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## Examining the environmental attitudes of the employees in Aghajari oil and gas exploitation company

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### Abstract

Evaluating the behavior and performance of people for the sake of accessing the basic principles of sustainable living are an effective step to protect the environment. The present study aimed to examine environmental attitudes of the employees in Aghajary Oil and Gas Exploitation Company. For this purpose, a questionnaire was prepared containing 20 demographic questions and 19 questions related to examining environmental attitude. The questionnaire was completed by 350 employees of the company. Data obtained from the questionnaires was analyzed using SPSS. The results showed that environmental attitude is at high positive level (mean=84.92). The effect of individual factors such as gender, age, education and work experience on environmental attitudes of the employees was also examined. The results showed no significant difference between individual factors and environmental attitudes of the employees.

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## Introduction

The academics around the world claim that the environment is degraded and threatened by humans. They predict that if this situation persisted, deadly ordeal for the earth and its creatures such as humans will prevail eventually. Major cause of environmental degradation is human beings. Nowadays, the effect of environmental factors on human resources has globalized (Zehtab Yazdi, 2010).

Reforming the environmental crisis depends on correct human teachings and changes in human attitudes, understanding and knowledge about both their fate and the surrounding environment (Taei, 2011).

The students' attitudes toward the environment were investigated. The results showed that their attitudes were moderate to high in terms of power of environmental attitude effectiveness in behavior. The students' positive attitude is inclined to environment-oriented thinking (Moradi, 2014).

According to literature, the cause of environmental alteration and destruction lie in ignoring or not paying attention to the environment due to lack of scientific and professional training, human selfishness and negligence and lack of protection and support of values and customs of the past (Moharam Nejad and Heidari, 2006). In fact, lack of awareness of environmental issues is one of the major causes of environmental degradation and loss of environmental resources in most parts of the world. If human knowledge on environmental issues, human close relationship with environment and their significant role in environmental protection was not promoted, the environment would no longer be protected and improved (Saduq, 2006).

Salehi and Pazuki (2014) showed that urban students had more favorable environmental attitudes compared to rural students. Environmental attitudes and behaviors of students were not significantly different according to gender. There was a poor

relationship between environmental attitudes and performance of the students. Moreover, environmental attitudes and behaviors of students were significantly different based on informational sources and individual notion on familial environmental performance.

One of the earliest and most effective measures to protect the environment is evaluating human behavior and performance in order to access basic principles of sustainable living. This is because proper utilization of resources and preventing depletion of natural resources lead to sustainable living (Moharam Nejad, 2003). Employees of large companies and factories are not exempt from this fact. In most countries, the government pressures the occupations and industries to pay attention to environmental issues in their policies and activities. Unfortunately, environmental aspects are often marginalized in developing countries (Ngowi, 2001).

The present study aimed to examine environmental attitudes of the employees in Aghajary Oil and Gas Exploitation Company. For this purpose, a questionnaire was prepared containing 20 demographic questions and 19 questions related to examining environmental attitude.

## Material and methods

### *Study area*

The study was conducted in Aghajari Oil and Gas Exploitation Company. The statistical population consisted of 3750 employees in the company. The sample size was determined as 350 subjects using Cochran formula with random sampling method.

### *Methods*

The required data was collected using a researcher-made questionnaire with 39 questions consisting of 20 demographic questions and 19 questions on environmental attitudes in 5-point Likert scale as shown in Table 1. Reliability of the questionnaire was determined as 78% using Cronbach alpha.

**Table 1.** Classifying and scoring environmental attitudes.

Level	Score
Very negative	0-20
Negative	20-40
Average	40-60
Positive	60-80
Very positive	80-100

### Results and discussions

Conceptually, environmental attitude refers to a set of individual emotions, desires, opinions and judgments to an environmental phenomenon or event in life (Salehi and Imamo Gholi, 2012). In other words, environmental attitude represents a changeless combination of motivational, emotional, perceptual and cognitive processes about environmental aspects as well as individual overall evaluation of various aspects of the environment (Krech and Crutchfield, 1948).

Yavari Kharat *et al.* (2013) showed that high level of environmental awareness is associated with above 18 years old students whose fathers have bachelor degree. These students more enthusiastically protect the environment. In fact, environmental awareness increases with age. Finally, parental education is effective in high school students' awareness and sensitivity to importance of observing principles of environmental protection.

Rostami (2010) showed a significant relationship between independent variables of education, Grade Point Average (GPA), parental education, family members and dependent variables of environmental knowledge and attitudes. On the other hand, no significant relationship was found between familial income and environmental awareness and attitude. In addition, a significant and positive relationship was found between level of environmental awareness and environmental attitude.

Bozdi *et al.* (2012) examined the strategies of environmental education in a Coal Industry in

Romania. The results showed the significant role of environmental education centers in increasing environmental awareness and public participation in decision-making on environmental issues and sustainable development.

Molina *et al.* (2013) conducted a study titled as "environmental knowledge and environmental factors affecting the behaviors of environmentalists, comparing the university students in advanced and developing countries". They conducted a study among university students living countries with different economic levels (United States of America, Spain, Mexico and Brazil). They concluded that formal and informal education resources, gender, motivation and attitudes affect the behaviors of environmentalists.

Aghajary Oil and Gas Operating Company is one of the five operating companies affiliated to National Iranian South Oil Company. This company undertakes production, processing and transportation of oil and gas with respect to reservoirs conservation principles in terms of continuous activities of 45 operating units such as 8 oilfields (Aghajary, Crenj, Prenj, Parsi, Ramshir, Rag Sefid 1, Pazenan 1 and Maroon) and activities of 12 operating units including 8 gas and LPG plants, 18 compressor and gas stations and 4 desalination units. This company produces 25 percent of oil-rich regions in south (Aghajari Oil and Gas Exploitation Company website, 2014).

Environmental attitudes and behaviors of students were not significantly different according to gender. There was a poor relationship between environmental attitudes and performance of the students. Moreover, environmental attitudes and behaviors of students were significantly different based on informational sources and individual notion on familial environmental performance.

One of the earliest and most effective measures to protect the environment is evaluating human behavior and performance in order to access basic principles of sustainable living. This is because proper

utilization of resources and preventing depletion of natural resources lead to sustainable living (Moharam Nejad, 2003).

Table 2 describes the demographic indices of the subjects in terms of age, gender, education, and work experience. As observed in this table, 84% of the subjects were male while 42% were between 25 and 35 years old, 43% had diploma and 48% had 5 to 10 years of work experience.

As shown in the above table, 82% and 12% of the employees had respectively very positive and positive public and professional attitudes.

High environmental attitude positively indicates a favorable context for increasing environmental awareness of the employees. If positive attitude towards the environment reinforces awareness and directs the attitudes, positive environmental behaviors can be fostered among the employees, which is the ultimate goal of environmental education.

According to Levin and t-test results in relation to gender, no significant difference was found between environmental attitudes of male and female employees.

Mean environmental score in females was estimated 83.33 while mean environmental score in males was estimated as 85.20. Both scores were categorized as very positive (80-100).

Mean environmental scores of the employees in terms of different age groups from less than 25 years to

more than 45 years were respectively equal to 81.25, 85.02, 85.23 and 86.03. These scores were categorized as very positive (80-100).

Despite lack of a significant relationship between environmental attitudes in different age groups, a certain and direct trend existed between environmental attitude and increased age. This may be due to gaining experience in the workplace and direct exposure to various types of pollutants from related processes and significant environmental degradation over time. These findings are in line with those obtained by Nikbakht (2012).

Mean scores of environmental attitudes of the employees in terms of education from undergraduate to bachelor and higher than bachelor were respectively as 87.76, 84.86, 85.41 and 84.63. These scores were categorized as very positive. Despite lack of a significant relationship between environmental attitudes of employees and different education, environmental attitudes of the workers with a diploma were a little more than others.

Mean scores of environmental attitudes of the employees in Aghajari Oil and Gas Exploitation Company in terms of work experience from less than 5 years to more than 15 years were respectively as 84.29, 85.2, 84.83 and 85.98. These scores were categorized as very positive. In addition to lack of existence of a significant relationship between work experience and environmental attitude, a certain trend between environmental attitudes of employees and their work experience was not found. Nikbakht (2012) also found similar results.

**Table 2.** Demographic characteristics of the sample.

Index	Category	Frequency	Percentage	Sum	Percentage
Gender	Female	56	16	350	100
	Male	294	84		
Age	Below 25	29	8	350	100
	25-35	146	42		
	35-45	120	34		
	Above 45	55	16		

Index	Category	Frequency	Percentage	Sum	Percentage
Education	Lower than diploma	53	15	350	100
	Diploma	149	43		
	Undergraduate	85	24		
	Bachelor and higher	63	18		
Work experience	Below 5	45	13	350	100
	5-10	168	48		
	10-15	27	8		
	Above 15	110	31		

Table 3 shows environmental attitudes of employees of Aghajari Oil and Gas Exploitation Company at 5 levels of very positive, positive, moderate, negative or very negative.

**Table 3.** Public and professional attitudes of the subjects on environmental issues.

Attitude	Very positive		Positive		Moderate		Negative		Very negative	
	Freq- uency	Perce- ntage	Freq- uency	Perce- ntage	Freq- uency	Perce- ntage	Freq- uency	Perce- ntage	Freq- uency	Perce- ntage
Public and professional attitude	290	82	60	18	-	-	-	-	-	-

Independent t-test results relevant to comparison of environmental attitudes of the employees in terms of gender are shown in Table 4.

**Table 4.** Independent t-test results relevant to comparison of environmental attitudes of the employees in terms of gender.

Environmental attitude	Levin's test for equality of variances				t-test for equality of means				
	F	Signifi- cance	T	Degree of freedom	Signifi- cance	Mean difference	Mean error difference	95% confidence interval	
								Low	High
Hypothesis of equality of variances	1.25	0.269	-0.764	348	0.449	-1.87	2.44	-6.83	3.086
Hypothesis of inequality of variances			-1.08	70.80	0.300	-1.87	1.72	-5.66	1.92

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