

Factors that Influence Bangladeshi Student's Decisions to Major Accounting at the Entrance of University

— *Review of* —
**Integrative
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— *Research* —

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ABSTRACT

The study examines the influence of factors on students' decision to major accounting at the entrance of university, by analyzing 146 samples of four universities. Therefore, the purpose of this study is to identify the factors related to the choice of students to major accounting in Bangladeshi university. In order to examine factors associated with student choice in accounting major, eight factors that are likely to have influence on students' decisions were determined. A set of closed minded questionnaire was developed on the basis of these eight factors to collect data from students that influence them to major accounting. Questionnaire was used as a data collection tool and analyses was done by using statistical tools. The findings reveal that personal interest with motivation & financial factors have a significant influence over the students' decision to opt for accounting as a major compare with other factors.

Keywords: Accounting major, Bangladesh, Financial factors, Personal factor

1. INTRODUCTION

Choosing an accounting major at the entrance of the university is an important decision, based on several factors that would include referent group, years of formal education, first accounting course, personal interest, income, carrier opportunity, traditional view & gender gap. Although many researchers have conducted different study to find out factors that influence students to major accounting, there is dearth of researches in relation to accounting in Bangladesh. Therefore, the primary purpose of this paper is to examine the factors which influence students' choice of accounting in Bangladeshi universities & the secondary purpose is to find out which factor students mostly consider before to choose an accounting major.

The rest of the paper is organized as follows: Section two overviews historical background of accounting profession in Bangladesh & section three is devoted to overview the relevant literature of the selected eight factors that influence student's decisions to major accounting. Then, Section four is the methodology adopted & section five outlines the relevant factor analysis of the study. Next, the result and discussion are documented in Section six and the overall conclusions regarding these results are presented in Section seven.

2. HISTORICAL BACKGROUND OF ACCOUNTING PROFESSION IN BANGLADESH

Accountancy's infancy dates back to the earliest days of human agriculture and civilization (the Sumerians in Mesopotamia), when the need to maintain accurate records of the quantities and relative values of agricultural products first arose. Simple accounting is mentioned in the Christian Bible (New Testament) in the Book of Matthew, in the Parable of the Talents (Matt. 25:19). The Islamic Quran also mentions simple accounting for trade and credit arrangements (Quran 2: 282). Twelfth-century A.D. Arab writer Ibn Taymiyyah mentioned in his book *Hisba* (literally, "verification" or "calculation") detailed accounting systems used by Muslims as early as in the mid-seventh century A.D. These accounting practices were influenced by the Roman and the Persian civilizations that Muslims interacted with. The most detailed example Ibn Taymiyyah provides of a complex governmental accounting system is the *Divan of Umar*, the second Caliph of Islam, in which all revenues and disbursements were recorded. The *Divan of Umar* has been described in detail by various Islamic historians and was used by Muslim rulers in the Middle East with modifications and enhancements until the fall of the Ottoman Empire (syed sajid).

In Indian sub-continent, accounting profession was legally accepted by bringing company law into force in 1850. According to the law, it was compulsory to audit the accounts of the organizations on half-yearly basis. And to do so there needs expert auditor. In that period, the companies select European and Indian auditors to maintain the interest of the European and Indian shareholders. As there were no rules to assess the eligibility of Indian auditors, the lawyers act as an auditor in that period. It was made compulsory to audit the accounts of a company by an expert and independent auditor in the Company Act 1913 which was effective from 1st March 1914. From the due date, any person who was not certified by government can't perform the tasks of an auditor and for that reason, the lawyers and other auditors' loss their eligibility. In 1918, Mumbai Govt. starts a test of "Government Diploma in Accountancy" to bring out professional accountants. This test was then accepted by other provincial and central government. There was no central control upon accounting profession until the "Auditors Certificate Rule" passed in 1932. Persons who get certificate in pursuance of this law were known as 'Registered Accountants' (R.A.). After separation of Indian sub-continent, the Government of Pakistan accepted the "Companies Act 1913" and the "Auditors Certificate Rule" of 1932. In 1950, the Government of Pakistan made some corrections on Auditors Certificate Rule and changed it to "Auditors Certificate Rule, 1950" (WWW. Wikipedia.com). According to this law, the Ministry of Commerce preserves a list for accountants and the persons who were in that list got the authority to use 'Registered Accountants'. Later the registered accountants established "Pakistan Institute of Accountant" to preserve their interest and for development of the profession. This institute tried to make it understand to the government that their need to establish a separate association to authorize and control the accounting profession. After that the government realizes the importance of the profession and set up "Council of Accountancy"- an advisory board. Later on 1st of July 1961 the government declared an ordinance- "Institute of Chartered Accountant of Pakistan" in accordance with the recommendation of the advisory board. And then on 1st July 1961 "Institute of Chartered Accountant of Pakistan" was established (according to Chartered Accountants Ordinance 1961) as an autonomous association. This association controls all about the accountancy profession. After liberation war in 1971, Bangladesh which was formerly known as East Pakistan was separated from Pakistan and appeared as an independent country. After independence, Bangladesh faces lots of problems and difficulties because of a little number of Bengali

accountants. For that reason, the government of Bangladesh set up an “Add-hock” committee which appoints 18 chartered accountants to solve the problems. On 6th January 1972, the government passed a law “The Bangladesh Chartered Accountant Order” under Presidential Order No. 2 of 1973 (Md.Bazlur Rahman Khan) and then established “Institute of Chartered Accountants of Bangladesh” as of the following order. And now this association controls the accountancy profession in Bangladesh.

3. LITERATURE REVIEW

Factors that influence student’s decisions to major accounting have been identified in prior research studies. These factors include the following: referents group, years of formal education, first accounting course, personal interest, income, carrier opportunity, traditional view & gender gap.

In 1991, the AICPA commissioned a study to devise a marketing plan to attract students to the accounting profession. One of objectives was to identify the factors that influence a student’s choice of a major and the accounting instructor was identified as being one of those factors (Mauldin et al., 2000). In addition, the AICPA commissioned another study to determine which groups have the most impact on students’ career choice and which are more effective in providing career information in accounting. The study suggested that accounting faculty and courses were significant influences in both instilling interest and giving information about careers in accounting (Brown, 1994). A survey carried out by Smith (2005) found that accounting instructors have a strong influence on the student’s decision to pursue further studies in accounting. The research also found that students are likely to be influenced by their family. A significant portion of those surveyed choose to major in accounting because they knew an accountant.

A study by Inman et al.(1989) in USA reveal that parents, followed by instructors, have a strong impact on the choice of majors . Similarly, Marshall’s (2003) findings in New Zealand indicate that career advisors have profound influence on students’ choice of an accounting major. Another study (Hermanson et al., 1995) examined top business students’ perceptions of the accounting profession and how these perceptions may influence their career choices. Students were asked about the individuals who most influenced their major selection decision. Accounting majors reported that college instructors were the greatest influence, while others in the accounting field, friends, acquaintances, relatives, parents, and high school teachers and counselors were less influential. A study carried out by Gul et al.’s (1989) in Australia show that teachers or instructors do not play significant role in students’ choice of majors.

Paolillo and Estes’ (1982) conducted a study in USA to examine the effect of years of formal education regarding accounting major. They found that “years of formal education required” is important in accounting students’ choice of a major. Similarly, a survey carried out by Auyeung and Sands’ (1997) in Australia found that Australian and Chinese students place considerable importance on “years of formal education required” when choosing an accounting major. However, Mauldin et al. (2000) findings in the USA show that “years of formal education required” does not influence students’ decision to major in accounting.

A study carried out by Geiger and Ogilby (2000) investigated student’s perceptions of the first accounting course. Their research found that although intending accounting majors perceived the course more positively than non accounting majors, both groups of students had fairly positive perceptions of the introductory accounting course. Students tend to perceive that

successful performance in the introductory course can be an indication that they have an aptitude for accounting (2000).

According to some studies (Mintz & Cherry, 1993; Adams et al., 1994; Stice & Swain, 1997), the first accounting course is regarded as one of the most important courses in the accounting major because it shapes the students' aptitudes and skills needed for a successful career in accounting, clears perceptions of the profession, and gives insight about the nature of career opportunities in accounting.

According to the studies of Saemann & Crooker (1999), students are more likely to select accounting as a major when they deem accounting to be enjoyable and interesting. A study conducted by Galotti and Kozberg (1987) listed the following four factors as the most important in influencing students when selecting a college major;

1. How much I care about the subject
2. Something with good career opportunities
3. Something I will do well in
4. What I want to do with this major after college

On the other hand, Cohen and Hanno (1993) use the "theory of reasoned action" which specifies relationship among beliefs, attitudes, and behavior. Their findings in the USA show that, "skills and background in mathematics" facilitate or hinder students' decisions to major in accounting where Adams et al.'s (1994) findings in the USA show that "genuine interest in the field" is an important factor in students' choice of the accounting profession. Similarly, Paolillo and Estes' (1982) findings in the USA and Auyeung and Sands' (1997) findings in Australia show that "aptitude" was an important factor in accounting students' discipline choice. Didia and Hasnat (1998) and Bauer and Dahlquist (1999) showed that personality plays an important role in the choice of the major. Worthington and Higgs (2004) also observed that the students choose the major that matches their personality and personal interest. In addition, the role of characteristics may also be statistically significant in determining the choice of major.

A study by Lowe and Simons' (1997) in USA found that future earnings have the strongest influence on students' choice of a major. Ahmed et al. (1997) found that New Zealand students place considerable importance on financial factors when choosing an accounting major. Similarly, the findings of Felton et al. (1994) in Canada reveal that accounting students place greater emphasis on job availability and good long-term earnings. Other studies like Sabot and Wakeman (1991) and Walstrom et al. (2008) examined factors like job or income prospect as important criteria for the major selection. Hermanson et al., (1995) add money as a factor that students consider when choosing accounting as a career. Students' perception towards their major was examined by Giladi et al. (2001), who found that most of the students decide on their major during the high school years and the reason for the selection is the job prospect. Thus, a large proportion of students are expected to opt for accounting as major.

Cohen and Hanno' (1993) findings in the USA, and Fisher and Murphy' (1995) findings in the UK all reveal that public perception of accountants as being dreary, boring, and dull could discourage students from choosing accounting as a major. Cohen and Hanno (1993) also found that the students do not choose to major in accounting because they perceive it to be too number-oriented and boring. A study by Saemann and Crooker (1999) found that the traditional perceptions of precision and order in the profession discourage more creative individuals from

pursuing a major in business or accounting. They stated; “If there is a need to attract these (more creative) individuals, college accounting courses will require a new focus with less emphasis on preciseness. Greater efforts will also be necessary to convince high school students that the profession does not require as much precision as it may seem” (Saemann and Crooker, 1999 p.15). Crooker (1999) state that inherent creativity and perceptions of accounting profession are important factors when making decisions to major in accounting.

Research undertaken by Nelson and Vandrzyk (1996) in the USA demonstrated that females had more favorable attitudes towards accounting than male students. A study carried out in Ireland by Byrne and Willis (2005) supports this view concluding that female secondary school students viewed accounting as more definite, precise and compliance driven than males. Lowe and Simons (1997) found that female accounting majors ranked “the inherent nature of the subject matter” more important than male accounting majors, and that females in their study placed a higher value on the “ability to succeed academically in the major”.

A study conducted by Leppel et al. (2001) found that female students are more likely to be influenced in choice of major by a professional father, and that women from “high” socioeconomic backgrounds are less likely to major in business.

4. RESEARCH METHODOLOGY

4.1.Data collection

The research population of the study comprised all accounting & business students of 4 universities: Shanto-Mariam University of Creative Technology, BRAC University, East West University and Dhaka University. The sample size was made up of 146 first-year accounting students at the introductory accounting course and other business-related students taking introductory accounting course as part of their business degree from these universities. Total number includes: 36 students from Shanto-Mariam University of Creative Technology, 24 from BRAC University, 20 from East West University & 66 from Dhaka University. First-year students were chosen because Paolillo and Estes (1982), Mauldin et al. (2000), and Gul et al. (1989) argue that students tend to decide on their profession during the first two years of university. Additionally, as Jackling and Calero (2006) assert, the first course in accounting at undergraduate level has been considered to have an important role in shaping students’ perceptions of the profession. Moreover, first course in accounting offer useful information that can lead to better decision-making for all undergraduates as well as attracting non-accounting students to undertake accounting majors because these students have the flexibility to change their majors without delaying their graduation (Adams et al., 1994). The data were collected by providing a structured survey questionnaire. The questionnaires were sent to the students during class time.

4.2.Data analysis

The data were analyzed based on meaning expressed through word and by classifying the data into meaningful categories. The data obtained from the questionnaire were presented by tables. Questionnaire used 5 point likert-scale to ask the respondents to what extent they agree or disagree with a statement or to what extent they feel a specific factor has influenced them in their choice of major. The statistical methods for data analysis have included factor analysis to measure the suitability of the variables, cross tabulation to measure association between variables & Chi-Square to tests research hypothesis.

4.3.Questionnaire design

The questionnaire is composed of two parts; demographic profile & factors that influence students to major accounting. Demographic profile was used to obtain information regarding respondent's background, gender, age, race, parent's educational level, parent's income, and parent's occupation. Factors that influence students to major accounting were derived from prior literature work (Felton et al., 1994; Tan and Laswad, 2006; Sugahara and Boland, 2009). Students were asked to response all the question on five –point Likert measurement scale ranging from “1” representing “Strongly agree” to “5” representing “Strongly disagree”.

A correlation matrix is simply a rectangular array of numbers which gives the correlation coefficients between a single variable and every other variable in the investigation. The correlation coefficient between a variable and itself is always 1; hence the principal diagonal of the correlation matrix contains 1s. Table 1 is part of a correlation matrix showing how each of the 9 variables is associated with each of the other 8. Note that all correlations are positive (+ .230 or greater) and there is no negative correlation. Relatively high correlations indicate that two items are associated and will probably be grouped together by the factor analysis. Items with low correlations usually will not have high loadings on the same factor. Here, all the variables positively (all the correlation are positive) correlated with each other & showing high correlation. In Correlation Matrix, if there are many (Tabachnick & Fidell -2001) values above 0.30 then it bears a good sign; if there are fewer values above 0.30 then it bears a bad sign for analysis. Here, correlation matrix showing good sign (only two values below 0.30) & there for correlation matrix is appropriate for analysis. The table 1also shows determinant value that located under the correlation matrix. In statistical analysis, it assumes that the determinant should be more than 0.0001. If it is very close to zero, then co linearity will be too high. In terms of assumptions, the Determinant ($6.397E-010=0.0000006397$) is much larger than zero so that is good.

The Kaiser-Meyer-Oklin value (KMO) measures the suitability of data for factor analysis. According to Norusis (1994); KMO measure more than 0.50 is satisfactory for factor analysis to be valid, a value of 0.70 is considered “reasonable” and a value of 0.80 is considered “great” and values above 0.9 are excellent. Kaiser (1974) recommend 0.5 as minimum (barely accepted), values between 0.7-0.8 acceptable, and values above 0.9 are superb. Here, in table 1.2 the initial solution of factor analysis revealed a KMO value of 0.860, which is great according to both (Norusis-1994 & Kaisen -1974) and exceeding the recommended value of 0.6 (Tabachnick and Fidell, 2001; Pallant, 2005). Bartlett's test is another indication of the strength of the relationship among variables. This tests the null hypothesis that the correlation matrix is an identity matrix. Bartlett Test of Sphericity is significant ($p<0.05$) supporting the factorability of the correlation matrix. The results of these two tests pointed that the data was an appropriate for factor analysis.

FACTOR ANALYSIS

Table-1: Correlation Matrix

	Sex	years of formal education	Referents	first accounting course	Income	Career opportunity	personal interest	Traditional view	Gender gap
sex	1.000	.154	.800	.820	.759	.773	.149	.819	.756
years of formal education	.154	1.000	.309	.311	.319	.329	.977	.339	.336
Referents	.800	.309	1.000	.980	.986	.971	.299	.966	.963
first accounting	.820	.311	.980	1.000	.970	.961	.301	.961	.941
Income	.759	.319	.986	.970	1.000	.966	.309	.953	.963
Career opportunity	.773	.329	.971	.961	.966	1.000	.318	.957	.981
personal interest	.149	.977	.299	.301	.309	.318	1.000	.328	.325
Traditional view	.819	.339	.966	.961	.953	.957	.328	1.000	.966
Gender gap	.756	.336	.963	.941	.963	.981	.325	.966	1.000

a. Determinant = 6.397E-010

Table-1.2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.853
Approx. Chi-Square	2988.495
Bartlett's Test of Sphericity	df
	36
	Sig.
	.000

Table-1.3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.764	75.153	75.153	6.764	75.153	75.153	6.379	70.880	70.880
2	1.738	19.306	94.459	1.738	19.306	94.459	2.122	23.579	94.459
3	.320	3.553	98.012						
4	.068	.756	98.768						
5	.040	.447	99.215						
6	.028	.310	99.525						
7	.023	.253	99.778						
8	.011	.127	99.905						
9	.009	.095	100.000						

Extraction Method: Principal Component Analysis.

The left portion of the table 1.3 shows the variance explained by the initial solution. On the basis of Varimax Rotation with Kaiser Normalization, 2 factors have been extracted in the initial solution. Each factor is constituted of all those variables that have factor loading greater than 1. Only two factors in the initial solution have eigenvalues greater than 1. The 1st factor has an eigenvalue = 6.764. Since this is greater than 1.0, it explains more variance than a single variable, in fact 6.764 times as much. The 2nd factor has an eigenvalue = 1.738. It is also greater than 1.0, and therefore explains more variance than a single variable. Other Side, Factors 3 through 9 have eigenvalues less than 1, and therefore explain less variance than a single variable. The sum of the eigenvalues associated with each factor (component) sums $(6.764 + 1.738 + .320 + .068 + \dots + .009) = 9$. The cumulative % of variance explained by the first two factors is 94.459%. In other words, 94.459% of the common variance shared by the 9 variables can be accounted for by the 2 factors. The second section of this table shows the variance explained by the extracted factors before rotation. The cumulative variability explained by these two factors in the extracted solution is about 94.459%, & there is no difference from the initial solution. The rightmost section of this table shows the variance explained by the extracted factors after rotation. Notices that initial solution, unrotated and rotated factor have same cumulative value.

Table-1.4: Component Matrix

	Component	
	1	2
Gender	.824	-.237
years of formal education	.422	.900
Referents	.983	-.114
first accounting course	.978	-.112
Income	.975	-.096
Career opportunity	.978	-.088
personal interest	.412	.904
Traditional view	.980	-.082
cultural barrier	.973	-.077

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Table-1.5: Rotated Component Matrix

	Component	
	1	2
Gender	.858	.000
years of formal education	.156	.981
Referents	.976	.163
first accounting course	.971	.163
Income	.964	.177
Career opportunity	.964	.186
personal interest	.146	.982
Traditional view	.964	.193
Gender gap	.957	.196

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Looking back at the “Total Variance Explained” table (table-1.3) shows that there were two components with eigenvalues greater than one. As a result, the “Rotated Component Matrix” table (table-1.5) contains two components, or factors. Looking at the results, we can see that the variables referents, first accounting course, income, career opportunity, traditional view, gender gap and sex all have values greater than 0.5 for the first factor. Loading or rotated value close to -1 or 1 indicates that the factor strongly affects the variable. Loading close to zero indicate that the factor has a weak effect the variable. Here, all the factors positively affect the variable & all fit into this first factor. The remaining variables have large values for the second component, indicating that the remaining two variables (personal interest & years of formal education) fit into the second factor. From the table we can see that variable referents correlates 0.976 with factor 1 & correlate 0.163 with factor 2. Variable personal interest correlate 0.146 with factor 1 & correlate 0.982 with factor 2. Here, the total proportion of the variance in referents ($0.976^2 + 0.163^2 = 0.979$) & personal interest ($0.146^2 + 0.982^2 = 0.985$) explained by the two factors is simply the sum of its squared

factor loading. This is the commonality of variables (referents & personal interest) & it can also be referred as highest rotated component variables. According to this commonality value; we can say that referents significantly influence on student's choice where personal interest in accounting major may be changed if there is no motivation. Then, income, career opportunity, traditional view equally explained 96.4% in component 1 & years of formal education explained 98.1% in component 2 under rotated component matrix. Note that both variable changes its value in component 1 & component 2. So, we can conclude that years of formal education will discourage students to choose accounting if there is little scope for income or specialized job. After that, variable gender gap load (correlate) highest and lowest loading variables sex on factor 1. Note that gender gap changes its value (0.957 to 0.196) in component 2 means cultural barrier creates a gender gap to major accounting where 85.8% responder (male & female) opinion that students perceived accounting profession is an unpleasant & boring.

This empirical study found very few responders feedbacks are consistent with the findings of prior research work (Saemann & Crooker, 1999, Adams et al.'s 1994, Didia and Hasnat 1998 and Bauer and Dahlquist 1999, Worthington and Higgs 2004) which indicate that personal interest significantly influence student's choice. They refer personality as a factor that shape student's overall aptitude that is attitude, personal beliefs & perception of owns ability. Their feedbacks are also consistent with the findings of Galotti and Kozberg, 1987 (four factors) & Cohen and Hanno, 1993(theory of reasoned action). However, the study found most of responder (table-1.6) emphasize on motivation by suggesting that only personal interest do not influence students choice. Students must be motivated beside personal interest; otherwise their choice may be changed. Regarding first accounting course; very few responders' feedback are not consistent with the findings of prior research work (Ogilby, 2000, Mintz & Cherry, 1993; Adams et al., 1994; Stice & Swain, 1997) which suggest that first accounting course do not influence student's choice. They do not emphasize on modernization of first accounting course to influence student's choice. However, most of the responder's (strongly agree=99 & agree=32) feedback are consistent with the findings of prior research work (Ogilby, 2000, Mintz & Cherry, 1993; Adams et al., 1994; Stice & Swain, 1997) which imply that first accounting course can shape student's overall aptitude, needed skill & perception toward accounting profession. So, according to cross tabulation analysis, both variables (first accounting course & personal interest) significantly influence on student's choice & they are not independent. Therefore, based on these research findings; we can develop following hypothesis:

H_0 -: There is no significant relationship between first accounting course & personal interest to influence student's choice

H_1 -: There is significant relationship between first accounting course & personal interest to influence student's choice

5. RESULTS & DISCUSSION

Table-1.6: first accounting course * personal interest Cross tabulation

		personal interest					Total	
		Strongly agree	Agree	Undecided	Disagree	Strongly disagree		
first accounting course	Strongly agree	Count	7	5	9	25	53	99
		% within first accounting course	7.1%	5.1%	9.1%	25.3%	53.5%	100.0%
		% within personal interest	100.0%	100.0%	100.0%	100.0%	53.0%	67.8%
		% of Total	4.8%	3.4%	6.2%	17.1%	36.3%	67.8%
	Agree	Count	0	0	0	0	32	32
		% within first accounting course	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
		% within personal interest	0.0%	0.0%	0.0%	0.0%	32.0%	21.9%
		% of Total	0.0%	0.0%	0.0%	0.0%	21.9%	21.9%
	Undecided	Count	0	0	0	0	6	6
		% within first accounting course	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
		% within personal interest	0.0%	0.0%	0.0%	0.0%	6.0%	4.1%
		% of Total	0.0%	0.0%	0.0%	0.0%	4.1%	4.1%
Disagree	Count	0	0	0	0	4	4	
	% within first accounting course	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
	% within personal interest	0.0%	0.0%	0.0%	0.0%	4.0%	2.7%	
	% of Total	0.0%	0.0%	0.0%	0.0%	2.7%	2.7%	

	Count	0	0	0	0	5	5
Strongly disagree	% within first accounting course	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% within personal interest	0.0%	0.0%	0.0%	0.0%	5.0%	3.4%
	% of Total	0.0%	0.0%	0.0%	0.0%	3.4%	3.4%
Total	Count	7	5	9	25	100	146
	% within first accounting course	4.8%	3.4%	6.2%	17.1%	68.5%	100.0%
	% within personal interest	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	4.8%	3.4%	6.2%	17.1%	68.5%	100.0%

Table-1.7: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	31.884 ^a	16	.010	.035		
Likelihood Ratio	45.196	16	.000	.000		
Fisher's Exact Test	29.452			.005		
Linear-by-Linear Association	13.112 ^b	1	.000	.001	.000	.000
N of Valid Cases	146					

a. 20 cells (80.0%) have expected count less than 5. The minimum expected count is .14.

b. The standardized statistic is 3.621.

According to rule of thumb, minimum expected count at least 1 is permissible & at most 20% of the expected counts are allowed to be less than 5 (Cochran, 1954). If both conditions are satisfied then chi-square test (p value) will be reliable for cross tabulation. If this is not meet (rule of thumb), then Fisher's exact test (when the cell count is less than 5) will be used for reliable p value (Fisher, 1924). From the bottom of the table 1.7, we can see that 80% (20) cells have expected count less than 5 & the minimum expected count is 0.14. This is against rule of thumb & does not meet the condition of Pearson's chi-square test. The table 1.7 indicate that Fisher's Exact Test =29.452 & $p < 0.05$ under 2 tailed significance test that is a very small probability of the observed data under the null hypothesis of no relationship. The null hypothesis is rejected, since $p < 0.05$. We can reject null hypothesis by accepting alternative hypothesis that first accounting course & personal interest has a significant relationship to influence student's choice.

The study has found (table-1.8) relevant feedback with the findings of prior research work (Lowe and Simons, 1997, Ahmed et al., 1997; Hermanson et al., 1995) which suggest that future income prospect influence student's choice. Student will not choose accounting if there is little earning prospect that is money is the main factor that influence student's choice. However, the study found relevant feedback with the findings of prior research work (Felton et al., 1994; Sabot and Wakeman, 1991; Walstrom et al., 2008; Giladi et al., 2001) which indicate that career opportunity influence student's choice. Students will not choose accounting if there is little prospect to get a specialized job (accounting job for accounting students) after major. So, these two variables are not independent & significantly influence student's choice. Therefore, based on these research findings; we can develop following hypothesis:

H_0 -: There is no significant relationship between income & career opportunity to influence student's choice

H_1 -: There is significant relationship between income & career opportunity to influence student's choice

According to Fisher's Exact Test (table-1.9); we can see that p value for both variables (Income and career opportunity) is 0.000 under 2 tailed significance test. So, we can conclude that

- Income & career opportunity are not independent
- They (Income and career opportunity) have statistically significant relationship ($p < .05$).
- Income & career opportunity positively influence student's choice, meaning that these variables tend to increase together that is long termed income possibility is associated with the scope of accounting job for accounting students.

Therefore, we can reject null hypothesis by accepting alternative hypothesis that there is significant relationship between income & career opportunity to influence student's choice

The study found very few responders (table-2) feedback are consistent with the findings of Mauldin et al. (2000) which imply that years of formal education do not discourage students regarding accounting major. Years of formal education will not discourage students if they have a genuine interest in accounting. According to their point of view, love in accounting is more influential than years of formal education required. However, most of the responder's feedbacks are consistent with the findings of prior research work (Paolillo and Estes, 1982; Auyeung and Sands, 1997) which indicate that students seriously consider years of formal education before deciding accounting major. Students generally prefer short-term career track than long term-term career track. Regarding referents, the study found very few responders' feedback is consistent with the findings of Gul et al.'s (1989) that referents do not change student's choice. They point out that love in accounting motivates more than referents. However, most of the responder's (strongly agree=99 & agree=30) feedback are consistent with the findings of Mauldin et al., (2000), Brown, (1994), Smith (2005), Inman et al. (1989), Marshall's (2003), Herman son et al., (1995) that referents can change student's choice. As a social being, what my surrounding people think is more influential than personal choice. So, both (rows & columns) variable are not independent & significantly influence on student's choice. Therefore, based on research findings; we can develop following hypothesis:

H_0 -: There is no significant relationship between referents & years of formal education to influence student's choice

H_1 -: There is significant relationship between referents & years of formal education to influence student's choice

Table-1.8: Income * Career opportunity Cross tabulation

			Career opportunity					Total
			Strongly agree	Agree	Undecided	Disagree	Strongly disagree	
Income	Strongly agree	Count	96	3	0	0	0	99
		% within Income	97.0%	3.0%	0.0%	0.0%	0.0%	100.0%
		% within Career opportunity	100.0%	11.1%	0.0%	0.0%	0.0%	67.8%
		% of Total	65.8%	2.1%	0.0%	0.0%	0.0%	67.8%
	Agree	Count	0	24	7	0	0	31
		% within Income	0.0%	77.4%	22.6%	0.0%	0.0%	100.0%
		% within Career opportunity	0.0%	88.9%	77.8%	0.0%	0.0%	21.2%
		% of Total	0.0%	16.4%	4.8%	0.0%	0.0%	21.2%
	Undecided	Count	0	0	2	1	0	3
		% within Income	0.0%	0.0%	66.7%	33.3%	0.0%	100.0%
		% within Career opportunity	0.0%	0.0%	22.2%	20.0%	0.0%	2.1%
		% of Total	0.0%	0.0%	1.4%	0.7%	0.0%	2.1%
	Disagree	Count	0	0	0	4	7	11
		% within Income	0.0%	0.0%	0.0%	36.4%	63.6%	100.0%
		% within Career opportunity	0.0%	0.0%	0.0%	80.0%	77.8%	7.5%
		% of Total	0.0%	0.0%	0.0%	2.7%	4.8%	7.5%
	Strongly disagree	Count	0	0	0	0	2	2
		% within Income	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

Total	% within Career opportunity	0.0%	0.0%	0.0%	0.0%	22.2%	1.4%
	% of Total	0.0%	0.0%	0.0%	0.0%	1.4%	1.4%
	Count	96	27	9	5	9	146
	% within Income	65.8%	18.5%	6.2%	3.4%	6.2%	100.0%
	% within Career opportunity	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	65.8%	18.5%	6.2%	3.4%	6.2%	100.0%

Table-1.9: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	300.725 ^a	16	.000	.000		
Likelihood Ratio	227.444	16	.000	.000		
Fisher's Exact Test	207.963			.000		
Linear-by-Linear Association	135.296 ^b	1	.000	.000	.000	.000
N of Valid Cases	146					

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .07.

b. The standardized statistic is 11.632.

Table-2: Referents * years of formal education Cross tabulation

		years of formal education					Total	
		Strongly agree	Agree	Undecided	Disagree	Strongly disagree		
Referents	Count	9	7	6	27	50	99	
	% within Referents	9.1%	7.1%	6.1%	27.3%	50.5%	100.0%	
	Strongly agree	% within years of formal education	100.0%	100.0%	100.0%	100.0%	51.5%	67.8%
	% of Total	6.2%	4.8%	4.1%	18.5%	34.2%	67.8%	
	Count	0	0	0	0	30	30	
	Agree	% within Referents	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% within years of formal education	0.0%	0.0%	0.0%	0.0%	30.9%	20.5%	
	% of Total	0.0%	0.0%	0.0%	0.0%	20.5%	20.5%	
	Count	0	0	0	0	4	4	
	Undecided	% within Referents	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% within years of formal education	0.0%	0.0%	0.0%	0.0%	4.1%	2.7%	
	% of Total	0.0%	0.0%	0.0%	0.0%	2.7%	2.7%	
Count	0	0	0	0	6	6		
Disagree	% within Referents	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
% within years of formal education	0.0%	0.0%	0.0%	0.0%	6.2%	4.1%		
% of Total	0.0%	0.0%	0.0%	0.0%	4.1%	4.1%		
Count	0	0	0	0	7	7		
Strongly disagree	% within Referents	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	

Total	% within years of formal education	0.0%	0.0%	0.0%	0.0%	7.2%	4.8%
	% of Total	0.0%	0.0%	0.0%	0.0%	4.8%	4.8%
	Count	9	7	6	27	97	146
	% within Referents	6.2%	4.8%	4.1%	18.5%	66.4%	100.0%
	% within years of formal education	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	6.2%	4.8%	4.1%	18.5%	66.4%	100.0%

Table-2.1: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	35.014 ^a	16	.004	.017		
Likelihood Ratio	49.088	16	.000	.000		
Fisher's Exact Test	31.312			.002		
Linear-by-Linear Association	13.869 ^b	1	.000	.000	.000	.000
N of Valid Cases	146					

a. 20 cells (80.0%) have expected count less than 5. The minimum expected count is .16.

b. The standardized statistic is 3.724.

Table-2.2: Traditional view * Gender gap Cross tabulation

			Gender gap					Total
			Strongly agree	Agree	Undecided	Disagree	Strongly disagree	
Traditional view	Strongly agree	Count	91	0	0	0	0	91
		% within Traditional view	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
		% within Gender gap	97.8%	0.0%	0.0%	0.0%	0.0%	62.3%
	% of Total	62.3%	0.0%	0.0%	0.0%	0.0%	62.3%	
	Agree	Count	2	31	6	0	0	39
		% within Traditional view	5.1%	79.5%	15.4%	0.0%	0.0%	100.0%
		% within Gender gap	2.2%	100.0%	100.0%	0.0%	0.0%	26.7%
	% of Total	1.4%	21.2%	4.1%	0.0%	0.0%	26.7%	
	Undecided	Count	0	0	0	5	0	5
		% within Traditional view	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
		% within Gender gap	0.0%	0.0%	0.0%	100.0%	0.0%	3.4%
	% of Total	0.0%	0.0%	0.0%	3.4%	0.0%	3.4%	
	Disagree	Count	0	0	0	0	4	4
		% within Traditional view	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
		% within Gender gap	0.0%	0.0%	0.0%	0.0%	36.4%	2.7%
	% of Total	0.0%	0.0%	0.0%	0.0%	2.7%	2.7%	
	Strongly disagree	Count	0	0	0	0	7	7
		% within Traditional view	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
% within Gender gap		0.0%	0.0%	0.0%	0.0%	63.6%	4.8%	
% of Total	0.0%	0.0%	0.0%	0.0%	4.8%	4.8%		
Total	Count	93	31	6	5	11	146	
	% within Traditional view	63.7%	21.2%	4.1%	3.4%	7.5%	100.0%	
	% within Gender gap	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
% of Total	63.7%	21.2%	4.1%	3.4%	7.5%	100.0%		

The Fisher's Exact Test results between referents and years of formal education in Table 2.1, shows a significant Fisher's Exact value = 31.312, $p = 0.002$. This means a significant relationship exists between referents and years of formal education. Students, who are not self-motivated, significantly consider years of formal education, while a majority of students choose their major subjects at the entrance of the university studies by the influence of referent group. Therefore, we can reject the null hypothesis by accepting the alternative hypothesis that referents & years of formal education has a significant relationship to influence student's choice.

The findings of this empirical study are consistent with the findings of several prior research works (Cohen and Hanno, 1993; Fisher and Murphy, 1995; Saemann and Crooker, 1999) which suggest that the public consider accounting as a boring, dreary & dull profession. Students consider accounting is a too number oriented subject & a time consuming unpleasant profession that discourage them to major accounting. Regarding gender gap, the findings of this empirical study are not consistent with the findings of prior research work (Nelson and Vendrzyk, 1996; Byrne and Willis, 2005; Lowe and Simons, 1997) which imply that female performance in accounting better than male. The study found that female major accounting less compare to male because of cultural barrier that is the professional choice & preference varies on the basis of cultural aspect. So, according to cross tabulation analysis in table-2.2, we can say that rows & columns variables are not independent, that is they have significant influence on student's choice. Therefore, based on these research findings, we can develop following hypothesis:

H_0 -: There is no significant relationship between traditional view & gender gap to influence student's choice

H_1 -: There is significant relationship between traditional view & gender gap to influence student's choice

Table-2.3: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	427.534 ^a	16	.000	.000		
Likelihood Ratio	260.316	16	.000	.000		
Fisher's Exact Test	232.817			.000		
Linear-by-Linear Association	135.295 ^b	1	.000	.000	.000	.000
N of Valid Cases	146					

a. 20 cells (80.0%) have expected count less than 5. The minimum expected count is .14.

b. The standardized statistic is 11.632.

The Fisher's Exact Test results between traditional view and gender gap in Table 2.3, shows a Fisher's Exact value = 232.817, $p = 0.000$. The p-value is less than 0.05 and hence there is a statistically significant association between traditional view and gender gap. This means that traditional perceptions discourage more creative students while female students has more positive attitude toward accounting than male students if they had the choice. So, we can reject null hypothesis by accepting alternative hypothesis that traditional view & gender gap significantly influence student's choice.

6. CONCLUSION

It is clear from the study that, students consider above mentioned all factors (referents group, years of formal education, first accounting course, personal interest, income, carrier opportunity, traditional view & gender gap) before deciding accounting major at the entrance of the university. The study shows that financial factors such as income & career opportunity are the most influential factors in selecting university major. Here, one wonders what the outcome may be if income & career opportunity fall. The findings of the study confirm with prior studies (Ogilby, 2000, Mintz & Cherry, 1993; Adams et al., 1994; Stice & Swain, 1997) which imply that first accounting course can influence the choice of accounting. Although first accounting course factor was found to be less important compared with the personal interest, most of the students were discovered to be more influenced by the personal interest factor with motivation. The findings also confirm with the studies of Mauldin et al., (2000), Brown, (1994), Smith (2005), Inman et al. (1989), Marshall's (2003), Herman son et al., (1995) which suggest that the referent factor can be influential in the decision. Regarding years of formal education, the findings of the study are not consistent with the studies of Paolillo and Estes, (1982); Auyeung and Sands, (1997). Most students have the intention to further their accounting studies which is a good indicator, since it will give them the opportunity to increase the depth of their accounting knowledge. The study shows that female choice regarding accounting major varies on the basis of cultural aspect which doesn't consistent with the studies like: Nelson and Vendrzyk, (1996); Byrne and Willis, (2005); Lowe and Simons, (1997). The choices differ because there is no career counseling system for the students to choose their major subjects & also no way to determine the aptitude of a student in more scientific way. The findings of the study confirm with the studies like Cohen and Hanno, (1993); Fisher and Murphy, (1995); Saemann and Crooker, (1999) which imply that traditional view factor discourages more creative students to major accounting. It is not clear in this study whether male performance in accounting better than female or whether the initial findings, we have regarding traditional view factor would be found to be important under gender gap factor because there is no proper career counseling system. It is therefore clear that the choice of accounting by most students in Bangladesh at the entrance of university is not only influenced by their personal interest in the subject, but also financial factors.

In spite of the valuable findings derived from this research, there are some limitations to it. At first, the study judge the perceptions of only first year

students, while in some prior research (Adams et al., 1994; Felton et al., 1994) final-year students were chosen. Students' decisions to major in accounting may be different in the future when compared to their first years of education (Marriott and Marriott, 2003). Therefore, it may be interesting to have sample of final year students to study "Factors that influence Bangladeshi student's decisions to major accounting at the entrance of university" which may be interesting to study in the future as a research gap. Another limitation is the lack of proper career counseling system. Most of the students choose their major subject on the advice of their friends or their senior brothers. Few students, sometimes, have no choice. They accept whatever comes in their way. None of the situation is good for the students. There is no institution or organization in Bangladesh to monitor the job market, to determine the job statistics, unemployment rate, job pattern; potential market etc. There is no support for aptitude test or career counseling to give better support to the students and to provide better job options. In the light of the limitation of proper career counseling system; the study strongly recommends creating those institutions.

REFERENCES

- [1] Auyeung, P. and Sands, J. (1997), "Factors influencing accounting students' career choice: a cross cultural validation study", *Accounting Education: An International Journal*, Vol. 6 No. 1, pp. 13-23.
- [2] Adams, S.J., Pryor, L.J. and Adams, S.L. (1994), "Attraction and retention of high- aptitude students in accounting: an exploratory longitudinal study", *Issues in Accounting Education*, Vol. 7 No. 2, pp. 45-58.
- [3] Ahmed, K., Alam, F.K. and Alam, M. (1997), "An empirical study of factors affecting accounting students' career choice in New Zealand", *Accounting Education: An International Journal*, Vol. 6 No. 4, pp. 325-335.
- [4] Book Micro Accounting Concepts By syed sajid
- [5] Brown M. H. (1994). "Diversity of career options is focus of recruitment campaign", *The Ohio CPA Journal*, Vol. 53, No. 2, pp. 9-14.
- [6] Bauer R J and Dahlquist J R (1999), "Recognizing and Eliminating Gender Bias in Finance Education", *Financial Practice and Education*, Vol. 9, No. 1.
- [7] Byrne, M. and Willis, P. (2005), "Irish secondary students' perceptions of the work of an accountant and accounting profession", *Accounting Education: An International Journal*, Vol. 14 No. 4, pp. 367-381.
- [8] Cohen J and Hanno D M (1993), "An Analysis of Underlying Constructs Affecting the Choice of Accounting as a Major", *Issues in Accounting Education*, Vol. 8, No. 2, pp. 219-238.
- [9] Cochran, 1954. Some methods for strengthening the common chi-square tests. *Biometrics*, 10:417-454.

[10] Didia D and Hasnat B (1998), "The Determinants of Performance in the University Introductory Finance Course", *Financial Practice and Education*, Vol. 8, No. 1, pp. 102-107.

[11] Felton, S., Buhr, N. and Northey, M. (1994), "Factors influencing business students' choice of a career in chartered accountancy", *Issues in Accounting Education*, Vol. 9 No. 1, pp. 1-19.

[12] Fisher, R. and Murphy, V. (1995), "A pariah profession? Some students' perceptions of accounting and accountancy", *Studies in Higher Education*, Vol. 20 No. 1, pp. 45-48.

[13] Fisher, R. A. 1924. The condition under which chi-square measures the discrepancy between observation and hypothesis. *Journal of the Royal Statistical Society*, 87: 442–450.

_____. 1925. *Statistical methods for research workers*. Edinburgh: Oliver and Boyd.

_____. 1935a. The logic of inductive inference. *Journal of the Royal Statistical Society*, 98: 39–54.

_____. 1935b. *The design of experiments*. Edinburgh: Oliver and Boyd.

_____. 1973. *Statistical methods and scientific inference*. 3rd ed. London: Collier Macmillan Publishers.

[14] Gul, F.A., Andrew, B.H., Leong, S.C. and Ismail, S. (1989), "Factors influencing choice of discipline of study – accountancy, engineering, law and medicine", *Accounting and Finance*, Vol. 29 No. 2, pp. 93-100.

[15] Geiger M A and Ogilby S M (2000), "The First Course in Accounting: Student's Perceptions and their Effect on the Decision to Major in Accounting", *Journal of Accounting Education*, Vol. 18, pp. 63-78.

[16] Galotti Kathleen M and Kozberg Steven F (1987), "Older Adolescents' Thinking About Academic/Vocational and Interpersonal Commitments", *Journal of Youth and Adolescence*, Vol. 16, No. 1.

[17] Giladi K, Amoo T and Friedman H H (2001), "A Survey of Accounting Majors: Attitudes and Opinions", *National Public Accountant*, Vol. 46, No. 2.

[18] Hermanson, D.H. and Hermanson, R.H. (1995), "Are America's top business students steering clear of accounting?", *Ohio CPA Journal*, Vol. 54 No. 2, pp. 26-30.

[19] Institute of Chartered Accountants of Bangladesh (www.wikipedia.com)

[20] Inman, B.C., Wenzler, A. and Wickert, P.D. (1989), "Square pegs in round holes: are accounting students well-suited to today's accounting profession?" *Issues in Accounting Education*,

Vol. 4 No. 1, pp. 29-47.

[21] Jackling, B. and Calero, C. (2006), "Influences on undergraduate students' intentions to become qualified accountants: evidence from Australia", *Accounting Education: An International Journal*, Vol. 15 No. 4, pp. 419-438. [22] Kaiser, H.F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.

[23] Lowe, D. and Simons, K. (1997), "Factors influencing choice of business majors – some additional evidence: a research note", *Accounting Education: An International Journal*, Vol. 6 No. 1, pp. 39-45.

[24] Leppel, Karen, Mary L Williams, and Charles Waldauer. 2001. "The Impact of Parental Occupation and Socioeconomic Status on Choice of College Major." *Journal of Family and Economic Issues* 22 (4):373-94. <http://dx.doi.org/10.1023/A:1012716828901>

[25] Marriott, P. and Marriott, N. (2003), "Are we turning them on? A longitudinal study of undergraduate accounting students' attitude towards accounting as a profession", *Accounting Education: An International Journal*, Vol. 12 No. 2, pp. 113-133.

[26] Md.Bazlur Rahman Khan, *Accounting Practice in Bangladesh* [online] available from: <https://www.scribd.com/doc/60623659/073-116-020>

[27] Mauldin S, Crain J L and Mounce P H (2000), "The Accounting Principles Instructor's Influence on Student's Decision to Major in Accounting", *Journal of Education for Business*, January/February, pp. 142-148.

[28] Marshall, R. (2003), "Calling on tomorrow's professionals", *Chartered Accountants' Journal*, Vol. 82 No. 1, pp. 4-9.

[29] Mintz S. and Cherry A. (1993), "The introductory accounting course: Educating majors and no majors", *Journal of Education for Business*, Vol. 68, No. 5, p. 276.

[30] Norušis, M. J. (1994) *SPSS Advanced Statistics 6.1*. Chicago:SPSS

[31] Nelson and Vandrzyk (1996), "Trends in accounting student characteristics: A longitudinal study at FSA schools, 1991–1995." [*Journal of Accounting Education* 14\(4\):453-475](#) .

[32] Paolillo, J.G.P. and Estes, R.W. (1982), "An empirical analysis of career choice factors among accountants, attorneys, engineers, and physicians", *The Accounting Review*, Vol. 57 No. 4, pp. 785-793.

[33] Pallant, J. (2005). *SPSS survival manual (2nd Ed.)*. Newyork, NY:Mcgraw – Hill.

[34] Smith, L.M., Smith, K.T., & Mulig, E.V. (2005), "Application and assessment of an ethics presentation for accounting and business classes", *Journal of Business Ethics*, 61, 153-164.

[35] Stice J. and Swain M. (1997), "The effect of performance on the decision to major", *Journal of Education for Business*, Vol. 73, No. 1, p. 54.

[36] Saemann, G.P. and Crooker, K.J. (1999), "Student perceptions of the profession and its effect on decisions to major in accounting", *Journal of Accounting Education*, Vol. 17 No. 1, pp. 1-22.

[37] Sabot R E and Wakeman L J (1991), "Grade Inflation and Course Choice", *The Journal of Economic Education*, Vol. 34, No. 4, pp. 323-343.

[38] Sugahara, S. and Boland, G. (2009), "The accounting profession as a career choice for tertiary business students in Japan: a factor analysis", *Accounting Education: An International Journal*, Vol. 18 No. 3, pp. 255-272.

[39] Tabachnick, B. G., & Fidell, L. S. (2001) *Using multivariate statistics* (4th Ed.). Needham Heights, MA: Allyn & Bacon.

[40] Tan, L.M. and Laswad, F. (2006), "Students' beliefs, attitudes, and intentions to major in accounting", *Accounting Education: An International Journal*, Vol. 15 No. 2, pp. 167-187.

[41] Worthington A and Higgs H (2004), "Factors Explaining the Choice of an Economics Major: The Role of Student Characteristics, Personality and Perceptions of the Profession",

[42] *International Journal of Social Economics*, Vol. 31, No. 5/6, pp. 593-613.

[43] Walstrom K A, Schambach T P, Jones K T and Crampton W J (2008), "Why are Students Not Majoring in Information Systems?", *Journal of Information Systems Education*, Vol. 19, No. 1.