# Cultural Determinants of Students' Academic Performance: Evidence from Al-Zahra College for Women

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## *Abstract*

*The main objective of this study is to determine the impacts of cultural factors on students' academic performance in Al-Zahra College for Women. It also specifically assesses which of the Hofstede's cultural dimension significantly relates to academic performance. Quantitative research approach was used to carry out the study with 150 survey questionnaires distributed to the respondents. Selected statistical tools were employed to analyze and interpret the results. Key findings revealed that cultural dimensions of Hofstede's model comprising of power distance, individualism/collectivism, uncertainty avoidance, masculinity/femininity and long-term objectives significantly impact the students' academic performance. However; when tested individually using regression analysis, findings revealed that only individualism/collectivism, uncertainty avoidance, and long-term objectives significantly impacts the students' academic performance. Conclusion was drawn that Hofstede's cultural dimension has proved to be a significant determining factor of students' academic performance in Al-Zahra College for Women. Subsequently, recommendation was offered indicating that culture should be taken due consideration by the management and the academic heads of the College.*

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*Key Words: Culture, Hofstede's Cultural Dimension, Academic Performance, Oman*

## 1. Introduction

Recently, perhaps only few studies had been conducted to assess the impact of culture on students' academic performance. One of the studies already undertaken was that of Kao (1995) that examines the cultural background of Asian students relative to their academic performance. He performed a comparative study that assesses the difference in test scores between the Caucasians and Asians where in his findings he had established a significant difference between these two countries according to the effects of cultural backgrounds on academic performance. Moreover; the study of Fuligni (2001) postulated that Asian students emphasized the importance of academic performance than European students. Moreover, Asian students considered more valuable to finish school and obtain a bachelor's degree in preparation for adulthood. With proper guidance by parents and family members, Asians like in the case of Chinese students consider a big success when they attain higher scores and personal achievement over other nationalities (Duanmu, Li, and Chen, 2010).

Further, to be academically competent like for instance in China, the association of cultural factors of Chinese citizens is believed to be evident where the best ability and efforts will determine how a student can perform excellently (Hau and Salili, 1996). Similarly, Li and Armstrong (2009) stressed that there is positive correlation between Chinese student's academic performance and their behaviors. According to the Chinese famous maxim, "'to be a scholar is to be the top of society' and 'through studying you will gain beautiful girls and houses made of gold' drive most Chinese to believe that, by excelling academically, they will gain success and fortune will follow' (Li and Armstrong, 2009; p. 4). In other words, the cultural factors clearly relate to educational success and on academic performance in particular. In another study initiated by Eddey and Baumann (2009), their findings indicate the relationship between students' cultural backgrounds and academic success where they affirmed the significant difference in academic performance of students from twelve different countries or regions of origins.

In Oman context; culture also plays a big role in shaping the people's behavior especially in their way of living and on the way they deal with others. Preservation of traditions and customs were observed and respected not only by the citizens (Omanis) but also the expatriates. Unlike in United States where students may come from different nationalities, in most colleges in Oman many teachers are expatriates from different countries of origin including but not limited to India, Pakistan, Indonesia, Malaysia, Jordan, Syria, Egypt, Philippines, Libya, Tunisia, America, UK, European countries and others. Specifically, with the chosen organization for this study, Al-Zahra College for Women, the teaching staff in the business department is comprised of Omani Citizen, Syrian, Jordanian, Tunisian, Filipino, and Iraqi, and majority of them are male academic staff.

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Considering that Al-Zahra College for Women is the only College in Oman that caters to female students, the researchers felt that this study is very important specifically in determining the impact of cultural background of female students and their academic performance which is unique compared to other researches where students are mixed with males and females.

Moreover; most of the students live outside the capital city of Muscat wherein in their own places sub-cultures are observed. Hence; it is interesting to find out whether their subcultures in one way or another influence the way they perform in the class. Anchored on these assumptions, the main objective of this study is to determine the impact of cultural dimensions applying the Hofstede's model on the academic performance of the business students in Al-Zahra College for Women. It will also assess which of the cultural dimensions significantly impacts academic performance. The questions formulated from the objectives were two-fold: What is the impact of Hofstede's model on the academic performance of students in Al-Zahra College for Women? and, Which of the Hofstede's cultural dimensions provide impact on students' academic performance? Based on research objectives and questions, conclusion and recommendations will be drawn.

## 2. Literature Review

### 2.1 Conceptual Foundation of Hofstede's Cultural Dimensions

One of the popular studies conducted on culture was that of Hofstede's in 1986 where he applied the concept on leadership styles and supported with his study in 2001. Using the attitude survey questionnaires from employees of more than 50 countries, he revealed the different findings from the five dimensions namely: power distance, individualism/collectivism, masculinity/femininity, uncertainty avoidance, and long-term objectives. *Power Distance* refers to the assumption that there is inequality of power which normally experienced by less powerful members in the organization. Individualism is the mindset that individual decisions are more important than group decision as well as the sense of being individually independent to make a decision. According to Chang (2011), power distance is described as the society's attitude towards human inequality in terms of power, wealth, social status and prestige. Less powerful people are willing to accept the inequality of power which according to Hofstede's (1991) study, higher Power Distance (PD) scores demonstrates power inequality while low scores PD societies strongly promotes equality of power among members (Hofstede, 1991). *Uncertainty avoidance* on the other hand, states that uncertainty or ambiguity can be avoided and minimized to acceptable level by the members of the society. It also measures the extent with which uncertainty is controlled by being rational thinkers. *Masculinity/femininity* emphasized gender roles in decision making which can be classified as masculine societies where men are given preference in employment, leadership and other related roles. While feminine societies consider both men

and women as equally important and have equal roles in the society. *Long-term orientation* is directed towards the concept of future rewards and the fulfillment of present needs and desires (Hofstede, 2001).

Furthermore; the study has expanded its scope into researches conducted by examining its impact in teaching and learning (Barmeyer, 2004; Jippes and Majoor, 2008; Joy and Kolb (2009; Yamazaki, 2005; Rienties, Luchoomun, et al., 2013; Tempelaar et al., 2012). Various findings have been applied with the concept of masculinity/femininity where in Germany and Japan for example, masculinity has been demonstrated which is characterized by competition, settling for the best students as a measure of excellence and the mindset of always striving for excellence, and the concept of failures are considered an unacceptable situation. While in feminine countries including Nordic European countries and Netherlands, the emphasis is not on excellence but on the students of average academic standing which has become the measure of femininity. In other words, attaining excellence is not the priority and thus, consider failure as a constructive outlook for improvement and a feedback for next step in learning (Hofstede, Hofstede, & Minkov, 2010; Tempelaar et al., 2012).

While the conceptual foundation of Hostede's model had already been adopted in social science; some criticisms were raised by many authors and commentators indicating that culture can be lessened into few cultural dimensions depending on cultural diversity possessed by different countries (McSweeny, 2002; Baskerville, 2003; and, Ailon, 2008). This means that Hofstede's model varies on its outcome based on the national culture demonstrated among many countries. Furthermore, in the study of Blodgett, et. al. (2008) with 157 respondents comprising of MBA students and faculty, they have reviewed the Hofstede's 5 cultural dimensions and found that there is questionable validity of the four dimensions namely: (power distance, individualism/collectivism, uncertainty avoidance and masculinity/femininity. The evidence further signifies that the Hofstede's model lacks sufficiency in terms of construct validity when applied to individual level analysis. However; this study intends to investigate the relationship of Hofstede's model on students' academic performance and does not consider extensively the validity of the instrument used to determine the study outcome.

## 2.2 Hofstede's Cultural Dimension in the context of different countries

When the concept of Hofstede's cultural dimension applies to different country settings, varied outcomes are evident. For instance, in various studies findings revealed that in Germany where it is characterized as larger PD countries, the existence of dictatorship is prevalent which is contrary to Italy which is known as small PD country. These findings were utilized as theoretical foundation in determining and comparing the cultural differences towards inequality (Biggs,

1996; Bond, 1996; Cronje, 2011; Hofstede, Hofstede & Minkov, 2010; Machiavelli, 1995; Marcus, 2000). Conversely, in the larger Asian countries social rank and age are more emphasized which was patterned after Confucianism especially those identified as larger PD in order to determine and maintain social stability (Biggs, 1996; Bond, 1996). Furthermore, in Arab speaking countries where the existence of large PD are evident, most individuals strictly follow the social hierarchy where teachers played the role of being authoritarian as part of traditions and practices. However, it was a reverse outcome for those students in United States which is more egalitarian with lower PD far over the Asian and Arabic speaking countries (Cronje, 2011; Marcus, 2000). In the aspect of influences with society's approach to equality on teaching and learning by comparing mainly China and United States, varying perceptions and understanding exist between the two different cultures as integrated in academic instruction and classes. In China, the learning process is teacher-centered and the presence of hierarchy exists wherein teachers are treated with respect and are identified as "guru" who transfers wisdom to students (Hofstede, 1991). But in United States students are more empowered to express whatever their feelings as it is student-centered learning where the teacher treats the students as equal in almost all aspects (Warren, 1999).

However; in the aspect of individualism/collectivism, Hofstede (1991) defined individualism as the degree to which individuals are supposed to look after themselves while collectivism is the degree to which relatively close relationships with groups such as extended family or other communities. Individualism is closely related to small PD societies while collectivism relates with the larger PD societies. The former is characterized by the "I", while the latter is more of the "We" concept where the interest of the group is better than the individual interest (Hofstede, 2007; Triandis, 1995). In China for instance, collectivism is emphasized while in United States, individualism is highly valued by people as they are inclined to individual achievement, independence, and self-expression. In addition, Wang (2006) postulated that education is best viewed as a national effort with collectivism while individual development is how education was perceived for individualism. In the aspect of masculinity and femininity culture, Chinese are culturally embedded with masculinity where they valued most achievement and competition. They prefer to achieve higher scores in examinations and the main measure for success is through high ranking and class standing in the class (Abubaker, 2008; Gao & Waktins, 2002). But in feminine society like the United States, the focus is rather on negotiation, relationships and solidarity (Hofstede, 1997). For the Americans, academic performance of the students is met through holistic approach where grades are not the sole consideration but also social involvement and promotes problem solving and critical thinking (Holmes, 2004). Conversely, Chinese

student's grades and performance in examinations are preferred in defining success in the class which considers higher grades as the main measure as well as an indication of teaching quality that will stem from high expectations from the teachers (Abubaker, 2008; Gao & Waktins, 2002).

Consistent with the other dimensions, different outcomes were also experienced when referred to uncertainty avoidance. Hofstede and Hofstede (2005) stressed out the difference between Germans and British in dealing with uncertainty avoidance. Germans are known of having strong uncertainty avoidance culture while British have low uncertainty avoidance. Preferences are built on stringent laws and policies to follow; security measures; and avoidance of unknown situations while in weaker uncertainty avoidance as demonstrated by British, tolerance for uncertainty is high; fewer rules and regulations and any new laws and changes are welcomed (Hofstede, 2011). In school settings, Germans are more comfortable with structured learning approaches where objectives are precise, detailed assignments, strict timetables and teachers are expected to answer all questions that will be raised by students while British students are confined with unstructured learning that accepts broad assignments, flexible timetables, vague objectives, and teachers can tell the students "I don't know the answer" to a particular question. Finally, the setting of long-term objectives is also perceived differently. Chinese students with their parent's view academic success as related to long-term objective and orientation driven by self-determination and more efforts to achieve it. The influence by parents on education and learning processes are vital to that success where they emphasized the value of hardwork and persistence that is believed to contribute long-term orientation as well as increase the chances of success (Wang, 2007). On the other hand, Americans are comfortable with short-term orientation as evidenced by being short-term oriented like those concerned interest which is immediate, respect for tradition and social responsibility. They possessed creative thinking, learning by doing, and innovative ideas which is evident in the American environment (Xiao, 2009).

## 2.3 Hofstede's Cultural Dimension in Educational Context

Egri and Ralson (2004) postulated that cultural values differ and one of its reasons is related to the long-term and short-term orientation preference. Accordingly, "Culture is an evolving set of shared beliefs, values, attitudes, and logical process which provides a cognitive map for people within a given society group" (p. 200). Moreover; cultural diversity paves the way on diversity in languages among different countries as well as the different educational system that impacts culturally in the teaching and learning processes. For instance, for Chinese students who have studied in the United States, find it difficult to undergo the cross-cultural learning transition process and to adapt the culture of the latter which can be caused by many influences such as the nature of relationship between students and the teacher, teaching and learning environment, the

American academic system, and others. According to GLOBE study, students with diverse cultural backgrounds in Europe accounted to less than five out of ten varied clusters culturally worldwide and in many European universities, registration of employees with different nationalities normally faced with issues on cultural diversity, approaches to stabilize learning processes, and accommodating diversity in prior knowledge (House, Hanges, Javidan, Dorfman, & Gupta, 2004; De Vita, 2001; Joy & Kolb, 2009; Rienties, Grohnert, Kommers, Niemantsverdriet, & Nijhuis, 2011; Rienties, Kaper, et al., 2012; Tempelaar et al., 2012 ).

On the other hand, higher instances of uncertainty avoidance are experienced in countries like Germany where the preference is on detailed assignments, structured learning and expertise of the teachers are most respected. Conversely, in Netherlands and the Nordic countries that are identified as low uncertainty avoidance, teachers encourage open-mindedness, assignments are designed to be objective and are broadly defined (Hofstede et al., 2010). In other words, educational system that adapts the student-centered approach posits a problem-based learning where it best applicable for low uncertainty avoidance and low power-distance while in teacher-centered education the emphasis is built on high uncertainty avoidance and high power distance (Eringa & Huei-Ling, 2009; Jippes & Majoor, 2008; Tempelaar et al., 2012). Evidence from the study of Volet and Ang (1998) in Australia revealed that when Asian and Australian are given responsibility to work together, tendencies emerge as Australians prefer not to work with Asians and vice versa which means that working together may hinder the achievement of favorable outcomes. In determining masculinity and femininity, it turned out that Chinese culture is identified as masculine where class ranking and exam scores are important consideration in achieving school success (Abubaker, 2008; Gao & Waktins, 2002). However; in United States the concept of femininity prevails with emphasis on negotiation, relationships and solidarity (Hofstede, 1997).

## 2.4 Relationship of Hofstede's Cultural Dimension and Students' Academic Performance

Very few studies had been conducted to determine the relationship between Hofstede's cultural dimension and students' academic performance. One of the studies posits a strong correlation between the five cultural dimensions to people's behavior, learning and the way the people think. Cortazzi and Jin's (1997) comparative study between United States and China's culture revealed that these countries generally differ in cultural dimensions on power distance, individualism, and long-term objectives but almost the same in the dimensions of masculinity and uncertainty avoidance. Moreover, Americans prefer to be independent in behaviors and personal opinions as well as promoting equality in both rights and opportunities as citizens. In other words, American's tolerance on different opinions and ideas are high and are comfortable in showing

what they have in terms of achievements and successes (Gao & Watkins, 2002; Upton, 1989; Wang, 2007). With regards to determining specifically which of the Hofstede's cultural dimensions or variables positively or negatively impacts student academic performance, the researchers have not found concrete studies that affirm its relationship. It is for this reason that this study is primarily conducted to evaluate the extent on the impact of each of the cultural dimensions to the students' academic performance as applied to the chosen College, Al-Zahra College for Women in the Sultanate of Oman. From these literatures, the hypotheses are formulated:

H1. Culture applying Hofstede's Cultural Dimension model positively impacts the students' academic performance.

H2. There is relationship between power distance and students' academic performance as perceived by the students of Al-Zahra College for Women.

H3. There is relationship between individualism/collectivism and students' academic performance as perceived by the students of Al-Zahra College for Women.

H4. There is relationship between uncertainty avoidance and students' academic performance as perceived by the students of Al-Zahra College for Women.

H5. There is relationship between masculinity/femininity and students' academic performance as perceived by the students of Al-Zahra College for Women.

H6. There is relationship between long-term objectives and students' academic performance as perceived by the students of Al-Zahra College for Women.

## 3. Research Methodology

This study primarily utilized the descriptive research design with the quantitative approach. Since the research objectives emphasized the determination of significant relationships of independent variables on the dependent variable, the quantitative research approach is considered that attempts to collect quantifiable information to be used for statistical analysis of the population sample. Specifically, 33-item questionnaire patterned and modified after Hofstede's (1986, 2001) five cultural dimensions was distributed to 150 samples from a total population of 277 students who were both registered in Diploma and Bachelor's Degree in the Managerial and Financial Department of Al-Zahra College for Women in Sultanate of Oman. Purposive sampling was used to choose the respondents and in order to make sure that the data are accurate; the selection excludes the students of their first year levels because the researchers believed that their GPAs are not reflective of the academic performance within a short period of stay in the College. The use of purposive sampling primarily based on the researchers' judgment wherein students were selected based on their residency and GPAs. Moreover, the questionnaire is divided into two parts: the first part contains the demographic and socio-economic profile of the respondents and

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part two was designed for the questions focusing on the five cultural dimensions namely: power distance, individualism/collectivism, uncertainty avoidance, masculinity/femininity, and long-term objectives. For interpretation of the scale responses as cited in the study of Jalagat and Al-Habsi (2017), rating scales were used: 1=Strongly Disagree (1.00-1.80); 2=Disagree (1.81-2.60); 3=Neutral (2.61-3.40); 4=Agree (3.41-4.20); and 5=Strongly Agree (4.21-5.00).

To test validity and reliability, the questionnaire was further evaluated through face and content validity with experts who have the first-hand knowledge related to the topic and pre-tested to ensure the accuracy and applicability of the instrument. Reliability was tested using the Cronbach Alpha and the result shows $\alpha = 0.917$ which can be interpreted as highly reliable compared to the lower limit of 0.7 (Hair, et. al., 2014). The data were analyzed using frequencies and tables, mean and standard deviation, correlation and regression analysis. To analyze the demographic and socio-economic profile, the frequencies and tables were employed while mean and standard deviation for addressing the questions related to Hofstede's cultural dimensions which require 5-Point Likert scale responses. Based on the research objectives that highlight the relationship among independent and dependent variables, correlation and regression analysis were used to assess the significant relationships between the Hofstede's cultural dimension variables and the academic performance of the students. Rumsey (2010) suggested an interpretation of the correlation study outcomes with uphill (positive) linear relationship: +0.30, weak positive correlation; +0.50, moderate; +0.70; strong; and exactly +1, perfect positive correlation. Conversely, Downhill (negative) linear relationship is expressed with: -0.30, weak negative correlation; -0.50, moderate; -0.70, strong; and exactly -1, reflects perfect downhill negative linear relationship.

## 4. Results and Analysis

This section shows the analysis and interpretation of the data gathered using appropriate statistical tools to address the research objectives and the hypotheses formulated.

**Table 1: Demographic and Socio-demographic profile of the respondents**

| Specialization | f | % |
|---|---|---|
| Accounting | 35 | 23.3 |
| Business Management | 105 | 70.0 |
| Finance | 10 | 6.7 |
| **Total** | **150** | **100.00** |
| **Occupation of Parents** | **f** | **%** |
| Government Employee | 88 | 58.7 |
| Private Employee | 25 | 16.7 |

| Self-Employed | 23 | 15.3 |
|---|---|---|
| Unemployed | 14 | 9.3 |
| **Total** | **150** | **100.00** |
| **Education of Parents** | **f** | **%** |
| PhD | 14 | 9.3 |
| Master's Degree | 15 | 10.0 |
| Bachelor's Degree | 70 | 46.7 |
| Secondary Graduate | 33 | 22.0 |
| Primary Level | 18 | 12.0 |
| **Total** | **150** | **100.00** |
| **Income of Parents** | **f** | **%** |
| 0-499 | 36 | 24.0 |
| 500-999 | 60 | 40.0 |
| 1,000-1,499 | 24 | 16.0 |
| 1,500-1,999 | 13 | 8.7 |
| 2,000-Above | 17 | 11.3 |
| **Total** | **150** | **100.00** |
| **Family Size** | **f** | **%** |
| 3 members & below | 17 | 11.3 |
| 4-6 members | 30 | 20.0 |
| 7-9 members | 47 | 31.3 |
| More than 9 members | 56 | 37.3 |
| **Total** | **150** | **100.00** |
| **GPA of Students** | **f** | **%** |
| Poor (50-59) | 13 | 8.7 |
| Fair (60-69) | 60 | 40.0 |
| Good (70-79) | 44 | 29.3 |
| Very Good (80-89) | 29 | 19.3 |
| Excellent (90-100) | 4 | 2.7 |
| **Total** | **150** | **100.00** |

Demographic and socio-economic profile of the respondents displayed that, most of the students are specialized in Business Administration (n=105) or 70%; Accounting (n=35, 23.3%); and Finance (n=10, 6.7%). Majority of the occupation of parents of the respondents (n=88, 58.7%) are government employee; private employee (n=25, 16.7%); self-employed (n=23, 15.3%); unemployed (n=14, 9.3%). The educational background by most of the respondents' parents are bachelor's level (n=70, 46.7%) while the least are PhD level (n=14, 9.3%). In terms of the income of parents, 60 out of 150 respondents or 40% have parents' income of (500-999) rials

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followed by 36 respondents or 24% who received between (0-499 and, only 13 respondents or 8.7% received between (1,500-1,999). This may entail that many of the respondents' parents earned only marginal income. On the other hand, the family size of the respondents posted the highest rating with 37.3% or equivalent to 56 respondents (More than 9 members) while the lowest rating comes from those that has (3 members & below) with 11.3% or 17 out of the 150 respondents. Lastly, when examining the GPA of the respondents, it clearly shows that most of the respondents are within "fair" performance rating (n=60) or 40%; good (n=44) or 29.3%; very good (n=29; 19.3%); poor (n=13, 8.7%) and finally the excellent performance with 4 respondents or 2.7%).

**Table 2: Students' perceptions on power distance in relation to their academic performance**

| Power Distance | Mean | Std. Deviation | Rank |
|---|---|---|---|
| 1. I feel that our professor should inform me whenever he will plan his classwork. | 2.88 | 1.26 | 8 |
| 2. I prefer to have professors whom can be respected. | 3.25 | 1.20 | 3 |
| 3. I have the right to agree or disagree with our teacher's discussion. | 3.21 | 1.16 | 5 |
| 4. I feel that it is important to properly address my teacher with his rank and title (Example: Professor or Lecturer). | 3.06 | 1.20 | 6 |
| 5. I prefer to call our teacher by his first name only (For example: Shaika). | 3.00 | 1.18 | 7 |
| 6. I feel confident to tell the professor if I know that he commits mistake/s. | 3.22 | 1.25 | 4 |
| 7. I prefer that the professor will tell me directly the correct answer if I make mistakes in my work/assignments. | 3.35 | 1.12 | 1 |
| 8. I believe that a good professor is the one who answers every single questions that the students will ask. | 3.31 | 1.24 | 2 |
| Average | 3.16 | | |

SD (1.00-1.80); D (1.81-2.60); N (2.61-3.40); A (3.41-4.20); SA (4.21-5.00)

From the results it shows that on the average, the respondents are neutral on their feedback with regards to the questions that described power distance. On top of the responses is on the statement that, "I prefer that the professor will tell me the correct answer if I make mistakes in my work/assignments with (3.35) mean rating. On the other, the least of priority on the respondent's feedback is on the statement that says, "I feel that our professor should inform me whenever he will plan his classwork. These findings may imply that students don't find power distance a general issue in teaching and learning and consider the authority of the teachers in the classroom instruction. Moreover, the students did not feel the presence of inequality in power and ability of the students to learn in the class which may lead to a low PD culture. Hence, there is no difference between the students' perspective when it comes equality of power between the teacher and all students in learning.

**Table 3: Students' perceptions on individualism/collectivism in relation to their academic performance**

| Individualism vs Collectivism | Mean | Std. Deviation | Rank |
|---|---|---|---|
| 1. It is important for me that my school tasks and responsibilities should be interesting. | 3.04 | 1.28 | 6 |
| 2. I would prefer to have enough free time at the College for my personal activities. | 3.26 | 1.13 | 4 |
| 3. I feel more important when my area of specialization will be appreciated by my parents and friends. | 3.44 | 1.06 | 2 |
| 4. I believe that my specialization will allow me to get a stable job in the future. | 3.22 | 1.23 | 5 |
| 5. I feel more confident when my professor will give me time to express myself through comments and opinions. | 3.45 | 1.16 | 1 |
| 6. In group activities, I would prefer that the group members should be rated individually than having one mark for the whole group. | 2.79 | 1.27 | 7 |
| 7. I would prefer that I will choose my own group than the professor choosing who should be the member of the group. | 3.31 | 1.24 | 3 |
| Average | 3.22 | | |

SD (1.00-1.80); D (1.81-2.60); N (2.61-3.40); A (3.41-4.20); SA (4.21-5.00)

In this table, it can be inferred that most responses of the students are neutral when asked about the extent of cultural value of individualism in the teaching and learning environment in Al-Zahra College for Women. However; the respondents generally "agree" on statements 3 (3.44) and 5 (3.45) which states that, "I feel more important when my area of specialization will be appreciated by my parents and friends" and "I feel more confident when my professor will give me time to express myself through comments and opinions" respectively. These results may indicate that the students feel more confident if they are given chances to express themselves in the class and more time to share ideas and opinions related to the class discussion. While previous studies confirm that in Arab countries, it is characterized by high PD and high collectivism (Cronje, 2011; Marcus, 2000), the findings in this study however showed that individualism culture is prevalent. Moreover, students are motivated to study more when their parents and friends support and uplift their morale with the chosen course.

**Table 4: Students' perceptions on uncertainty avoidance in relation to their academic performance**

| Uncertainty Avoidance | Mean | Std. Deviation | Rank |
|---|---|---|---|
| I often feel nervous during examinations. | 2.93 | 1.21 | 6 |
| I am interested to a change in classes based on my decision than following the teacher's plan. | 3.16 | 1.07 | 5 |
| I want easy exams/seatwork/and homework. | 3.39 | 1.19 | 2 |
| I believe that the professor has more responsibility in the teaching and learning in the class. | 3.47 | 1.20 | 1 |
| I believe that success is achieved through hardwork regardless of the level of intelligence of the person. | 3.31 | 1.24 | 3 |
| I always follow the college rules and regulations to avoid trouble and uncertainty. | 3.20 | 1.30 | 4 |

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| Average | 3.24 | | |
|---|---|---|---|

SD (1.00-1.80); D (1.81-2.60); N (2.61-3.40); A (3.41-4.20); SA (4.21-5.00)

The table 4 depicts the level of agreement on uncertainty avoidance as a factor to consider in achieving academic performance. The respondents agree on the statement that says, "I believe that the professor has more responsibility in the teaching and learning in the class" with (3.47) mean rating while they are neutral with all other statements. Interestingly, the least priority of responses was made on the statement saying that, "I often feel nervous during examinations" with (2.93) mean rating. These findings may explain that students feel secure and certain when the professor demonstrates responsibility in the teaching and learning processes in the classroom which they believed that contributes to higher academic performance. Moreover, students prefer the teacher-centered instruction of learning wherein detailed and clear-cut instructions are provided in assignments, exams, and other assessments.

**Table 5: Students' perceptions on masculinity/femininity in relation to their academic performance**

| Masculinity/Femininity | Mean | Std. Deviation | Rank |
|---|---|---|---|
| I feel that it is important when my good work is being noticed by people. | 2.99 | 1.29 | 7 |
| I always feel disappointed whenever I fail in exams and quizzes. | 3.25 | 1.13 | 2 |
| I would feel very sad and downed when I fail in one of my subjects in my specialization. | 3.24 | 1.26 | 3 |
| I feel confident to ask my professor for an extension of my unfinished assignment/tasks which is supposed to be submitted on time. | 3.16 | 1.12 | 4 |
| I feel that the professor should push all the students to learn the subject with equal opportunities. | 3.29 | 1.22 | 1 |
| I am happy if the professor should praise students who exert their efforts to answer regardless of whether it is right or wrong. | 3.14 | 1.30 | 5 |
| I want that there is competition in the class among students so that it will be known who will excel and who will not. | 3.04 | 1.23 | 6 |
| Average | 3.16 | | |

SD (1.00-1.80); D (1.81-2.60); N (2.61-3.40); A (3.41-4.20); SA (4.21-5.00)

In this table, the analysis is focused on the dominant and non-dominant characteristics of the students considering that they are all women. Hence, there is no point of comparison between men and women as designed in the study. Looking at closely of the findings, it clearly shows that the highest mean rating is (3.29) which expressed that, "I feel that the professor should push all the students to learn the subject with equal opportunities". While the least emphasis of the respondents is on the feedback that says, "I feel that it is important when my good work is being noticed by people" with (2.99) rating. This can be interpreted that the feminine concept is more evident according to the student responses which means that equal opportunities should be given to all students.

**Table 6: Students' perceptions on long-term objectives in relation to their academic performance**

| Long-Term Objectives | Mean | Std. Deviation | Rank |
|---|---|---|---|
| I believe that the world is changing and nothing is permanent in the future. | 3.10 | 1.20 | 5 |
| I am preparing myself with my efforts what will be the future awaiting for me. | 3.35 | 1.15 | 4 |
| I am determined to finish my degree and find a stable job in the future. | 3.37 | 1.17 | 3 |
| I learn the value of savings and budgeting while I am still studying. | 3.41 | 1.15 | 2 |
| I am aware that if I will be successful in my career it will determine my status in the society and good reputation. | 3.43 | 1.27 | 1 |
| Average | 3.33 | | |

SD (1.00-1.80); D (1.81-2.60); N (2.61-3.40); A (3.41-4.20); SA (4.21-5.00)

The table reveals the long-term objectives as cultural value that served as factor of students' academic performance. From the findings it can be observed that the students have emphasized on the statement "I am aware that if I will be successful in my career it will determine my status in the society and good reputation" (3.43) which they categorically agreed and followed by also an "agree" response on the statement that "I learn the value of savings and budgeting while I am studying" (3.41). On the other hand, the lowest response with (3.10) is on the "belief that the world is changing and nothing is permanent in the future". This may imply that students have future outlook when it comes to preparing their future careers and to have good status and reputation. They consider their studies as stepping stone into a good career path as well as disciplining themselves by having a good attitude towards planning, savings and budgeting.

**Table 7: Correlations between Hofstede's Cultural Dimensions and Students' Academic Performance**

| Correlations | | Hofstede's Cultural Dimensions | Academic Performance (GPA) |
|---|---|---|---|
| Hofstede's Cultural Dimensions | Pearson Correlation | 1 | .468** |
| | Sig. (2-tailed) | | .000 |
| | N | 150 | 150 |
| Academic Performance (GPA) | Pearson Correlation | .468** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 150 | 150 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | |

The result from correlations indicates the linear relationship between the cultural dimensions and the academic performance of the students. Clearly, the data revealed that there is significant correlation between these two variables with r = 0.468, p=0.000<0.01 level of significance thereby showing a moderate correlation. This means that cultural dimension impacts significantly the academic performance of the students in Al-Zahra College for Women and as the extent of application of this dimension; the academic performance would also increase.

**Table 8: Regression Analysis of Independent & Dependent Variables**

| Variables | *B* | *SE B* | β | *t* | *p* |
|---|---|---|---|---|---|
| onstant | -.828 | 800 | - | -1.035 | .002 |
| Power Distance | -.299 | 355 | -.061 | -.841 | .402 |
| Individualism/Collectivism | 4.202 | 261 | 1.130 | 16.109 | .000 |
| Uncertainty Avoidance | -.005 | 363 | -.001 | -.015 | .049 |
| Masculinity/Femininity | -.836 | 421 | -.177 | -1.987 | .988 |
| Long-Term Objectives | -1.691 | 325 | -.409 | -5.197 | .000 |

R² = .687 (n = 150), F = 63.264, Sig. = .000 **Significant at *p* <
.01 level; *Significant at *p* < .05 level

To test further the significance of Hofstede's cultural dimension variables to the academic performance especially in determining which of these variables significantly impacts students' performance, regression analysis was performed. The results depict that the r² = 0.687 which means that 68.7% explains the variation of the dependent variable (Academic Performance) is caused by the independent variables identified in this study at a standard error of 2.01174. Furthermore, this also indicates that only 31.3% of the variation of the academic performance cannot be explained by the independent variables. The regression ANOVA also implies that the regression model is appropriate for analyzing the variables used with F = 63.264 and significance of 0.000.

On the other hand, in determining the coefficient of the independent and dependent variables, the result clearly reveals that of the five variables namely: power distance, individualism, uncertainty avoidance, masculinity/femininity, and long-term objectives; only individualism (p=0.000<0.01); uncertainty avoidance (p=0.049<0.05); and long-term objectives (p=0.000<0.01) significant correlated to the students' academic performance. While there is no significant correlation on the variables power distance and masculinity/femininity with p-values (p=0.402) and (p=0.988) respectively. Specifically, findings indicate that there is positive significant relationship between individualism/collectivism with Beta value of 4.202 which means that as individualism or collectivism increase, the students' academic performance also increase. On the other hand, significant negative relationships exist between uncertainty avoidance and students' academic performance B-value of -.005 as well as long-term objectives on students' academic performance with B-value of -1.691. These findings can be interpreted that, as orientation of the students on uncertainty avoidance increase, their academic performance tend to decline which

also holds true with the students increasing emphasis of long-term objectives, it may also cause decrease in academic performance, hence; the relationship is inverse.

## 5. Discussions and Limitations

Based on the results of the study, the use of Hofstede's cultural dimension model posits neutral responses as perceived by the business students of Al-Zahra College for Women. This does not mean that the students are not aware of their culture but rather might be more attributable to the friendly teaching and learning environment that is prevalent College-wide. While there is strong power distance and collectivism exists between the students and the teachers in Arabic countries of which Oman is identified as a member, the result is contrary to the above-mentioned studies when applied to the chosen College in this study (Cronje, 2011; Marcus, 2000). Accordingly, findings revealed that the power distance is neutral and moderate individualism. This further implies that the teachers in Al-Zahra College for Women generally have not demonstrated an authoritarian role in the classroom and they instead welcome the student opinions and ideas to encourage a participative discussions and classroom delivery. Although the responses particularly on cultural dimension "individualism/collectivism", the responses are inclined on the strong evidence of individualism among the students but because of the many classroom instructions that give the students' opportunities to work in groups, the student's feedback have neutralized the responses. Neutral responses were also generated on uncertainty avoidance although one of the statements revealed an "agree" feedback that emphasized the responsibility and roles of the teachers in ensuring that the delivery of instruction is clear and comprehensible at the students' level of understanding.

Experienced from the researchers supported the students' feedback that teachers should established a structured learning approaches and structured materials used for teaching for students to follow. This finding is consistent with various studies that affirmed the outcome wherein, in a teacher-centered education the emphasis is built on high uncertainty avoidance and high power distance (Eringa & Huei-Ling, 2009; Jippes & Majoor, 2008; Tempelaar et al., 2012). However; in terms of masculinity/femininity, there seems not much evidence of cultural impacts considering that they are female and the students are given equal opportunities to learn. Finally, the students although they expressed neutral responses on long-term objectives dimension consider this as the highest priority over other dimensions with the highest neutral average rating of (3.33). This clearly implies that, students are more concerned of their future and realized how important to finish degree for future successes, status and living conditions.

Further discussions can be drawn based on the results of correlation and regression analysis. There is strong evidence that Hofstede's cultural dimension relates to the students' academic

performance. This implies that in Al-Zahra College for Women, culture has significant impact on how the students perform academically apart from other factors and variables. However, the findings also clearly emphasized that, not all of the cultural dimensions significantly impacts the students' academic performance. Specifically, three variables have significant relationship to students' academic performance namely: individualism/collectivism; uncertainty avoidance; and, long-term objectives while the other two have no relationship. However; these may not elicit the same findings when applied to other Colleges in Oman. This may mean that, to the students of Al-Zahra College for Women taking into consideration the favorable results on individualism/collectivism, uncertainty avoidance, and long-term objectives will also help the teachers in devising ways and means to improve and make the class instruction and delivery more effective thereby bridging the gap in the teaching and learning environment.

In summary, findings revealed that there is significant relationship between the Hofstede's cultural dimension and students' academic performance that supports the first hypothesis (H1). Further, H2 is rejected because there is no significant relationship between power distance and academic performance; H3 is supported reflecting the significant positive relationship between individualism/collectivism and academic performance; negative significant relationship between uncertainty avoidance and academic performance thereby affirming H4; rejecting H5 and supporting H6 that long-term objectives and academic performance is negatively correlated.

## 6. Conclusions and Recommendations

The findings in this study lead to the conclusion that can be drawn. The Hofstede's cultural dimension has proved to be a significant determining factor of students' academic performance in Al-Zahra College for Women. Specifically; based on the responses three variables significantly impacts the students' performance that includes individualism/collectivism, uncertainty avoidance, and long-term objectives. From the findings, this study has found out that though in Arab countries collectivism is prevalent, the student responses did not show similar observations as students strive for self-expression, individual achievement, and independence. This has affirmed the result of the hypothesis that the increase in individualism helps increase students' academic performance. Recognition and appreciation from parents and friends of student achievement also adds value to the increase in academic performance. Conversely, the negative relationship between uncertainty avoidance and academic performance were supported by the responses that students are becoming interested on open-mindedness that leads to the student-centered approach of teaching and learning thus, realizing that increasing academic performance can be achieved by lowering uncertainty avoidance. However, this views the fact that in the

students' responses on the questionnaire, higher emphasis was placed on the teacher's role in transforming towards teaching and learning in the class.

Interestingly, the study also found that long-term objectives negatively correlates academic performance thus, contradicting the findings that hardwork and persistence contribute to academic success and achievement (Wang, 2007). Although the orientation of the students is inclined towards future objectives or long-term objective, the results hypothetically provide otherwise; that long-term objective likely contributes decrease in students' academic performance in the context of Al-Zahra College for Women. These findings lead to suggestions and recommendations of the study. Firstly, particular consideration of the academic administration will be on transitioning from the teacher-centered instruction into student-centered learning wherein students can freely express themselves and develop self-independence. Secondly, enrich curriculum integrating culture in the instruction outlining open-mindedness relative to student-centered learning whereby introducing critical thinking aided assessments are commendable such as broad assignments, open-ended assessments and case studies, flexible time-table based assignments, and others thus, lessen the highly structured lecturing approach. Thirdly, introduce the concept of short-term orientation driven by creative and innovative thinking that will potentially enhance students' learning by integrating into the course syllabus and in classroom instruction.

In totality, studies confirmed that culture plays a big role in determining academic performance although the researchers have not identified studies that specifically prove which of the Hofstede's cultural dimension significantly impacts the students' academic performance. It can be concluded from the above findings that culture should be taken due consideration by the management of Al-Zahra College for Women and the respective academic heads in designing and devising classroom instructions because it has association with the manner how the students perform academically and facilitates good teaching and learning environment. The integration of culture is by far very important in learning process hence, it cannot be ignored. Further researchers are encouraged to validate these findings and more variables can be included as appropriate to expand the outcomes.

However; the result of this study is subject to the following limitations: its scope is only in Al-Zahra College for Women and assessment is through the use of Hofstede's cultural dimension which can be considered as one of the cultural factors. Secondly, the majority of the students are Omani citizens and thus, the basis of comparison is limited when the study will be dealing on students with different nationalities. And, other factors such as demographic and socio-economic

factors can be contributory variables to further assess academic performance which were not covered in this study.

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