any, amongst the UN’s Millennium Development Goal 3, Target 11, and cultural value dimension scores from Hofstede’s five-dimensional framework with specific emphasis on Middle Eastern countries. Our literature review leads us to believe that these relationships are heretofore unresolved and unexplored. Further, we seek to discover new information and new relationships (Zikmund & Babin, 2007); therefore, we have selected a sample based on convenience, an important aspect of exploratory research, with the convenience being those countries and years for which usable data is available. This is a reasonable and
acceptable process, see, e.g. Hair, Babin, Money, & Samouel (2003); Malhotra (2007); and Zikmund & Babin (2007). Our methodology is to explore relationships between observable gender equality variables and national mean scores from Hofstede’s 5D model; exploring the relationship between culture and specific behaviours.

Data sources

The Statistics Division, Department of Economic and Social Affairs, United Nations, collects and publishes data tracking the “Share of women in wage employment in the non-agricultural sector” across the world (180+ societies). The UNSD has been collecting this data, amongst other elements, since 1990. This particular data set is the percentage of all the women in each respective society who are employed in non-agricultural sectors. We cross list it against the available Hofstede 5D scores for the societies where published data from reliable and valid sources are available.

In our meta-analysis, we were unable to come up with a consistent set of Hofstede 5D scores from myriad published studies. Based upon our past experience with the company, we contacted ITIM International (www.itim.org) who produce and maintain a set of Hofstede’s 5D scores at geert-hofstede.com under license from Hofstede, based upon the Hofstede, Hofstede & Minkov (2010) published scores and ITIM’s own research. ITIM was very helpful and cooperative in providing the scores and discussing their processes for calculating scores. We are convinced their scores are reliable and valid estimates of national means. For consistency we have used the ITIM data set which provides the most complete data. Through personal contact with Michael Minkov
(also see Hofstede & Minkov, 2010) we have provided what we believe are valid estimates of the Long-Term/Short-Term Orientation scores where they were missing.

**Trifurcating the Data**

We split the world data into three mutually exclusive categories.

- Set 1 contains the “Middle East”; typically defined by researchers and practitioners as the Gulf States, Mashriq, and Egypt including Arab ethnicity, Arab language, and the use of Arab script.
- Set 2 contains all those nations, for which there was data available that had a majority Muslim population, excluding those nations that were in Set 1 ( “Set 2: Majority Muslim”).
- Set 3 contained all of the remaining nations for which data was available, excluding Set 1 and Set 2 (“Set 3: All Others”).

**Analysis**

For the purposes of this *Foresight* special issue, our analysis was limited to those years that correspond to the period since the UN’s Millennium Development Goals were established. Our analysis included tracking the changes in the share of women who are employed in the non-agricultural sector since the year 2000. Using the Statistics Division, Department of Economic and Social Affairs, United Nations, data for “Share of women in wage employment in the non-agricultural sector”, a line was fit between the x and y axis (x=year from 2000 to 2009; y=’share
of women…’) for each society. The slope of that line was calculated using the Least Squares method. The standard error of the slope was also calculated. Some societies had a positive trend line (increasing share of women employed), and some negative (decreasing share of women employed) during the period of 2000 to 2009. As may be seen in Table 2, the average slope of “Set 1: Middle East” was negative, indicating an average decrease in the share of women employed in non-agricultural sectors since the proposing of the UNMDG. The average slope was positive for the other two sets. Two-sample t-tests with unequal sample sizes and non-homogenous variances were run. As illustrated in Table 2, two of the three means were found to be significantly different at p<0.05.

Insert Table 2 about here

“Gulf States+Mashriq+Egypt” (our definition of the “Middle East” for the purposes of this paper) had a lower change in female participation in non-agricultural sectors compared to “Set 2: Majority Muslim” nations and “Set 3: All Others” for the period of 2000 to 2009. Set 2: Muslim Majority and Set 3: All Others shows no significant differences in the slopes. The data and analyses indicate that the change in employment rate of women in Set 1: Middle East is significantly lower than for the other two samples.

We turn our attention to the Hofstede 5D scores to determine if any of the cultural dimension scores would be significantly different across our three datasets. Means and standard errors for each of the five dimensions of PDI, IDV, MAS, UAI, and LTO were calculated for each of the
three societal groups. Table 3 indicates the summary scores while Table 4 illustrates the results of the two-sample t-tests for each explored relationship.

Insert Table 3 about here

Insert Table 4 about here

We find:

- Set 1: Middle East had a significantly lower IDV score than Set 2: Majority Muslim at p<0.05,
- Set 1: Middle East had a significantly higher UAI score than Set 2: Majority Muslim at p<0.05;

and,

- Set 1: Middle East had a significantly higher PDI score than Set 3: All Others at p<0.05,
- Set 1: Middle East had a significantly higher UAI score than Set 3: All Others at p<0.05,
- Set 1: Middle East had a significantly lower LTO score than Set 3: All Others at p<0.05;

and,

- Set 2: Majority Muslim had a significantly higher PDI score than Set 3: All Others at p < 0.05,
- Set 2: Majority Muslim had a significantly lower IDV score than Set 3: All others at p < 0.01.

Discussion and Conclusions
This study found two significant differences in the slope coefficients of the share of women’s participation in non-agricultural employment opportunities:

- The employment rate of women in the non-agricultural sectors during the period since announcement of the U.N. Millennium Development Goals has decreased in Middle East (Set 1) countries compared to rate increases in Set 2: Muslim-majority countries and Set 3: non-Muslim-majority countries. This indicates that the countries in the Middle East sample will likely not achieve the UNMDG by the end of the period.

- Considering the Muslim-majority sample outside the Middle East (Set 2), the rates for women are not significantly different when compared to Set 3: All Others. This outcome implies that there are factors other than the acceptance of Islam influencing the employment of women.

Concerning differences in Hofstede’s dimensions for the three country lists in Tables 5 and 6, Set 1: Middle East and Set 2: Muslim-Majority sample means were significantly higher than the “rest of the world” along the PDI continuum.

*Insert Table 5 about here*

*Insert Table 6 about here*

We would expect both men and women in Set 1 and Set 2 countries to accept the unequal distribution of power. Metcalfe (2006, 2007, 2008) and Hutchings, Lirio & Metcalf (2011) refer
to the *Islamic Gender Order* which is based on sexual differences and specifies that men and women have different economic and social roles. They find gender hierarchies are firmly embedded in cultural and organisational practices. Interpretations of the *Qur’an*² in various *fatāwa*³ make explicit many cultural and social practices that discriminate against and disadvantage women in the workplace, although these are differently interpreted and implemented across Middle Eastern Islamic states depending on the nature of Islamic jurisprudence that is followed. Al-Lamky (2007) suggests that in the Arabian Gulf societies it is widely believed that women’s place is primarily at home, and if professionally inclined their participation is expected to be in the areas of education, health (mainly nurses) and other support or clerical jobs, largely at the lower end of organisational hierarchies. Leadership positions are typically reserved for men. Yet it is also essential to avoid generalisations which ignore vast social, economic and political diversity throughout the region. As an example of one extreme, Human Rights Watch (2008, p. 2) states the Saudi Arabian government essentially treats adult women like legal minors compared to developed countries. However, Human Rights Watch (2010) report that in Saudi Arabia some progress is being made in lifting some restrictions on women since 2005 by King Abdullah bin Abd al-‘Aziz Al Saud. It appears that our findings support the unequal treatment of women in the Set 1: Middle East countries where the mean slope measuring the rate of change of the share of women in non-agricultural sectors was significantly lower than Set 2 and Set 3.

² We find various spellings, Koran, Quran, Qu’ran, and Qur’an in publications. We will employ Qur’an.
³ A fatwā, plural fatāwā, in Islamic practice is a ruling capable of having a legal effect concerning Islamic law issued by an Islamic scholar. In Sunni Islam a fatwā is generally non-binding, whereas in Shia Islam it could be considered by an individual as binding, depending on his or her relation to the scholar. Some Muslims argue that anyone trained in Islamic law may give an opinion (fatwā) on teachings (MacFarquhar, 2009).
Along the UAI continuum, we found Set 1 to be significantly higher than both Set 2 and Set 3. Hofstede (1985, p. 348) suggests that higher UAI scores indicate support of beliefs promising certainty and institutions that protect societal conformity. Al-Ahmadi (2011) and Alajmi (2001) find the cultures and customs of the tribal community prevailing and continuing in the Middle East and the Arabian Peninsula from prior to the establishment of Islam. These have contributed to the conservative orientation towards women in the region. Effendi (2003, cited in Al-Ahmadi, 2011) further argues that as most Arab cultures are patriarchal they place women in a passive role at work and in the family. Therefore, Effendi maintains that it is not Islam as such that places women in these roles, but rather the way that patriarchal societies interpret Islam to support their positions regarding what is and is not acceptable behaviour for women. Abdulla (1996) studied attitudes towards women in the Arabian Gulf region and found men were not willing to share public responsibilities with women. Similarly, Ibrahim (1997, cited in Al-Ahmadi, 2011) points out that there is a major contradiction in the views in the Arab world towards women, which reflects a deep rift in the fabric of Arab culture. Ibrahim found that social institutions such as the family, school and the media play a critical role in perpetuating negative values and attitudes towards women’s work and role in society. Although these attitudes towards women are not unique to the Arab world, there they are ingrained in day-to-day opinions, attitudes, beliefs, and behaviours. In high Power Distance, high Uncertainty Avoidance regimes these behaviours will be difficult to change.

For Set 1, the combination of a high PDI score (relative to Set 3) and a high UAI score (relative to both Set 2 and Set 3) seems to retard the rate of change for the share of women in non-
agricultural employment opportunities, and likely explains the negative slope of Set 1: Middle Eastern societies.

Along the IDV continuum, we found both Set 1 and Set 2 to be significantly lower than Set 3. The lowest Hofstede dimension relative to the rest of the world for the Middle East countries is usually the Individualism ranking (high Collectivism), with loyalty to close in-groups, favouritism in business and government, and nepotism expected in return for support and protection and override most other societal rules.

Along the LTO continuum, there was only one statistically significant difference where Set 1: Middle East had a significantly lower LTO score than Set 3: All Others, at p<0.05. This is in line with the Hofstede and Minkov (2010) conclusions that Muslim nations are found to be at the short-term-oriented end of the LTO continuum. They further suggest that economic development of Muslim nations will be a slow process and may even have episodes of disaster. We can easily relate this to Korinek (2005) who suggests that unused female potential in terms of lower levels of education, employment, remuneration and access to productive resources implies that the allocation of economy-wide resources is sub-optimal.

References


http://www.google.co.nz/url?sa=t&rct=j&q=the%20environment%20for%20women%27s%20entrepreneurship%20in%20the%20Middle%20East%20and%20North%20Africa%20region&source=web&cd=1&ved=0CCMQFjAA&url=%2Furl%3Fsa%3Df%3Fq%3Dthe%20environment%20for%20women%27s%20entrepreneurship%20in%20the%20Middle%20East%20and%20North%20Africa%20region&usg=AFQjCNGzWc5zAJ78JwX3-
pCTz2Kzelg&cad=rja


Nashat, G. and Tucker, J. (1999), Women in the Middle East and North Africa. Indiana University Press, Bloomington, IN, USA.


Table 1. Relative Positions of Means for Hofstede’s Five Dimensional Model for Middle East Nations

<table>
<thead>
<tr>
<th>Country</th>
<th>Power Distance</th>
<th>Individualism</th>
<th>Masculinity</th>
<th>Uncertainty Avoidance</th>
<th>Long-Term Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>46</td>
<td>38</td>
<td>53</td>
<td>77</td>
<td>39</td>
</tr>
<tr>
<td>Egypt</td>
<td>70</td>
<td>25</td>
<td>45</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>Iraq</td>
<td>95</td>
<td>30</td>
<td>70</td>
<td>85</td>
<td>30</td>
</tr>
<tr>
<td>Jordan</td>
<td>70</td>
<td>30</td>
<td>45</td>
<td>65</td>
<td>35</td>
</tr>
<tr>
<td>Kuwait</td>
<td>90</td>
<td>25</td>
<td>40</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>Lebanon</td>
<td>75</td>
<td>40</td>
<td>65</td>
<td>50</td>
<td>34</td>
</tr>
<tr>
<td>Oman</td>
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<td>52</td>
<td>12</td>
<td>72</td>
<td>Not available</td>
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<tr>
<td>Qatar</td>
<td>41</td>
<td>78</td>
<td>32</td>
<td>55</td>
<td>41</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>95</td>
<td>25</td>
<td>60</td>
<td>80</td>
<td>36</td>
</tr>
<tr>
<td>Syria</td>
<td>80</td>
<td>35</td>
<td>52</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>UAE</td>
<td>90</td>
<td>25</td>
<td>50</td>
<td>80</td>
<td>10</td>
</tr>
<tr>
<td>Yemen</td>
<td>56</td>
<td>48</td>
<td>40</td>
<td>92</td>
<td>52</td>
</tr>
<tr>
<td>Average</td>
<td>72.3</td>
<td>37.6</td>
<td>47.0</td>
<td>73.0</td>
<td>29.7</td>
</tr>
<tr>
<td>SD</td>
<td>18.6</td>
<td>15.7</td>
<td>15.5</td>
<td>12.8</td>
<td>14.70</td>
</tr>
<tr>
<td>Maximum</td>
<td>95.0</td>
<td>78.0</td>
<td>70.0</td>
<td>92.0</td>
<td>52.0</td>
</tr>
<tr>
<td>Minimum</td>
<td>41.0</td>
<td>25.0</td>
<td>12.0</td>
<td>55.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Global descriptives*

| Mean        | 59.3           | 45.2          | 49.5        | 67.6                  | 45.5                  |
| SD          | 21.3           | 24.0          | 19.3        | 23.0                  | 24.2                  |
| Maximum     | 104.0          | 91.0          | 110.0       | 112.0                 | 100.0                 |
| Minimum     | 11.0           | 6.0           | 5.0         | 8.0                   | 0.0                   |

*From http://www.geerthofstede.nl/*
Table 2. Two-sample t-tests of ‘Share of women employed in non-agricultural sector’

<table>
<thead>
<tr>
<th>Two Sample t-test Unequal sample size Unequal variance</th>
<th>t-test</th>
<th>Results</th>
</tr>
</thead>
</table>
| Set 1: Middle East and Set 2: Majority Muslim | $t = -3.34$  
$p < 0.05$ | The slope of the fitted line for Set 1 is significantly lower than Set 2 at $p<0.05$. |
| Set 1: Middle East and Set 3: All Others | $t = -3.86$  
$p < 0.01$ | The slope of the fitted line for Set 1 is significantly lower than Set 3 at $p<0.01$. |
| Set 2: Majority Muslim and Set 3: All Others | $t = 1.21$  
$p < 0.29$ | Not Significant |
<table>
<thead>
<tr>
<th>Set</th>
<th>Mean 1</th>
<th>Mean 2</th>
<th>Mean 3</th>
<th>SE 1</th>
<th>SE 2</th>
<th>SE 3</th>
<th>N 1</th>
<th>N 2</th>
<th>N 3</th>
</tr>
</thead>
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<tr>
<td>PDI</td>
<td>72.3</td>
<td>74.6</td>
<td>61.0</td>
<td>5.4</td>
<td>5.2</td>
<td>2.3</td>
<td>12</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>IDV</td>
<td>37.6</td>
<td>27.0</td>
<td>40.5</td>
<td>4.5</td>
<td>3.9</td>
<td>2.5</td>
<td>12</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>MAS</td>
<td>47.0</td>
<td>51.9</td>
<td>47.8</td>
<td>4.5</td>
<td>3.8</td>
<td>2.0</td>
<td>12</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>UAI</td>
<td>73.0</td>
<td>61.2</td>
<td>64.1</td>
<td>3.7</td>
<td>4.7</td>
<td>2.6</td>
<td>12</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>LTO</td>
<td>29.7</td>
<td>21.7</td>
<td>42.8</td>
<td>4.4</td>
<td>11.7</td>
<td>4.3</td>
<td>11</td>
<td>3</td>
<td>35</td>
</tr>
</tbody>
</table>
Table 4: Two-sample t-tests of Hofstede’s 5D model across three societal groups

<table>
<thead>
<tr>
<th>Set 1 &amp; Set 2</th>
<th>PDI</th>
<th>IDV</th>
<th>MAS</th>
<th>UAI</th>
<th>LTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE of Sets 1 &amp; 2</td>
<td>1.01</td>
<td>0.90</td>
<td>0.89</td>
<td>0.91</td>
<td>2.07</td>
</tr>
<tr>
<td>t</td>
<td>-2.20</td>
<td>11.75</td>
<td>-5.50</td>
<td>12.89</td>
<td>3.89</td>
</tr>
<tr>
<td>probability</td>
<td>0.384</td>
<td><strong>0.046 (1)</strong></td>
<td>0.207</td>
<td><strong>0.034 (1)</strong></td>
<td>0.285</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set 1 &amp; Set 3</th>
<th>PDI</th>
<th>IDV</th>
<th>MAS</th>
<th>UAI</th>
<th>LTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE of Sets 1 &amp; 2</td>
<td>0.69</td>
<td>0.64</td>
<td>0.63</td>
<td>0.58</td>
<td>0.72</td>
</tr>
<tr>
<td>t</td>
<td>16.34</td>
<td>-4.51</td>
<td>-1.21</td>
<td>15.27</td>
<td>-18.01</td>
</tr>
<tr>
<td>probability</td>
<td><strong>0.036 (1)</strong></td>
<td>0.292</td>
<td>0.439</td>
<td><strong>0.030 (1)</strong></td>
<td><strong>0.021 (1)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set 2 &amp; Set 3</th>
<th>PDI</th>
<th>IDV</th>
<th>MAS</th>
<th>UAI</th>
<th>LTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE of Sets 2 &amp; 3</td>
<td>0.78</td>
<td>0.68</td>
<td>0.67</td>
<td>0.75</td>
<td>2.00</td>
</tr>
<tr>
<td>t</td>
<td>17.41</td>
<td>-19.75</td>
<td>6.20</td>
<td>-3.85</td>
<td>-10.54</td>
</tr>
<tr>
<td>probability</td>
<td><strong>0.018 (1)</strong></td>
<td><strong>0.005 (2)</strong></td>
<td>0.175</td>
<td>0.301</td>
<td>0.102</td>
</tr>
</tbody>
</table>

(1) p < 0.05; (2) p < 0.01
Table 5: Two-sample t-tests of ‘Share of women employed in non-agricultural sector’

<table>
<thead>
<tr>
<th>Two Sample t-test</th>
<th>t-test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unequal sample size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unequal variance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set 1: Middle East and Set 2: Majority Muslim</td>
<td>t = - 3.34 ( p &lt; 0.05 )</td>
<td>The slope of the fitted line is for Set 1 is significantly lower than Set 2</td>
</tr>
<tr>
<td>Set 1: Middle East and Set 3: All Others</td>
<td>t = - 3.86 ( p &lt; 0.01 )</td>
<td>The slope of the fitted line is for Set 1 is significantly lower than Set 3</td>
</tr>
<tr>
<td>Set 2: Majority Muslim And Set 3: All Others</td>
<td>t = 1.21 ( p &lt; 0.29 )</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>
Table 6: Two-sample t-tests of Hofstede’s 5D model across three societal groups

<table>
<thead>
<tr>
<th></th>
<th>PDI</th>
<th>IDV</th>
<th>MAS</th>
<th>UAI</th>
<th>LTO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Set 1 &amp; Set 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE of Sets 1 &amp; 2</td>
<td>1.01</td>
<td>0.90</td>
<td>0.89</td>
<td>0.91</td>
<td>2.07</td>
</tr>
<tr>
<td>t</td>
<td>-2.20</td>
<td>11.75</td>
<td>-5.50</td>
<td>12.89</td>
<td>3.89</td>
</tr>
<tr>
<td>probability</td>
<td>0.384</td>
<td><strong>0.046 (1)</strong></td>
<td>0.207</td>
<td><strong>0.034 (1)</strong></td>
<td>0.285</td>
</tr>
<tr>
<td><strong>Set 1 &amp; Set 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE of Sets 1 &amp; 2</td>
<td>0.69</td>
<td>0.64</td>
<td>0.63</td>
<td>0.58</td>
<td>0.72</td>
</tr>
<tr>
<td>t</td>
<td>16.34</td>
<td>-4.51</td>
<td>-1.21</td>
<td>15.27</td>
<td>-18.01</td>
</tr>
<tr>
<td>probability</td>
<td><strong>0.036 (1)</strong></td>
<td>0.292</td>
<td>0.439</td>
<td><strong>0.030 (1)</strong></td>
<td><strong>0.021 (1)</strong></td>
</tr>
<tr>
<td><strong>Set 2 &amp; Set 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE of Sets 2 &amp; 3</td>
<td>0.78</td>
<td>0.68</td>
<td>0.67</td>
<td>0.75</td>
<td>2.00</td>
</tr>
<tr>
<td>t</td>
<td>17.41</td>
<td>-19.75</td>
<td>6.20</td>
<td>-3.85</td>
<td>-10.54</td>
</tr>
<tr>
<td>probability</td>
<td><strong>0.018 (1)</strong></td>
<td><strong>0.005 (2)</strong></td>
<td>0.175</td>
<td>0.301</td>
<td>0.102</td>
</tr>
</tbody>
</table>

(1) p < 0.05; (2) p < 0.01