BUSINESS STUDENTS' PERCEPTION OF ENVIRONMENT SUSTAINABILITY IN GCC UNIVERSITIES

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ABSTRACT

This study is set out to investigate business students' perception of various aspects of environment sustainability in Gulf Co-operation Council (GCC) universities and whether their perception is determined by their personal characteristics. To achieve this objective, 750 questionnaires were distributed to business schools students studying at Kuwait University, Gulf University for Science and Technology (Kuwait), Qatar University, UAE University and King Saud University (Saudi Arabia). 400 questionnaires returned completed, resulting in 53% usable response rate. The results of the questionnaire analyses revealed that the participants program of study as well as special environmental courses that they took at the university are the most important sources of their environment knowledge. The participants believe environment sustainability is achieved by optimizing the use of existing resources in a responsible manner that provides an endless balance. The participants further pointed to measures such as indefinitely conserving resources and living on returning the earth's natural resources instead of consuming them as being very important to protect environment. The participants indicated that environmental problems are made by industrial countries and they have the responsibility to tackle them. They, however, considered environment protection a global issue and ought to be addressed by the United Nations. They ascertain that environment can be protected by tackling air and water pollution, toxic waste and loss of forests and species.

Keywords: Attitudes ; Education ; Environment; Knowledge; Students; GCC.

INTRODUCTION

Students' attitude towards environment and the level of environmental knowledge have received attention in the theoretical and empirical research. The main thrust of the research was to explore students attitude towards environmental issues that they had developed through individual learning, knowledge they acquired through different levels of the education system and through their involvement and task orientation.

Empirical studies documented that students have favourable attitudes toward environment and older students generally displayed more heightened awareness of environmental issues than younger students (Shen & Saijo, 2008; Sidiropoulos et al., 2013). They also showed that female students are more sensitive toward environment than male students (Kose et al., 2011; Ozsoy, 2012; Zyadin et al., 2014). Moreover, they revealed that there is a positive relationship between high household income and high education level with environmental concern (Shen & Saijo, 2008). These findings, however, seem to be questionable in an environment such as the (GCC) countries due to the unique economic, political and cultural characteristics of these countries.

The purpose of this study is to explore business students' perception about various aspects of environment sustainability at GCC universities. The study will also test the

relationship between students' demographic features and their perception of environment sustainability by using the mean scores for the New Ecological Paradigm (NEP). The outcome of this study is expected to benefit both educators and policy makers in developing population awareness about environmental issues. It might also help in identifying which areas of the learning environment need attention and can be used to adjust the curriculum at different educational levels. Given that the role of the education authority is to resume this responsibility, the outcome of the study would assist them in refining their policies, practices and procedures. Policy makers can coordinate the work of the educators with media and other sources to ensure that the information reaches the largest number of the population.

The remainder of this study is organized as follows. In the next section, brief review of related literature and research questions are presented. Data collection and research method are explained in the third section. While the findings are discussed in the fourth section, the conclusion is offered in the last section

LITERATURE REVIEW AND RSEARCH HYPOTHESES

The aim of environmental education is to provide individuals with knowledge and skills in order to raise concern about environment issues (Walickzek & Zajicek, 1999). Education for sustainability (EfS) refers to education that builds knowledge, skills and dispositions for living sustainably (Leihy & Salazar, 2011). According to Pooley and O'Conner (2000), environmental educators are interested in changing environmental attitudes, emotions and beliefs, rather than knowledge of information creating from environmental programs. It is important for environmental education organizations to provide academic institutions with textbook, authors and curriculum guidance on the scientific content of environmental issues (Sanera, 1998). However, there is a need for collaboration between all areas of knowledge in order to preserve and improve environmental conditions (Geli & Filho, 2006).

In empirical literature, several studies have been conducted to examine students' attitude towards various aspects of environmental (see for example, USA: Ostman & Parker, 1987; Scott & Willits, 1994; Davis et al., 2003; Franzen, 2003; Connell & Kozar, 2012; Singapore: Ivy et al., 1998; Asia-Pacific region: Bhandari & Abe, 2000; Indonesia: Sudarmadi et al., 2001; Ma'ruf et al., 2016; Hidayah & Agustin (2017); Lebanon: Makki et al., 2003; Vlaardingerbroek & Taylor, 2007; Turkey: Talay et al., 2003; Erdogan, 2009; Oguz et al., 2010; Kose et al., 2011; Müderrisoglu & Altanlar, 2011; Ozsoy, 2012; Koruoglu et al., 2015; Atav et al., 2015; Yapici et al., 2016; Akman, 2017; Uyaniki, 2017; UK: Holt, 2003. Poland: Grodziéska-Jurczak et al., 2006; China: Shen & Saijo, 2008; Australia: Karol & Mackintosh, 2010; Leihy & Salazar, 2011; Sidiropoulos et al., 2013; Malaysia: Chen & Chai, 2010; Ahmad et al., 2010; Mas'od & Chin, 2014; Jordan: Alazzi, 2013; Zyadin et al., 2014; Ethiopia: Hailu, 2016; Nigeria: Ogunjinmi & Oniya, 2016; Cyprus. Akkor & Gunduz, 2018. The following section offers a brief review of these studies.

Ostman and Parker (1987) studied the impact of education, age, and sources of environmental information such as newspapers and television on people's environmental knowledge, concerns, and behavior. They found that participants' education and newspapers to be the most influential ones. They also found that television programs, in both general and specific environmental information, have some consequences. Scott and Willits (1994) undertaken a survey to explore participants' opinion about ideas contained in the new environmental paradigm (NEP) and behaviours' engaged in that are environmentally protective. They found that although the participants expressed support for the NEP, they are unlikely to engage in activities that contribute to environmental protection. They also

demonstrated that although support for the NEP was predictive of environmental behaviour, the linkage between them was not strong. Davis et al. (2003) tested the benefits and the driving forces for institutions that are integrating sustainability concepts into teaching. They reported a positive significant progress in integrating the concepts of sustainability into teaching. Another study undertaken by Franzen (2003) compared the concern for the natural environment between the citizens of 26 countries that participated in the 2000 International Social Survey Program (ISSP) to explain the differences. He found citizens in wealthier nations express greater concern for global condition of the environment than those in poorer countries. However, he observed that the increase in real GDP between 1993 and 2000 did not lead to a further increase in environmental concern. Connell and Kozar (2012) examined changes in undergraduate student knowledge of sustainability issues relevant to the apparel and textiles industry. They found that pre and post comparisons revealed significant changes in students' knowledge of social and environmental issues relevant to the apparel and textile industry.

Ivy et al. (1998) collected data on the level of environmental knowledge, attitudes and behavior of secondary and junior college students in Singapore. They found that the students gained most of their environmental knowledge from out-of-school sources rather than from general education at school. They also found that the majority of the students gathered most of their environmental information from the printed media such as newspapers and magazines and electronic media such as radio and television. They concluded that general education at school provided students with little environmental information compared with other sources.

Bhandari and Abe (2000) summarized the general trends, patterns and problems of environmental education (EE) in Asian Pacific region. They found that EE is embedded in all forms of education. They demonstrated that the countries of the region are aware of, and interested in, EE. Moreover, although the countries would face economic hardships, they had shown leadership in encouraging EE. They concluded that there is a need to provide incentives to promote and foster EE in the region. Balas et al. (2008) explored the key aspects of transformation of universities towards sustainability and the drivers and barriers in the transformation in seven universities world- wide. They found that the main barrier to be overcome is the lack of incentive structure for promoting changes at the individual level. They observed that a common characteristic for most of the institutions is establishing and supporting networks of expertise within the universities. They concluded that Framework- Level- Actors (FLA) method has proved useful for being used at the level of comparing case- studies through a bird's- eye perspective.

Sudarmadi et al. (2001) examined the perception, knowledge, awareness, and attitude with regard to environmental problems between educated and community groups in Jakarta. They found that the perception, knowledge, awareness, and attitude of educated subjects in regard to regional and global environmental problems are much better than those of subjects in the community group. They concluded that more detailed information on the environment should be provided to literate people by newspapers and other means.

Makki et al. (2003) studied Lebanese secondary school students' environmental knowledge and attitudes. They noticed that the participants have favorable attitudes toward the environment but lacked environmental knowledge. They also found that environmental knowledge was significantly related to parental education level, and to participants' environmental attitude, beliefs, affect, and behavioral commitments. In the same line of research, Vlaardingerbroek and Taylor (2007) examined the environmental knowledge and attitudes of prospective teachers in Lebanon. They found that the Lebanese students lagged behind their Australian counterparts with respect to their knowledge of global environmental issues, and displayed a narrower awareness of national environmental issues.

Talay et al. (2003) surveyed students' knowledge and awareness of environmental issues and their attitude to the environment. They provided evidence that Ankara University students are reasonably aware of environmental issues and problems. Erdogan (2009) adopted the consistency and dimensionality of the New Environmental Paradigm (NEP) scale through assessing the students' environmental worldviews. He found that the NEP orientation is not widely embraced by students. He also found that the NEP scale has more than one dimension and each dimension should be evaluated separately. The researchers concluded that the set of 15 NEP items should be taken cautiously as an internally consistent measuring device in different socio-cultural environments. Oguz et al. (2010) examined the environmental sensitivity and awareness of university students in Turkey. They found that even though students attended many courses on the environmental issues, their environmental awareness and environmentally responsible behaviors are lower than expected. They also found that environmental knowledge does not always influence awareness and behavioral intentions. They recommended a national strategy for environmental education in higher education. Another study conducted by Kose et al. (2011) to explore undergraduate students' attitudes towards environment at the end of the course "Environment, Human, and Society". They found that undergraduate students have positive attitudes toward the environment as regard to their gender and faculty types. They also found that female students are more sensitive toward environment than male students.

Another study conducted by Müderrisoglu and Altanlar (2011) to identify environmental attitudes and environmentally responsible behaviors of the undergraduate students of Abant Ýzzet Baysal University toward environmental issues. They found that students highly support the environmental attitudes and highly participate only in consumerism behaviors. Also, Ozsoy (2012) examined Turkish pre-service science teachers' attitudes toward the environment. He found that pre-service science teachers have a high level of environmental attitudes. He also found that females have more positive attitude towards environment than males. He recommended that gender differences be taken into account in environmental education through all steps of formal education. Also, Koruoglu et al. (2015) used Environmental Attitude Scale (EAS) to examine the students' attitudes towards environment. They found that there are statistically meaningful differences in the environmental attitudes of students for the variables such as gender, grade and educational status of parents. Additionally, Atav et al. (2015) examined students' environmental attitudes within the framework of the NEP. They found that the majority of students agreed with the items in favor of the NEP. They observed that the attitudes of students are closer to eco-centric perspective than anthropocentric perspective. Furthermore, Akman (2017) examined teacher candidates' attitudes, knowledge levels and sensitivities towards environmental problem. He found that teacher candidates attending Classroom Teacher Education and Social Studies Teacher Education are more concerned with environmental problems compared to the teacher candidates attending Mathematics Teacher Education and Turkish Language Teacher Education.

Holt (2003) studied the role and impact of the business school curriculum in shaping environmental education at Middlesex University. He looked into the practice of environmental education in the Business School. The researcher demonstrated how successful the Business School has been in reinforcing students' environmental values, knowledge and action, as evidenced by the longitudinal work. Stern et al. (1993) attempted to develop a social-psychological model to test the proposition that environmentalism represents a new way of thinking. They demonstrated that action in support of environmental quality may derive from any of three value orientations namely egoistic, social-altruistic, or biospheric, and that gender may be implicated in the relation between these orientations and

behavior. They found that women have stronger beliefs than men about consequences for self, others, and the biosphere, but there is no gender difference in the strength of value orientations.

Grodziéska-Jurczak et al. (2006) examined attitude towards environment and the level of environmental knowledge among pre-school children and their parents in Poland. They found that the six-year-old were familiar with basic notions and could identify improper behavior with regard to environment. They also found that parents showed favorable environmental attitude, but were not always willing to change their habits or make sacrifices for environmental conservation. Another study conducted by McMillan et al. (2004) who used interviews and questionnaires to evaluate the impact of an introductory university-level environmental studies class on the environmental values of students. They found that the students have strong environmental values after taking the class, becoming more ecocentric, and less homocentric. Moreover, Bradley et al. (1999) tested high school students' environmental knowledge and attitudes before and after exposure to a 10-day environmental science course. They found that there are significant differences in both students' knowledge and attitudes after exposure. They observed that student' environmental knowledge scores increased by 22% after they completed the environmental science course.

Shen and Saijo (2008) used factor analysis to test the relationship between socio-demographic characteristics and individual environmental concerns. They found that there is a positive relationship between high household income and high education level with environmental concern. They also found that the older generation is more concerned about the environment than the younger population and women in Shanghai seem less concerned about the environment than men. They provided evidence that other socio-demographic characteristics such as employment status and household size are irrelevant to environmental concern. Tarrant and Cordell (1997) revealed that the environmental concern, new environmental paradigm, and awareness of consequences scales are associated most strongly with behaviour.

Chen and Chai (2010) compared gender attitude towards the environment and green products. They found insignificant differences between gender in their environmental attitude and attitude towards green products. They also reported that consumer attitudes on the government's role and their personal norm towards the environment contributed significantly to their attitude on green product. Ahmad et al. (2010) examined the level of the students' level of awareness on environmental related issues, environmental related terminologies and concepts, and the sources of information for environmental knowledge. They found that in general respondent's knowledge about the environmental issues was high. However, the participants were still unfamiliar with certain environmental terms and concepts such as biodegradability and carbon monoxide. They also found a positive relationship between participants' environmental knowledge and their perceived pro-environmentally behaviour. Another study performed by Mas'od and Chin (2014) to explore whether green consumer profiles (socio-demographics, psychographic and religiosity) have a role to play in profiling green hotel consumers. They recommended that it is important for hoteliers in understanding the green consumer behaviour in order to achieve sustainability performance.

Karol and Mackintosh (2010) studied lack of student engagement in the sustainability agenda. They found that students' philosophical and personal positions on the principles and application of sustainability need to be developed if sustainable design is to become an integral part of their design practice. Leihy and Salazar (2011) examined the state of play of Education for Sustainability (EfS) in Victoria's Universities. They observed that EfS is a vehicle for infusing a central and progressive presence for sustainability within institutions. Furthermore, Sidiropoulos et al. (2013) examined the nature of environmental world views of

international students in order to identify students' underlying environmental attitudes/knowledge. They found that older students generally displayed a more heightened awareness of environmental issues than younger students, regardless of whether they were postgraduate or undergraduate students. They also observed that culture and gender and prior Education for Sustainability (EfS) knowledge, either by way of a seminar or inclusion in the curriculum, significantly impacted students' views. They recommended that an introductory EfS seminar may be an effective orienting/priming mechanism to stimulate student awareness in sustainability Issues.

Alazzi (2013) looked into the attitudes of middle and secondary school students about social studies in Jordan. They found that students at both middle and secondary school valued social studies, while at the same time they did not rate social studies as their most favorite courses. Zyadin et al. (2014) conducted a survey-based study, collecting 260 questionnaires from secondary school teachers in Jordan to investigate their knowledge, perceptions, and attitudes toward renewable energy (RE) development. They found that teachers have limited knowledge of RE and neutral perceptions regarding its use. They also found that male teachers exhibited slightly higher knowledge of RE and female teachers held stronger positive attitudes. They concluded that teachers need personal training regarding RE before it is introduced into school curricula.

As far as the Gulf Co-operation Council (GCC) region is concerned, few studies were undertaken to examine the students' perception of the environment issues (see for example, Kuwait: Khaldi & Khatib, 2014; Saudi Arabia: Abubakar et al., 2016; UAE: Abdel Raman, 2016). The following section reviews in brief these studies.

Khaldi and Khatib (2014) examined students' perception of the learning environment in business education in Kuwait. They found that information on students' perceptions of the classroom learning environment can provide a valuable source of feedback about the teaching performance of tutors and lecturers. They recommended that tutors should be more sensitive to the learning needs of students so that they become more effective in delivering business studies courses through changing the classroom learning environment.

Abubakar et al. (2016) examined the students' assessment of campus sustainability components at the University of Dammam in Saudi Arabia. They found that even though students indicate a great deal of awareness and concern about campus environmental sustainability, they lack interest and willingness to participate in initiatives towards achieving sustainability. They highlighted the roles of incorporating sustainability into campus operations, and training university students in promoting environmental sustainability in Saudi Arabia and the Middle East.

Abdel Raman (2016) examined the attitudes and behavior of Ajman University of Science and Technology (AUST) students towards the environment according to their gender and college. She found that there are wide differences in the environmental attitudes and behaviors between the undergraduate students enrolled in environmental sciences course and others who did not study the course yet. The researcher also found that students of Dentistry and Pharmacy colleges have higher positive environmental attitudes and behaviors than students of Law and Information Technology or Mass Communication and Humanities colleges. The researcher concluded that there is need to focus on environmental education in university. It is evident that a limited number of empirical studies have been undertaken to explore the determinants of students' perception of sustainability in the GCC universities. This suggests the need for additional empirical testing. Hence, this study is undertaken to provide answers to the following research questions (Table 1):

	TABLE 1 RESEARCH QUESTIONS	
Research Question 1	What are the main sources of the participants' environment knowledge?
Research Question 2	What's the Participants' perception of the New Ecological Paradigm (NEP) Scale?
Research Question 3	What should be done to sustain environment?
Research Question 4	What are the main Factors that maintain environment sustainability?
Research Question 5	Who should deal with the environment problem?
Research Question 6	What should be done to protect environment?
Research Question 7	What are the participants' characteristics that affect their attitude towards environment?

DATA COLLECTION AND RESEARCH METHODS

A questionnaire survey will be used to gather data on the students' perception towards environmental issues. The questionnaire is an appropriate research tool for this type of research, as it is designed to be used to determine the perception of interest students (Koruoglu et al., 2015). 750 questionnaires were distributed to business students enrolling in Kuwait University, Gulf University for Science and Technology (GUST- Kuwait), Qatar University, UAE University and King Saud University (Saudi Arabia). 400 questionnaires returned completed, resulting in 53% usable response.

The Statistical Package for the Social Sciences (SPSS version 23.0) will be used as computer software to analyze the collected data. The levels of perception are described by using descriptive statistics. To identify participants, characteristics that impact their attitude towards environment, a linear regression will be performed.

RESEARCH FINDINGS

Participants' Background

It is evident from Table 2 that the five GCC universities targeted in this study are fairly represented. The Table also revealed that 52.5% of the participants are females. In addition, the Table 2 shows that the participants in the questionnaire survey represent all the undergraduate levels together with the postgraduate level. Almost 83% of the participants are less than 23 years old and more than 80% are not married. Almost half the participants are specialized in accounting, banking or finance and 85% achieved GPAs between 2.0-3.75. The average household income of almost 74% of the participants is less than USD 50,000; whereas, 20% of the participants indicated that their average annual household income is more than USD 100,000. 71% of the participants revealed that they only lived in their own country. While 12.5% lived in GCC countries and almost 7.5% lived in non-GCC Arab countries and almost 9% lived in Western and other countries.

	TABLE 2 PARTICIPANTS BACKGROUND				
	Frequency	**Valid Percent**		**Frequency**	**Valid Percent**
University			**Academic Level**		
Kuwait	100	25.00	First year	40	10.0
Gulf University for Science and Technology	100	25.00	Second year	50	12.5
Qatar University	100	25.00	Third year	65	16.25
UAE University	50	12.50	Fourth year	120	30.0

King Saud University	50	12.50	Postgraduate	125	31.25
Total	400	100.00	Total	400	100.00
Gender			**Age**		
Male	190	47.50	Less than 20 years	75	18.75
Female	210	52.50	Between 20-23 years	255	63.75
Total	400	100.00	Between 24-27 years	50	12.50
Marital Status			More than 27 years	20	5.00
Not married	335	83.75	Total	400	100.0
Married	65	16.25	**General Point Average (GPA)**		
Total	400	100.00	less than 2.0	45	11.25
Major			Between 2.0-2.66	175	43.75
Accounting	100	25.00	Between 2.67-3.75	150	37.50
Economics	10	2.50	More than 3.75	30	7.50
Management	35	8.75	Total	400	100.00
Marketing	45	11.25	**Country/Countries other than your home country (if any) you have lived for the longest period of your life**		
Finance and Banking	190	47.50	Only stayed in my country	285	71.25
Other	20	5.00	Lived in a GCC country	50	12.50
Total	400	100.00	Lived in an Arab none GCC country	30	7.50
Average Annual Household Income (USD)			Other Western countries	25	6.25
Less than 25,000	175	43.75	Other countries	10	2.50
Between 25,001-50,000	120	30.00	Total	400	100.00
Between 50,001-75,000	20	5.00	**Period of time lived in country/ countries other than you home country**		
Between 75,001-100,000	5	1.25	Less than one year	135	33.75
More than 100,000	80	20.00	1- 4 years	170	42.50
Total	400	100.00	5- 10 years	55	13.75
			More than 10 years	40	10.00
			Total	400	100.00

Sources of the Participants' Environment Knowledge

It can be observed from Table 3 that the participants academic program of study together with special environmental courses at the university are the most important source of the participants environment knowledge as reflected by the means and the medians. The relatively low standard deviation reflects a high level of agreement among the participants. The participants also revealed that everyday life and general education at the university are the second important sources of their environment knowledge. The participants, however, showed that listening/watching environmental programs on radio/television and talking with parents as being the least important source of environment knowledge. What also attracts attention in Table 3 that a significant proportion of the participants revealed that the internet and social media are important of main source of their environment knowledge. This result is partially in line with Ostman and Parker (1987) who found education to be the most important source of environment knowledge. It is also in line with Davis et al. (2003) who found positive significant progress in integrating the concepts of sustainability into teaching. However, this result is inconsistent with Ivy et al. (1998) who noticed that students obtained most of their environmental knowledge from out-of-school sources. It is also incomparable with Makki et al. (2003) who found that environmental knowledge significantly related to parental education level.

TABLE 3
STUDENTS SOURCES OF ENVIRONMENT KNOWLEDGE

	Mean	Median	Std. Deviation	Rank
General education at the University	3.38	4.00	1.08	4
Special environmental courses at the University	3.83	4.00	0.85	2
Attending talks and exhibitions organised by other organisations	3.16	3.00	1.06	6
Listening/ watching environmental programs in radio and television	2.58	2.50	0.95	9
Reading newspapers, magazines and books	2.98	3.00	1.03	7
Talking with parents	2.65	3.00	0.90	8
Internet	3.30	3.00	1.05	5
Your program of study	3.85	4.00	0.78	1
Your everyday life	3.41	3.00	0.86	3

Participants' Perception of the New Ecological Paradigm (NEP) Scale

The participants were asked to express their level of agreement with the New Ecological Paradigm (NEP) Scale. The result of their answers is reported in Table 4. The Table 4 shows that the participants attached the highest level of agreement to proposals such as the "*the balance of nature is very delicate and easily upset*, *earth has plenty of natural resources we just need to learn how to develop them*, *the balance of nature is strong enough to cope with the impacts of modern industrial nations* and *humans have the right to modify the natural environment to suit their needs*". However, the participants attached lower levels of agreement to proposals such as "*when humans interfere with nature it often produces disastrous consequences*, *plants and animals have as much right as humans to exist*, *human ingenuity will ensure that we do not make the Earth unlivable* and *humans will eventually learn enough about how nature works to be able to control it*" received the lowest level of agreement among the participants. This result is consistent with Scott and Willits (1994) who found that students expressed some support for the NEP. It also in support of Atav et al. (2015) who found the majority of students agreed with the items in favor of the NEP. It is also in line with results achieved by Erdogan (2009) who found that the NEP orientation is not widely embraced by students.

TABLE 4
PARTICIPANTS' PERCEPTION OF THE NEW ECOLOGICAL PARADIGM (NEP) SCALE

	Mean	Median	Std. Deviation
We are approaching the limit of the number of people the Earth can support	3.30	3.50	1.26
Humans have the right to modify the natural environment to suit their needs.	3.24	3.00	1.17
When humans interfere with nature it often produces disastrous consequences.	2.61	2.00	0.90
Human ingenuity will ensure that we do not make the Earth unlivable	2.79	3.00	1.15
Humans are seriously abusing the environment	3.06	3.00	1.07
The Earth has plenty of natural resources if we just learn how to develop them	3.58	4.00	1.04
Plants and animals have as much right as humans to exist	2.79	3.00	1.08
The balance of nature is strong enough to cope with the impacts of modern industrial nations	3.45	3.50	1.11
Despite our special abilities, humans are still subject to the laws of nature	3.18	3.00	1.24

The so called "ecological crisis" facing humankind has been greatly exaggerated	3.24	3.00	1.10
The Earth is like a spaceship with very limited room and resources	3.14	3.00	1.30
Humans were meant to rule over the rest of nature	2.95	3.00	1.06
The balance of nature is very delicate and easily upset	3.76	4.00	0.93
Humans will eventually learn enough about how nature works to be able to control it	2.91	3.00	1.27
If things continue on their present course, we will soon experience a major ecological catastrophe	3.11	3.00	1.11

What should be done to Sustain Environment?

The participants have been given a set of measures that can be employed to sustain environment and they were asked to rank them according to their importance, where 6 indicates that the measure is viewed as being the most important and 1 the least important. The analysis of their answers is reported in Table 5. It is evident from the Table 5 that "*optimizing the use of existing resources in a responsible manner that provides an endless balance*" ranked by the participants as being the most important. The participants further pointed to measures such as "*indefinitely conserving resources* and *living on "returning" the earth's natural resources instead of consuming them as being very important*" to protect environment. However, the participants assigned the lowest level of importance to measures such as "*maintaining a certain level of production indefinitely* and *supporting a specified level of economic production for an indefinite period*".

TABLE 5
WHAT SHOULD BE DONE TO ENSURE ENVIRONMENT SUSTAINABILITY

	Mean	Median	Std. Deviation	Rank
Optimizing the use of existing resources in a responsible manner provides an endless balance	5.43	6.00	0.72	1
Supporting a specified level of economic production for an indefinite period	2.01	2.00	0.81	5
Ensuring the present and future value of natural resources	2.07	2.00	0.78	4
Maintaining a certain level of production indefinitely	1.93	2.00	0.86	6
Indefinitely conserving resources	4.83	5.00	0.80	2
Living on "returning" the earth's natural resources instead of consuming them	4.74	5.00	0.76	3

Factors Maintaining Environment Sustainability

The participants were asked to express to what extent they agree/disagree with the several factors that will contribute to environment sustainability. It is obvious from Table 6 that the vast majority of the participants either agreed or strongly agreed with all factors listed in the questionnaire as reflected by the reported means and medians. The relatively low reported standard deviations indicate little differences in the participants' answers.

TABLE 6
IMPORTANT FACTORS IN ENVIRONMENT SUSTAINABILITY

	Mean	Median	Std. Deviation	Rank
Program of study	4.62	5.00	0.49	2
Profession	4.25	4.00	0.56	3
Daily life	4.75	5.00	0.44	1

Who should Deal with the Environment Problem?

The participants were further asked to unveil their level of agreement about who should deal with the environment problem. Table 7 discloses that the participants are either agreed or strongly agreed with the proposal that environmental problems are made by industrial countries and they have the responsibility to tackle them. They also expressed a high level of agreement with the proposal that environment protection is a global issue and ought to be addressed by the United Nations.

TABLE 7 WHO SHOULD DEAL WITH THE ENVIRONMENT PROBLEM?			
	Mean	Median	Std. Deviation
Environmental problems are made by industrial countries and they have the responsibility to tackle them.	3.97	4.00	1.08
Environment protection is a global issue and ought to be addressed by the United Nations	3.95	4.00	1.06

What should be done to protect environment?

Table 8 reports the participants opinion about what should be done to protect environment. The participants gave priority to tackling air and water pollution, tackling toxic waste and tackling loss of forests and species. The participants also believe that it is important to tackle the ozone layer depletion and tackling climate change to protect environment.

TABLE 8 WHO SHOULD DEAL WITH THE ENVIRONMENT PROBLEM?			
	Mean	Median	Std. Deviation
Tackling climate change	3.75	4.00	1.09
Tackling ozone layer depletion	3.93	4.00	0.94
Tackling toxic waste	4.34	5.00	0.84
Tackling loss of forests and species	4.24	4.00	0.88
Tackling air and water pollution	4.43	5.00	0.81

Participants' Characteristics that Affect Their Attitudes towards Environment

Participants' attitude towards different aspects of environment were combined together and used as a dependent variable and regressed against their characteristics. Participants characteristics estimated in the regression model are: gender, age, academic achievement (GPA), income, whether the respondent's spends time outside the home country and the number of years the participants spent outside their own countries. Table 9 reports the result of the regression model estimation. It is evident from the Table 9 that participants' gender, GPA, income and whether they lived in country/countries outside their own countries have significant effect on the participants' attitudes.

TABLE 9 RESULTS OF REGRESSION ANALYSIS			
	F= 20.3	F Sign.= 0.000	Adjusted R^2 = 0.23
Variables	Beta	T	Sig.	VIF
Constant		33.209	0.000	
Gender	0.204	4.484	0.000	1.065

Age	0.024	0.503	0.615	1.163
GPA	0.130	2.832	0.005	1.077
Income	0.119	2.505	0.013	1.167
The respondent lived in country/ countries other than the home country	-0.400	-7.861	0.000	1.331
Number of years respondent lived in country/ countries other than the home country	-0.062	-1.225	0.221	1.300

The outcome of the regression analysis is in support of Stern et al. (1993), Shen and Saijo (2008), Chen and Chai, (2010), Kose et al. (2011), Ozsoy (2012), Zyadin et al. (2014) and Koruoglu et al. (2015) who all reported significant relationship between gender and student perception about different aspects of environment sustainability.The result of the regression analysis is also in line with Koruoglu et al. (2015) who reported statistically meaningful differences in the environmental attitudes of students due to their academic achievement. In addition, the result is comparable with results achieved by Franzen (2003) who found high per capita income nations expressed more concern for environment than those with low per capita income and Shen and Saijo (2008) who reported a positive relationship between high household income and environmental concern. However, the outcome of the regression analysis was inconsistent with results achieved by Shen and Saijo (2008) and Sidiropoulos et al. (2013) who noticed significant association between students' awareness of environmental issues and their age.

CONCLUSION

The aim of this study is to explore the perception of business students in the Gulf Cooperation Countries (GCC) universities towards different aspects of environment sustainability and whether their perception is influenced by their personal characteristics. To achieve this aim, 750 questionnaires were distributed to business schools students enrolled at Kuwait University, Gulf University for Science and Technology (Kuwait), Qatar University, UAE University and King Saud University (Saudi Arabia). 400 questionnaires returned completed, resulting in 53% usable response rate. The results of the questionnaire analyses disclosed that the most important sources of their environment knowledge are the program of their study as well as special environmental courses that they took at the university. The participants also disclosed that although the balance of nature is very delicate and can easily upset, but it is strong enough to cope with the impact of modern industrial nations and the earth has plenty of natural resources if we just learn how to develop them. They further indicated that humans have the right to modify the natural environment to suit their needs.

The participants believe that environment sustainability is achieved by optimizing the use of existing resources in a responsible manner that provides an endless balance ranked by the participants as being the most important. The participants further pointed to measures such as indefinitely conserving resources and living on "returning" the earth's natural resources instead of consuming them as being very important to protect environment.

The participants pointed out that what they learn from daily life, programs of their studies and their profession are important to sustain environment. They stressed that environmental problems are made by industrial countries and they have the responsibility to tackle them and protecting environment is a global issue ought to be addressed by the United Nations. They also ascertain that environment can be protected by tackling air and water pollution, tackling toxic waste and tackling loss of forests and species. The participants also believe that it is important to tackle the ozone layer depletion and climate change to protect environment.

Participants' gender, age academic achievement (GPA), income, and whether or not they spend time outside their own countries are more likely to affect their perception of environment sustainability.

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