

## Discriminant analysis for valuing voluntary work among university youth in the United Arab Emirates

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**Abstract:** This study aimed at identifying the extent to which university youth value voluntary work by using discriminant analysis to compare two groups of people who value and who don't value voluntary work according to a number of variables, referred to as discrimination variables. The study sample consisted of 250 male and female students from social departments in some universities in the United Arab Emirates, where an electronic questionnaire was distributed to the sample individuals. The results revealed that most male and female university students generally value voluntary work, and that there was a significant difference between the study groups in most independent variables, except for the variable of monthly income of the youth or their families. Discrimination variables accounted for 44.6% of variance between the two groups, with Wilks' Lambda ( $\lambda$ ) = 0.554. The percentage of the right classification of those who value and who don't value voluntary work was 88%. The results of (Tau) value revealed that the respondents with positive attitudes towards voluntary work who have a good social and health status, good educational level, a younger age, higher affiliation and citizenship, good economic status, and belong to larger families agree with the opinion stating that the university youth in the United Arab Emirates value voluntary work with a percentage of 76%. The study concluded with a number of recommendations.

**Keywords:** Discriminant analysis, United Arab Emirates, University youth, Voluntary work value.

### 1. Introduction

Voluntary activities are considered the basis for the sustainability of private organizations. Sider suggested that volunteering refers to the efforts and services offered by people for free with the aim of participating in the implementation of certain services. Volunteering refers to the efforts exerted by people in order to contribute to advocating for the efforts of social organizations that aim to enhance the community's well-being. Indeed, volunteering represents the human efforts that are made by community members, either individually or collectively, based on self-motivation. Also, volunteers do those efforts for nothing, where the main objective is to take the responsibility in order to satisfy the community needs. Moreover, volunteering does not require a previous preparation; it depends on the volunteer's previous experiences. Generally, voluntary activities include direct and indirect assistance, in addition to the volunteers' participation in citing the policy of voluntary institutions, engaging in the activities of the different committees, and performing the organizational and administrative tasks, such as conducting studies that show the community's response to the institution's programs, conducting survey studies about the community's needs, identifying the causes of social problems, and establishing cooperative relationships between institutions and the surrounding community. Previous studies referred to some factors that affect voluntary work, such as the volunteer's age and educational level. Those studies confirmed the necessity of paying more attention to the volunteers aged (18-35) years old and the necessity of promoting their educational level, particularly higher educational qualifications. Several

studies also recommended the necessity of focusing on the youth volunteers, particularly in the developing countries [1]. The youth are those whose age range is between (18-24) years old, where this age category represents a transitional stage to motherhood and manhood. During this period, the individual's needs increase, leading the youth to adopt adult methods to carry out their daily tasks. Accordingly, the emergence of the term "youth" as a concept refers to a realistic variable relating to two domains: the effectiveness of this group, considering them as the basic element in the social structure, and the nature of the cultural status experienced by the global system [2].

The increased interest in the issue of volunteering in the UAE is attributed to several factors, including the fact that the UAE is a relatively modern state that is still new to institutional work and that its population is not too large. Lutih [3] suggested that the National Center for Statistics revealed that the population of the UAE in (2010) was (8.264) million people, whereas the number of the Emirati citizens was only (947.9) thousand, with (479.1) thousand males, and (468.8) thousand females. The Center suggested that (53%) of the population in the (UAE) are working, (95.8%) are within the working age range, and (4.2%) are unemployed. However, the percentage of the unemployed among citizens is relatively high as compared to expatriate population, with a percentage of (14%) among citizens in comparison with (3%) among expatriates, knowing that (85%) of the citizens work in the public sector. The pre-mentioned figures showed that the state needs the efforts of all its population either males or females in the process of development by engaging in various professions or in voluntary work.

### 1.1. The Study Problem

The study problem arises from the fact that paid work invariably attracts individuals to participate. However, the lack of financial incentives could make it more difficult to prompt individuals to do voluntary work, despite its importance and the community's need for it. This context received more attention by researchers, which, in turn, motivated the authors to conduct this study, which mainly aimed to investigate the extent to which the value of voluntary work exists among the youth the possible causes of not participating in voluntary work, and the factors that may contribute to motivating the youth to participate in voluntary work. In this vein, the study used discriminant analysis to explore the effects of age, number of family members, monthly income of the youth and their families, the youth's health status, educational status and economic status, affiliation and citizenship, as well as the youth's marital status and attitudes towards volunteering. Discriminant analysis is based on using classification and prediction in the domains where the dependent variable is qualitative, with two or more categories. Using this method, we should first identify the categories the researcher wants to classify, like voluntary work valuation or non-valuation, and then choose the independent variables for analysis to evaluate the unique characteristics of each group. Hence, we can formulate the following questions that will be answered based on the results of discriminant analysis, as follows: What are the factors related to valuing voluntary work among university youth in the United Arab Emirates? What are the determinant factors in valuing voluntary work among university youth in the United Arab Emirates? How can we predict the opinions of university youth who value and who don't value voluntary work in the United Arab Emirates?

### 1.2. The Study Objectives

The current study mainly aimed to identify the factors that affect university youth's valuation of voluntary work. This main objective can be achieved based on the following sub-objectives:

1. Identifying the factors related to valuing voluntary work among the university youth in the United Arab Emirates.
2. Identifying the factors that determine valuing voluntary work among university youth in the United Arab Emirates.
3. Anticipating the opinions of university youth who value and who don't value voluntary work in the United Arab Emirates.

### 1.3. The Study Importance

#### 1.3.1. The Theoretical Importance

The results of the current study could be viewed as a basis for future studies related to valuing voluntary work in the domain of sociology and social service in particular and at the level of the different university specialties in general. Also, reviewing the published literature in the domain of voluntary work and the university youth's valuation of that, as well as implementing the theories that explain the phenomenon, could enrich the theoretical domain with various interpretation models and direct the future studies towards addressing the beneficial theories in explaining the phenomenon.

#### 1.4. The Practical Importance

The results of the current study agree with Al-Sayid [4] which revealed that there are several negative phenomena witnessed in the Arab communities, particularly the community of the UAE, including the deviance from many social and moral values among the youth as well as adopting some unfamiliar behaviors- such as excessive autonomy, selfishness, intellectual extremism, and the lack of commitment to Islamic religion's values- which, in turn, sounds the alarm concerning taking the necessary measures to educate the youth about the culture of their community and help them select the good features of the new global developments, discharge the negative ones, and uphold the values and traditions that enhance practicing voluntary work in order to promote the manifestations of cooperation and benevolence among the new young generations. Indeed, the stability of nations hinges on the youth's interest in social and human values, which serves as the foundation for the community's prosperity.

#### 1.5. Procedural Definitions

Valuing voluntary work refers to the extent to which university youth in the United Arab Emirates realize the value and importance of voluntary work. It also refers to a set of bases, principles, and criteria that constitute the youth's belief concerning the nature of their response to the situations that require providing support or assistance in accordance with the community's culture, without receiving any financial or non-financial return for that.

University youth: one of the age groups in the United Arab Emirates' community, whose age ranges between (18- 24) years old, pursue their academic studies in higher education institutions in the UAE.

## 2. Literature Review

### 2.1. Social Exchange Theory

This is one of the theories that can be utilized to explain the value of voluntary work among university youth. This theory assumes that social life depends on the individuals' exchanges for certain things in their lives, and that individuals cannot waive such an exchange, since there is no certain individual or group that has self-sufficiency. Therefore, we can describe exchange as a basic requirement for human life [5].

In a study, Wallas and Alison [6] suggested that several major anthropologists in the 20<sup>th</sup> century confirmed the central role played by exchange in social life. For example, Malinowski asserted that we can distinguish between two issues while studying exchange. The first is the exchange of the gifts, and the second is the change of the objects. The main difference between these two issues is that the process of exchange could be objective by itself while offering the gift, which, in turn, implies social and relational functions. As for the exchange of objects, such an exchange implies an exchange that is based on self-interest. In a similar vein, Homans provided insights into the exchange process, specifically addressing the issue of people's reactions to their actions. For example, if an individual is rewarded, he will have a certain reaction, and may do it frequently. He also addressed the stimulus; for example, if a certain event included rewarding an individual's act in the past, and was accompanied by a certain stimulus, the person would do the same action or an action similar to it if a similar stimulus took place. As for the issue of value, a person will be more likely to take the action if that action implies a high value for him. As for deprivation-satisfaction, whenever a person receives a certain reward in the near past, any additional unit of that reward becomes less valuable. Finally, as for the issue of aggressiveness and acceptance, when a person doesn't receive the expected reward, or when he receives unexpected punishment, he becomes

angry and may exhibit aggressive behavior. However, when the person receives the expected reward, or a higher-than-expected reward, or if he avoids an expected punishment, he will be satisfied, and may do preferable behavior, as the outcomes of this action become more valuable or satisfying to him [6]. Furthermore, Al-Azab and Ammoura [7] suggested that there are a number of assumptions mentioned by Peter Plow, in relation to the exchange theory: a) individuals intend to do the activities from which they gain more, since everyone aims to maximize the returns of social life, b) exchange continues between the various parties as long as there is honesty, i.e., a commitment between each of them to give just as he has taken, c) the exchange process should be fair, where what an individual takes is equal to what he gives in the exchange process, and d) any violation of the rules of exchange gives the disadvantaged party the right to impose a certain sanction on the violating party.

Based on the above-mentioned explanation, this study adopts an explanation that matches the exchange theory, where the university youth's valuation of voluntary work can be explained in the light of the dependency of valuation degree on the return of volunteering a satisfaction that reflects a beneficial dimension and self-interest. In this vein, when volunteering has an appropriate return— from the youth perspective— the degree of valuation increases, and vice versa. In other words, the relationship between the youth and the voluntary work is a beneficial and exchangeable one, where the extent to which volunteering satisfies the youth's needs matches their valuation of its importance, which, in turn, motivates the youth to do more voluntary activities. Indeed, a positive valuation of volunteering among the youth is reflected in their life attitudes, where they become more inclined to perform voluntary activities. This context confirms the necessity of supporting the youth's efforts and providing them with the necessary resources to ensure the sustainability of their voluntary practices.

### 2.2. Stakeholders Theory

This theory, also known as organizational administration and work ethics, focuses on morals and values in managing an organization. Parmer, et al. [8] suggested that institutions have an ethical commitment towards stakeholders that is not only related to increasing their profits, but also to supporting the community, environment and achieving balance between the needs of all the parties, since that is reflected in improving their reputation and promoting their trade mark in a manner that achieves the exchangeable benefits to all the stakeholders. Accordingly, it is necessary to investigate the importance of the youth's valuation of voluntary work, since the youth are considered one of the basic categories that are targeted by voluntary institutions. In this context, the level of the youth's satisfaction is reflected in constructing a positive institutional reputation concerning those institutions.

### 2.3. The Previous Studies

In a study by Othman [9], the researcher aimed at identifying the factors that encourage university youth to participate in voluntary activities and the obstacles that face performing voluntary activities, in addition to identifying the role of social services in promoting the participation in voluntary activities. The study used the social-survey approach based on purposive sampling. The study sample consisted of (254) male and female students from the third and fourth years in the faculty of social service at Helwan University in Egypt. The results showed that there are many obstacles facing students, either related to community, students themselves, or voluntary institutions. The researcher suggested a number of mechanisms to enhance the students' participation in voluntary projects. Similarly, Al-Sayid [4] conducted a descriptive study to cite a future vision related to the way through which the community regulates the role of social values in instilling the culture of voluntary work among university youth.

The study used a sample-based social-survey approach. The study sample consisted of (150) male and female youth enrolled in Ajman University in the UAE. A questionnaire was developed to evaluate the extent to which the social values that the youth believe promote their participation in voluntary activities. The instrument's domains also included a clarification for the obstacles and difficulties that hinder the voluntary efforts, in addition to a domain that included certain suggestions. We used SPSS for the analysis of the study results. The results revealed that the most prominent difficulties that face university youth are related to commitment to the social values that encourage volunteering, where those values include family stressors and practical life stressors, in addition to the ambiguity of the concept of social values

and the mechanisms of implementing them, as well as the lack of interest in voluntary activities among parents. Moreover, Al-Qarni [10] aimed at identifying the reality of the university youth's participation in voluntary activities, identifying the voluntary domains and opportunities available to students, detecting the obstacles that hinder the university youth's participation in voluntary activities and suggesting mechanisms to enhance their participation in voluntary activities. The results revealed that the average mean for the level of university youth's participation in voluntary activities was (2.1) with a low degree. The average mean for the responses of the sample individuals about the voluntary opportunities and domains available to the university youth was (2.7) with a medium degree, whereas the average mean for the responses of the sample individuals about the obstacles facing the university youth's participation was (3.5) with a high degree. Also, the average mean for the responses of the sample individuals about the mechanisms of enhancing the university youth's participation in voluntary activities was (3.7) with a high degree. The results revealed that there are statistically significant differences (0.05) in the level of the university youth's participation in voluntary activities attributed to the variable of gender in favor of males, and to the variable of participating in university activities in favor of those who participate frequently in university activities. In a similar vein, Lutih [3] aimed to identify the authenticity degree of the values and culture of volunteering among the youth in the UAE, as well as the reinforcement of the values of societal participation among them. The questionnaire results were analyzed for the responses of a purposive sample from the students of the faculty of social and human sciences at the University of Emirates.

The study highlighted the necessity of considering the Arabic political and cultural context while talking about the Arabic civil community, stressing the importance of volunteering culture and the role of civil community in enhancing the developmental processes, and avoiding overlap and ambiguity while addressing the civil community within the context of Arab communities due to the modernity of this concept and the issues related to its relationship with the state and community. The study stressed that there are a number of challenges that hinder the work of civil community institutions in the Arab communities, including the problems related to the nature of the structure of the Arab communities, which have various doctrinal and ethnic diversity. This context necessitates more efforts by civil community institutions in order to overcome the variations and achieve the public interest. Also, the study recommended the necessity of overcoming the issues of external financing that restrict the role of civil community institutions, in addition to enhancing the values of societal participation and volunteering among the young individuals, particularly in a small-population community that is still new to constructing institutions, where it requires promoting the societal efforts to push the developmental process forward. In a study by Al-Sultan [11], the researcher aimed at identifying the attitudes of university youth towards practicing voluntary work and the nature of the desired voluntary activities among them, as well as determining the obstacles that hinder university youth from performing voluntary activities. A questionnaire was applied to a stratified random sample that consisted of (373) male students from King Saud University.

The results revealed that the average mean for practicing voluntary activities among the university youth was low. The results revealed that there are positive attitudes towards voluntary work, where the preferred voluntary activities included helping people and needy in the first place, followed by visiting the sick, participating in human relief activities, taking care of the disabled, protecting the environment, and finally combating drugs and smoking. The results revealed that the least preferred voluntary work domains were civil defense, helping sports clubs, and taking care of children. The results showed that acquiring new skills, increasing experience, and filling the free time by doing beneficial activities as well as helping in community service were among the most important benefits of the youth's participation in voluntary activities.

The current study benefited from the previous studies in citing the theoretical and methodological framework, in addition to utilizing those studies in identifying the factors relating to the valuation of the university youth for voluntary work.

### 3. Methodology

#### 3.1. Research Design

1- The study type and method: The study used an analytical descriptive approach based on social survey by sample.

2- The study domains are: The study included the geographical, human, and temporal domains, as follows:

A) The geographical domain is:

The study was conducted at some universities in the United Arab Emirates.

B) The human domain:

Research Population: The study population consisted of all the male and female students in the social departments in the targeted universities, with total of (750) male and female students.

Research Sample: The study sample consisted of (250) male and female students, (33.3%) of the total study population.

Instrument: The study data were collected from the sample individuals based on an electronic questionnaire developed by using Google Forms.

C) Temporal domain:

The study was applied during the first semester of the academic year 2023-2024.

3- Measuring the study variables:

The study used (14) variables that were measured as follows:

- Gender was measured by the value (1) for males, and the value (2) for females.
- Age: it was measured according to the number of years from birth until the time of collecting the data, with an average age of (21.4) years and a standard deviation of (2) years.
- Marital status: the single was given the value (1), the married was given the value (2), divorced (3), and the widow (4).
- We measured the number of family members at the time of data collection, with an average mean of (6.2) individuals and a standard deviation of (2.3) individuals.
- Place of residence: Abu Dhabi was given the value (1), Sharjah (2), Ras Al-Khaima (3), Ajman (4), Fujaira (5), Dubai (6), and Umm Al Quwain (7).
- Monthly income of the participant and his family was measured by using the Arab Emirates dirham, where the average mean for the income was (24.388) AED, with a standard deviation of (18.346) AED.
- The health status of participants was measured using a 5-point scale, with (16) items, where the responses ranged between (strongly disagree, disagree, neutral, agree, strongly agree), with the values (1, 2, 3, 4, 5), respectively. We collected the item scores, and the sum represents the overall average of participants' health status, with a mean of (74.4) and a standard deviation of (6.9). The Cronbach alpha was (0.907), which is high and indicates the scale's reliability, and the validity coefficient was (0.952), which is high, indicating the validity of the scale.
- The participants' educational status was measured by using a 5-point scale, with (19) items, where the responses ranged between (strongly disagree, disagree, neutral, agree, strongly agree), with the values (1, 2, 3, 4, 5), respectively. We collected the item scores, and the sum represents the overall average of the participants' educational status, with a mean of (90.9) and a standard deviation of (7.5). The value of Cronbach alpha was (0.956), which is high and indicates the scale's reliability, and the validity coefficient was (0.975), which is high, indicating the validity of the scale.
- The participants' economic status was measured using a 5-point scale, with (19) items, where the responses ranged between (strongly disagree, disagree, neutral, agree, strongly agree), with the values (1, 2, 3, 4, 5), respectively. We collected the items' scores, and the sum represents the overall average of the participants' economic status, with a mean of (85.3) and a standard deviation of (11.6). The value of Cronbach alpha was (0.939), which is high and indicates the scale's reliability, and the validity coefficient was (0.969), which is high, indicating the validity of the scale.

- The participants' affiliation and citizenship were measured using a 5-point scale, with (13) items, where the responses ranged between (strongly disagree, disagree, neutral, agree, strongly agree), with the values (1, 2, 3, 4, 5), respectively. We collected the items scores, and the sum represents the total average for the participants' affiliation and citizenship, with a mean of (63.6) and a standard deviation of (4.1). The Cronbach alpha was (0.968), which is high and indicates the scale's reliability, and the validity coefficient was (0.983), which is high, indicating the validity of the scale.

- The participants' marital status was measured using a 5-point scale, with (19) items, where the responses ranged between (strongly disagree, disagree, neutral, agree, strongly agree), with the values (1, 2, 3, 4, 5), respectively. We collected the items' scores, and the sum represents the overall average for the participants' social status with a mean of (88.6) and a standard deviation of (9.5). The value of Cronbach alpha was (0.947), which is high and indicates the scale's reliability, and the validity coefficient was (0.973), which is high, indicating the validity of the scale.

- The participants' attitudes towards volunteering were measured using a 5-point scale, with (15) items, where the responses ranged between (strongly disagree, disagree, neutral, agree, strongly agree), with the values (1, 2, 3, 4, 5), respectively. We collected the items' scores, and the sum represents the overall average for the participants' attitudes towards volunteering with a mean of (70.9) and a standard deviation of (7.0). The value of Cronbach alpha was (0.943), which is high and indicates the scale's reliability, and the validity coefficient was (0.971), which is high, indicating the validity of the scale.

- The participants' valuation of volunteering is the dependent variable in the study, and was measured by asking each student from the sample individuals a question stating "Do you think that the university youth value volunteering in the UAE?" The dependent variable followed the dual-category descriptive variables, and was measured using a 2-point scale, answered by yes or no. The responses were given the scores (1, 2) respectively.

4- The instruments for data collection:

An electronic questionnaire was used to collect data. Also, a "pretest" was conducted, where the questionnaire was applied to a sample of (30) male and female students (outside the main study sample); accordingly, some items were modified others were paraphrased, or deleted, and new items were added.

5- Validity and Reliability Tests:

The rationing tests for the scales used in the study are:

The scale's reliability:

A - Reliability by using Cronbach's Alpha coefficient: in order to determine the scale's reliability coefficient, Cronbach's Alpha coefficient was used, which shows the consistency of the scale's items with each other and with all the questions in general, as follows:

$$\alpha = \frac{k}{k-1} \left[ 1 - \frac{\sum s_i^2}{s_i^2} \right]$$

The variable (k) represents the quantity of test concepts.

(k-1) denotes the number of test concepts -1.

( $\sum s_i^2$ ) denotes the variance of the scores of each individual in the test.

( $s_i^2$ ) denotes the total variance for the sum of concepts' scores.

The values of this coefficient have been mentioned previously in the section of measuring variables.

B- Intrinsic Validity:

The following formula was used to measure intrinsic validity.

The coefficient of intrinsic validity= $\sqrt{\text{reliability coefficient}}$ .

The values of this coefficient have been mentioned previously in the section on measuring variables.

6- The study hypotheses:

Based on a review of the results of previous studies, and according to the two objectives of the study, the following hypotheses were cited:

A) There is a significant correlation between each of the (9) independent variables included in the analytical model: age, number of family members, monthly income of the participant or his family, health status of the participant, educational status of the participant, economic status of the participant, affiliation and citizenship, social status of the participant, and the attitudes towards volunteering, with the dependent variable of university youth's valuation of voluntary work.

B) The pre-mentioned (9) independent variables contribute significantly to explaining the variation in the scores of the variable of university youth's valuation of voluntary work. We tested the study hypothesis in its null form.

C) The results of the discriminant analysis help predict the opinions of the university youth who value and don't value voluntary work in the United Arab Emirates.

7- The statistical methods used were:

We used a number of statistical methods to analyze the study data, including means, standard deviations, percentages, and frequencies to describe the various variables. Cronbach Alpha ( $\alpha$ ) was also used to calculate the internal consistency of the variables. The hypotheses were tested using the discriminant analysis method, and the data were analyzed using (SPSS).

### 3.2. The Characteristics of the Sample Individuals

The results in [Table 1](#) revealed that the majority of the sample individuals were males (63.6%), and that the majority of the sample individuals were aged between (23 - 24) years old, with most of them being single (56%). The results showed that the number of family members mostly ranged between (6-8) individuals (47.6%), and that most sample individuals resided in the Emirates of Ajman and Abu Dhabi, respectively. As for the educational status, the majority of the sample individuals ranged between those who were studying and had their own work and those who were studying and did not work, respectively. Also, the income of most sample individuals ranged between (8,000-31,000) AED (74%).

**Table 1.**  
The characteristics of the sample individuals.

Characteristics	Number	Percentage
1) Gender		
• Male	159	63.6
• Female	91	36.4
2) Age		
• 18- 19 years	96	38.5
• 20- 22 years	43	17.3
• 23- 24 years	110	44.2
3) Marital status		
• Single	140	56.0
• Married	104	41.6
• Divorced	6	2.4
4) Number of family members		
• 2- 5 members	94	37.6
• 6- 8 members	119	47.6
• 9-12 members	37	14.8
5) Place of residence		
• Abu Dhabi	72	28.8
• Sharjah	14	5.6



Characteristics	Number	Percentage
• Ras Al-Khaima	11	4.4
• Ajman	76	30.4
• Fujaira	14	5.6
• Dubai	29	11.6
• Umm Al Quwain	34	13.6
6) Job status		
• Student or not working	72	28.8
• Student and working in private sector	14	5.6
• Student and working in public sector	11	4.4
• Student and have my own work	76	30.4
7) Monthly income of participants or family		
• 8000-31000 AED	190	74.0
• 32000-56000 AED	41	16.4
• 57000-80000 AED	19	7.6

Source: Results of analysis of the electronic questionnaires for the sample individuals.

### 3.3. The Study Results

The study used the discriminant analysis to describe and test the relationship between the descriptive dependent variable, which is the valuation of the university youth to voluntary work, and each independent variable (age, number of family members, monthly income of participants and their families, affiliation and citizenship, participants' health status, participants' educational qualification, participants' marital status, attitudes towards volunteering), where they are the variables that are supposed to discriminate between the two groups of the dependent variable; i.e. between those who think that the university youth do not value voluntary work and those who think that the university youth value voluntary work.

**Table 2.**

Means and standard deviations for the discriminating variables of the two groups of the dependent variable.

	Variables	Mean			SD		
		Group 1 (48)	Group 2 (202)	Total sample (250)	Group 1 (48)	Group 2 (202)	Total sample (250)
1	Age	22.2	21.2	21.4	1.9	2.0	2.0
2	Number of family members	5.5	6.4	6.2	2.2	2.4	2.4
3	Monthly income of participants or family	27750	23598.1	24388	18704.3	18216.1	18346.4
4	Participants' health status	66.25	76.4	74.4	8.6	4.7	6.9
5	Participants' educational qualification	82.8	92.9	91.0	11.4	4.4	7.5
6	Participants' economic status	73.2	88.1	85.3	12.6	9.2	11.6
7	Affiliation and citizenship	59.2	64.6	63.6	7.2	1.7	4.1
8	Participants' marital status	77.5	91.2	88.6	12.7	6.2	9.5
9	Attitudes towards volunteering	62.4	72.9	70.9	8.6	4.7	7.0

Source: Results of analysis of the electronic questionnaires for the sample individuals.

Therefore, they are known as discriminating variables.

By classifying the study sample into the two groups of the dependent variable, it is obvious that the number of the students who think that the university youth do not value voluntary work was (48) male and female students (19.2%), and those who think that the university youth value voluntary work were (202) male and female students (80.8%).

Table 2 shows that there are differences between means and standard deviations of the two groups for each independent variable.

In order to verify the significance of differences between those means, Wilks' Lambda ( $\lambda$ ) value and f-values were also calculated, where the significance level of f-value was found for each difference, as illustrated in Table 3. All the independent variables included in the analytical model showed significant differences between the means for the two groups of the dependent variable, except for the monthly income of participants and their families, where the differences between the two groups were not statistically significant.

By reviewing the values of Standard Canonical Discriminant Function Coefficient (SCDFC) to determine the relative contribution of discrimination function i.e., the relative importance of each independent variable in interpreting the dependent variable and the discrimination between its two groups, we can see that the variables are ordered in a descending order based on importance, as follows: attitudes towards voluntary work, participant's social status, participant's health status, participant's social status, age, participant's educational status, affiliation and citizenship, participant's economic status, and finally the number of family members.

In order to achieve the first study objective that focuses on identifying the factors related to the variable of the university youth's valuation of voluntary work and test the first hypothesis, the values of correlation coefficients were calculated between the independent discriminating variables and the discrimination function in Table 3.

The results showed that all the values were significant, except for the variable of participant's monthly income or his family, which wasn't significant at any significance level. This finding supports the first hypothesis partially. The values of correlation coefficient ranged between the independent variables and the dependent variable, where the variable of the attitudes towards volunteering had the highest value (0.818), whereas the variable of the number of family members had the lowest value (0.177).

**Table 3.**

Wilks' Lambda ( $\lambda$ ), significance level, SCDFC, and correlation coefficient between the discriminating variables and discrimination function.

	Variables	Wilks' Lambda ( $\lambda$ )	F	Sig. level	(SCDF C)	Correlation coefficient
1	Age	0.965	9.023	0.003	-0.170	-0.212
2	Number of family members	0.975	6.256	0.013	0.018	0.177
3	Monthly income of participants or family	0.992	2.003	0.158	-0.074	-0.100
4	Participants' health status,	0.665	124.8	0.006	0.199	0.790
5	Participants' educational qualification	0.711	100.6	0.000	0.150	0.709
6	Participants' economic status	0.738	88.15	0.000	0.124	0.664
7	Affiliation and citizenship	0.727	93.3	0.000	0.133	0.683
8	Participants' marital status	0.678	117.7	0.000	0.308	0.767
9	Attitudes towards volunteering	0.650	133.8	0.000	0.342	0.818

Source: Results of analysis of the electronic questionnaires for the sample individuals.

Table 4 revealed that the value of Wilks' Lambda ( $\lambda$ ) through which we can discriminate between the two groups of the dependent variable was (0.554), and that Chi-square was (143.975), which is statistically significant at (0.001), indicating the significance of ( $\lambda$ ). This indicates the significance of the differences in

the independent variables used in discriminating between the two groups. It is worth noting that when the value of ( $\lambda$ ) approaches (1), the means of the two groups of the dependent variable will be closer to each other. However, when the value of ( $\lambda$ ) approaches to (0), the means of the two groups of the dependent variable will be more different from each other [7, 12, 13].

In order to achieve the second study objective related to identifying the determinants for the variable of the university youth's valuation of voluntary work and test the second hypothesis, the value of  $\text{Eta}^2$  is calculated, where it was (0.446), which is equal to the multiplication sum of (Eigenvalue \* Wilks' Lambda), and at the same time it is equal to (1-Wilks' Lambda), as the sum of ( $\text{Eta}^2 + \lambda = 1$ ). This value is equal to Canonical Correlation Coefficient between the groups and the discrimination function of (0.668) as illustrated in Table 4. It is worth noting that the significance value of ( $\text{Eta}^2$ ) is equal to the significance value of ( $R^2$ ) based on multiple regression analysis, and the value of ( $\lambda$ ) is equivalent to (1- $R^2$ ) [7, 12, 13]. Therefore, the independent variables used in this study accounted for (44.6%) of discrimination between the two groups of the dependent variable. However, the value of ( $\lambda$ ) revealed that there is (55.4%) of unexplained discrimination, which is attributed to other variables not included in the analytical model. This finding supports the second hypothesis partially.

**Table 4.**  
The indicators of the discrimination function.

Eigenvalue	% of variance	Cumulative %	Canonical corr. *
0.806	100.0	100.0	0.668
Wilks' Lambda	Eta2 **	Chi-square***	Df
0.554	0.446	143.975	9

Note:

$$* \text{Canonical corr. } (r) = \sqrt{\text{Eigenvalue} / 1 + \text{Eigenvalue}}$$

$$** \text{Eta}^2 = 1 - \lambda, = \text{Eigenvalue} * \lambda, = r^2$$

\*\*\* Statistically significant at 0.001.

Source: Results of analysis of the electronic questionnaires for the sample individuals.

To achieve the third study objective and test the third hypothesis, the results in Table 5 reveals the extent to which the results of discriminant analysis can contribute to predicting the opinions of the two groups of the dependent variable, which is the valuation of voluntary work among university youth in the UAE. The results revealed that the first group who suggested that the university youth don't value voluntary work in the UAE reported that these cases apply to (35) (72.9%) male and female students, whereas (13) (27.1%) male and female students value voluntary work. As for the second group, (185) (91.6%) male and female students reported that the university youth don't value voluntary work, whereas (17) (8.4%) reported that university youth value voluntary work. Therefore, a total of (220) (88%) male and female students don't value voluntary work. This finding supports the third hypothesis partially.

**Table 5.**

The results of the actual and expected classification of the satisfied and unsatisfied with university services.

Actual classification		Expected classification	
Group	Number	First group	Second group
First group	48	(72.9%) 35	(27.1%) 13
Second group	202	(8.4%) 17	(91.6%) 185

Source: Results of analysis of the electronic questionnaires for the sample individuals.

In order to identify the percentage of general valuation of voluntary work among the university youth in the UAE, Tau value was calculated based on the following formula:

$$* \text{Tau} = \frac{n_c - \sum_{i=1}^g P_{ini}}{n_o - \sum_{i=1}^g P_{ini}}$$

Where:

- $n_c$  Is the number of cases correctly classified
- $P_i$  Is the prior probability of group membership (0.5)
- $N_i$  Is the size of groups (g)
- $G$  Is the number of groups
- $n_o$  Is the total sample size of all groups

**Source:** Abdul-Rahman [12].

The results revealed that the students with positive attitudes towards voluntary work, good health status, younger age, good educational status, affiliation and citizenship, good economic status, and larger family size are more likely to report that the university youth value voluntary work in the UAE, with a percentage of (76%), which is a high percentage indicating the importance of those variables and their effect on discrimination.

#### 4. Conclusions

1. The results revealed that most male and female university students generally value voluntary work, which indicates that they have high levels of awareness concerning the importance of the developmental role of voluntary work.
2. The variable of the positive attitude towards voluntary work was in the first place concerning the causes of the youth's valuation of voluntary work, which indicates the importance of this variable and its role in distinguishing between those who value or don't value voluntary work as well as the importance of enhancing the present and future of voluntary work among people in the UAE.
3. The results of (Tau) revealed that the students with positive attitudes towards voluntary work, good health status, younger age, good educational status, affiliation and citizenship, good economic status, and larger family size are more likely to report that the university youth value voluntary work in the UAE, with a percentage of (76%), which indicates that improving these characteristics will enhance the university youth's valuation of voluntary work.
4. The nine variables included in the model accounted for (44.6%) of variance in the scores of the variable of the university youth's valuation for voluntary work. Despite this high percentage as compared to the number of variables, the majority of variance in the dependent variable wasn't explained, indicating that there are several other factors that are responsible for explaining most of this valuation, these factors could be personal, demographic, psychological, economic, cultural, or societal) and contribute to a better understanding of this phenomenon.

#### 5. Recommendations

Based on the results, the study recommended the following:

1. The necessity of enhancing the variables that have significant effect, considering them as a set of the most important motives in the valuation of voluntary work among the university youth, particularly the variable of positive attitudes towards voluntary work.
2. Conducting further studies that include more samples of the university youth by taking advantage of more diverse variables, which, in turn, contributes to having more obvious vision about the study topic at the state's level.
3. Conducting more studies to value voluntary work among other categories of stakeholders and their relationship with community.

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#### Institutional Review Board Statement:

The Ethical Committee of the Al Ain University, UAE has granted approval for this study (Ref. No. COP/AREC/AD/54).

### Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all the ethical practices during writing.

### Competing Interests:

The authors declare that they have no competing interests.

### Authors' Contributions:

All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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