

# What's Really Matter When Choosing a College Major!

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## Abstract

*The purpose of the study was to know and understand the sources students use when applying to higher education institutions; in particular, what factors influence student major choice. The three categories; (a) Different sources of information and influence; (b) characteristics of the job and (c) student fit and interest in the subject were the variables in addressing the relationship between the factors and students' major choices. The researcher wanted to explore students' perceptions about what factors mostly affected their college major choices. These three categories were the lens to analyze the factors which influenced students' major choice. The participants were 1725 undergraduate students in a private university in a gulf area. One survey was used to collect the data for this study: Influences on Choice of Major Survey. The researcher found that College choice has a significant correlation with college reputation ( $r=.093$ ,  $p<.044$ ) in the first year. College choice has significant correlations with college reputation ( $r=-.147$ ,  $p<.003$ ), School teacher ( $r= -.178$ ,  $p<.000$ ) and school advisor( $r= -.102$ ,  $p<.040$ ) in the third year. College choice has a significant correlation with school teacher ( $r= -.104$ ,  $p<.042$ ) in the fourth year. The researcher also found that College choice has a significant correlation with level of pay in the first year ( $r=.174$ ,  $p<.000$ ). College choice has a significant correlation with job opportunities in the second year ( $r=-.102$ ,  $p<.029$ ). In the third year, major choice has a significant correlation with job opportunities too ( $r= -.116$ ,  $p<.019$ ). College choice has a significant correlation with interest in the subject ( $r=.096$ ,  $p<.038$ ) in the first year. Adding to this, College choice has significant correlations with interest in the subject ( $r=-.101$ ,  $p<.042$ ), aptitude ( $r= -.226$ ,  $p<.000$ ) and high school related subject( $r= -.118$ ,  $p<.017$ ) in the third year. College choice has a significant correlation with aptitude ( $r= -.118$ ,  $p<.020$ ) in the fourth year.*

**Keyword:** undergraduate students, major choice, factors, influence

## Introduction

The number of people deciding to enroll in higher education has increased during the last quarter of the twentieth century (Al Khateeb, 2012; Bray & Major, 2011; Carnevale & Melton, 2011; García-Aracil, Gabaldón, & Mora, 2007; Mohsen, 2013; Moore & Shulock, 2011; Vila, Garcia-Aracil, & Mora, 2007; Al Any, 2013; Bayomi, 2011; Dickson, 2010; Galotti, 1999; García-Aracil et al., 2007; Hajar, 2012; Ismael, 2012; Mohsen, 2013; Simoes & Soares, 2010), which makes it interest to look at and understand the reasons

and sources students think of when they decide to choose a major in a college or university; in particular, what factors influence student major choice (Al Khateeb, 2012; Arcidiacono et al., 2010; Bartolj & Polanec, 2012; Bayomi, 2011; Beffy et al., 2012; Beggs et al., 2008; Carnevale & Melton, 2011; DeMarie & Aloise-Young, 2003; Dietz, 2010; Galotti, 1999; García-Aracil et al., 2007; Keshishian et al., 2010; Malgwi, Howe & Burnaby, 2005; Mohsen, 2013; Pampaloni, 2010; Pringle, DuBose, & Yankey, 2010; Scott-Clayton, 2011; Simoes & Soares, 2010; Simpson, 2003; Song & Glick, 2004; John, 2000; Wiswall & Zafar, 2011; Zafar, 2013)

### **Factors Influence College Major Choice**

College major choice has been the subject of research interest for quite some time (Al Any, 2013; Bartolj & Polanec, 2012; Beffy et al., 2012; Beggs et al., 2008; Dietz, 2010; Galotti, 1999; Ismael, 2012; Lafy, 2010; Malgwi et al., 2005; Najmi, 2014; Scott-Clayton, 2011; Simpson, 2003; Song & Glick, 2004; John, 2000), since major choice has been characterized as a complex decision that is influenced by many factors (Al Khateeb, 2012; Bayomi, 2011; Simoes & Soares, 2010). Empirical and theoretical research has identified three categories that have been shown to influence students' major choice: Different sources of information and influence, characteristics of the job and student fit and interest in the subject (Arcidiacono et al., 2010; Bartolj & Polanec, 2012; Beffy et al., 2012; Beggs et al., 2008; Carnevale & Melton, 2011; DeMarie & Aloise-Young, 2003; Dietz, 2010; Galotti, 1999; García-Aracil et al., 2007; Keshishian et al., 2010; Malgwi et al., 2005; Mohsen, 2013; Pampaloni, 2010; Pringle et al., 2010; Scott-Clayton, 2011; Simoes & Soares, 2010; Simpson, 2003; Song & Glick, 2004; St. John, 2000; Wilcoxson & Wynder, 2010; Wiswall & Zafar, 2011; Zafar, 2013).

### **Different Sources of Information and Influence**

Source of information and influence includes individuals who provide information and influence that affect students' major choice (Beggs, Bantham & Taylor, 2006). Some students are influenced by the direct or indirect recommendations of people they knew or met, and the advice students receive from parents, friends and school and college advisors influence students' major choice (Al Khateeb, 2012; Baker and Griffin, 2010; García-Aracil et al., 2007; Kimweli & Allan, 1999; Lafy, 2010; Najmi, 2014; Zafar, 2011).

Scott-Clayton (2011) argued the services provided for students and major options presented, is what makes universities and majors attractive for many students. Pampaloni (2010) found that institutional characteristics had an influence on students to choose a major on a specific university. According to their study, Beggs, Bantham and Taylor (2008) reported university catalogs and department brochures as being influential resource that influence major choice. Adding to this, marketing students through visiting schools and talking to students and parents rated as popular media more influential than any other sources (Al Khateeb, 2012; Lafy, 2010; Najmi, 2014).

### **Characteristics of the Job**

Future earnings have been measured as the most important characteristic of the job (Arcidiacono et al., 2010; Bartolj & Polanec, 2012; Beffy et al., 2012; Beggs et al., 2008; Carnevale & Melton, 2011; Keshishian et al., 2010; Malgwi et al., 2005; Song & Glick, 2004; Wilcoxson & Wynder, 2010; Wiswall & Zafar, 2011). Beffy, Fougere and Maurel (2012) noticed- from their conducted study- that students chose their majors depended on expected future earnings. In their study, Wiswall and Zafar (2011) found earnings were a significant determinant of major choice. According to Carnevale and Melton (2011), a college education is related to economic issues. They also argued students deserve to know that the labor market

does not treat majors and jobs the same. Students should know how their educational choices will affect the rest of their adult lives, in terms of the career they will have and their expected earnings.

Arcidiacono, Hotz and Kang (2010) believe choice of college major is determined by the future earnings. Song and Glick (2004) also noticed completion of higher education and the type of college major that students choose directly influences their career opportunities which results in differential earning power. Wilcoxson and Wynder (2010) reported the choice of major was promoted by students' confidence in their ability to make appropriate decisions to choose careers that result in higher earnings. Beggs, Bantham and Taylor (2006) added extrinsic and intrinsic rewards of a job have been measured such as financial aspects of the job.

### **Student Fit and Interest in the Subject**

Bartolj and Polanec (2012) provided evidence showed students' general abilities and their major-specific abilities play an important role in explaining college major choices. According to them general ability is measured with high school average grades and points achieved on a standardized exam at the end of high school, while major-specific abilities is measured when students enrolling in their second year looking at their grades and achievement.

Garcia-Aracil, Gabaldon and Mora (2007) found that secondary school grades are often influenced major choices. Song and Glick (2004) also found students who achieve higher scores in math in high school are more likely to go to majors related to math. Arcidiacono, Hotz and Kang (2010) showed that student's ability in the different majors is an important determinant of students' choice of a college major. Vila, Garcia- Aracil and Mora (2007) shared that grades achieved in specific courses taken during the first year were the most significant predictors of major choice.

Many authors believe that student interest in the subject is an important influence on major choice (Zafar, 2013, Moore & Shulock, 2011, Dietz, 2010; Wiswall & Zafar, 2011; Baker & Griffin, 2010). Moore and Shulock (2011) and Dietz (2010) believe that passion drive students' life, and tastes for majors are a dominant factor for choosing specific majors by students (Wiswall & Zafar, 2011). Dietz (2010) reported interest in the subject is the primary influence on major choice for freshmen. Galotti (1999) found that some of the most frequently factors used by students in choosing a major were: How much students care for the subject (79%) and something students do well in (54%). According to these factors, students see the choice of major as one that both reflects important core characteristics of themselves (including their interests, values and their abilities) (Anonymous, 2014, Al Khateeb, 2012; Bartoli & Polance, 2012; Keshishian et al., 2010).

### **Theoretical Framework**

The lens that the researcher was looking through to analyze the factors which influenced students' major choices was the three categories with their components from the survey. These components provided the theory to address the relationship between college major choice and the 12 factors influenced students' choices. The three categories were identified through some of the researchers who were interested in students' major choices (Arcidiacono et al., 2010; Bartolj & Polanec, 2012; Beffy et al., 2012; Beggs et al., 2008; Carnevale & Melton, 2011; DeMarie & Aloise-Young, 2003; Dietz, 2010; Galotti, 1999; García-Aracil et al., 2007; Keshishian et al., 2010; Malgwi et al., 2005; Mohsen, 2013; Pampaloni, 2010; Pringle et al., 2010; Scott-Clayton, 2011; Simoes & Soares, 2010; Simpson, 2003; Song & Glick, 2004; St. John, 2000; Wilcoxson & Wynder, 2010; Wiswall & Zafar, 2011; Zafar, 2013).

The first category was (*Different sources of information & influence category*). The researcher compiled 6 factors from the survey in this category. These factors were: College's reputation in the subject,

parent, high school guidance, university advisor, high school teacher and high school advisor. The second category was (*Characteristics of the job category*). The researcher compiled 3 factors from the survey in this category. These factors were: Potential job opportunities, career advancement and level of payment. The third category was (*Student fit & interest in the subject category*). The researcher compiled 3 factors from the survey in this category. The factors were: Interest in the subject, aptitude in the subject and high school related subjects.

### Purpose of Study

The purpose of the study was to know and understand the sources students use when applying to higher education institutions; in particular, what factors influence student major choice in a gulf area. The three categories presented by the different authors in the literature review; (a) Different sources of information and influence; (b) characteristics of the job and (c) student fit and interest in the subject were the variables in addressing the relationship between the factors and students' major choices. The researcher wanted to explore students' perceptions about what factors mostly affected their college major choices.

The following hypotheses were tested:

- Students will choose majors that are recommended by parents, friends, teachers and advisors.
- Students will choose majors that provide them with potential job opportunities, career advancement and pay them well.
- Students will choose majors that well-match their interest and abilities.

### Methodology

This study used a quantitative design that addresses students' college major choices and the factors influence these choices. The intention of the study was to see how the three categories related to the factors influenced students major choice affected the choice of a major in a gulf area.

### Participants

The 1725 participants in this study consisted of freshman, sophomore, junior and senior students enrolled in five colleges in a Middle East university in a gulf area. There were 469 freshmen, 464 sophomore, 408 junior and 384 senior students. (see Table 1 for the details).

**Table 1: Student Demographics**

Year in School	N	Gender		Age		College				
		Male	Female	17-24	25+	Educ.	Busin.	Law	Pharm.	Eng.
Freshman	469	171	298	411	58	156	78	100	94	41
Sophomore	464	200	264	377	87	83	67	172	77	65
Junior	408	177	231	288	120	62	45	205	49	47
Senior	384	205	179	227	157	37	60	212	40	35

The Participants were 972 female students and 753 male students. There were 469 freshmen, 464 sophomores, 408 juniors and 384 senior students. Their ages ranged between 17 and 50 years (M=22.7). The university has five colleges; College of Education, Humanities and Social Sciences, College of Business Administration, College of Law, College of Pharmacy and College of Engineering and Information Technology. 338 were education students, 250 were business students, 689 were law students, 260 were pharmacy students and 188 were engineering & IT students.

## Instrument

One instrument was used to collect the data for this study: Influences on Choice of Major Survey. This survey was developed by Malgwi, Howe and Burrnaby(2005). They tested the pilot questionnaire to ensure the data gathered were reliable and accurate using the Perseus survey Solutions software to collect the data. Then they refined the document, clarify the questions and instructions to develop the final questionnaire. The researcher sent the authors email asking if she can use their questionnaire in her study. They approved the use of their questionnaire and the modification on the items the researcher needs for her study (See Malgwi, Howe & Burnaby (2005), Influences on students' choice of college major, for the actual survey document). The survey contains 5 items in which the first 4 represents the students' demographics. Item 5 is corresponding to each of the factors that influence student major choice. This item (includes 12 statements) utilizes a (5-point-likert) scale with statements ranging from 1= no influence to 5= major influence.

## Data Collection Procedures

The Data were collected from undergraduate students in the first semester 2014in a Middle East University in a gulf area after getting the approval from the Deans of the five Colleges and the doctors themselves. Data collection consisted of students' survey which was given during class time.

## Instructors

The researcher contacted the professors and the instructors and explained the purpose of her research asking if they were willing to approve their students' participation in taking the survey. They were informed that the survey would take 15 minutes to20 minutes (during their classes). After that, the instructors who were willing to participate were visited by the researcher and were giving the surveys in envelopes. A brief idea about the study was given to them, and the researcher asked the doctors and instructors to leave the envelopes with the secretaries in each college after collecting them from the students. The researcher asked the secretaries to send the surveys to the researcher after receiving them.

## Students

At the beginning of each class, a constructed speech that presented a brief idea about the study was given to the students by the instructors or the researcher herself. Students were giving surveys to complete during classes. Students were informed that the survey would take 15 minutes to20 minutes (during their classes).

## Results

The three hypotheses the researcher analyzed were:

- Students will choose majors that are recommended by parents, friends, teachers, advisors and recruiters (*Different sources of information & influence category*).
- Students will choose majors that provide them with potential job opportunities, career advancement and pay them well (*Characteristics of the job category*).
- Students will choose majors that well-match their interest and abilities (*Student fit &interest in the subject category*).

## Descriptive Statistics

The results were analyzed to determine the influence of the 12 factors on student major choice and to determine if there were any relationships between the factors which influenced students' choices and selecting particular majors. The means and standard deviations are presented for each of these variables.

**Table 2:** Means and Standard Deviations for the factors that influenced the choice of majors by students

	<b>Interest</b>	<b>Aptitude</b>	<b>College reputation</b>	<b>Parents</b>	<b>High school guidance</b>	<b>University advisor</b>
	<b>M (sd)</b>	<b>M (sd)</b>	<b>M (sd)</b>	<b>M (sd)</b>	<b>M (sd)</b>	<b>M (sd)</b>
<b>Students</b>	3.73 (1.4)	3.47 (1.2)	3.40 (1.4)	3.02 (1.6)	2.38 (1.4)	2.30 (1.4)

  

	<b>Related subject</b>	<b>School teacher</b>	<b>School advisor</b>	<b>Job opportunities</b>	<b>Career Advanced</b>	<b>Level of payment</b>
	<b>M (sd)</b>	<b>M (sd)</b>	<b>M (sd)</b>	<b>M (sd)</b>	<b>M (sd)</b>	<b>M (sd)</b>
<b>Students</b>	2.64 (1.46)	2.21 (1.4)	2.08 (1.4)	3.64 (1.3)	3.76 (1.3)	3.54 (1.3)

(N= 1725).

### Hypothesis One

Hypothesis one indicates that students will choose majors that are recommended by parents, friends, teachers, advisors and recruiters (*Different sources of information & influence category*). The researcher compiled 6 factors from the survey under the umbrella of different sources of information & influence category to analyze students' replies. These factors were: *College's reputation in the subject, parent, high school guidance, university advisor, high school teacher and high school advisor*.

**Table 3:** Frequencies of students' replies regarding the 6 factors influenced their choice of majors in all four years(N=1725)

Factors influenced choice of major	No Influence	Minor Influence	Somewhat minor influence	Somewhat major influence	Major Influence
	(1)	(2)	(3)	(4)	(5)
	(N) %	(N) %	(N) %	(N) %	(N) %
1. College's reputation in the subject	(235) % 13.6	(194) % 11.2	(418) % 24.2	(406) % 23.5	(472) % 27.4
2. Parent\ guardian	(489) % 28.3	(185) % 10.7	(295) % 17.1	(304) % 17.6	(452) % 26.2
3. High school guidance	(704) % 40.9	(227) % 16	(320) % 18.6	(227) % 13.2	(197) % 11.4
4. University \ college advisor	(787) % 45.6	(235) % 13.6	(282) % 16.3	(230) % 13.3	(191) % 11.1
5. High school teacher	(835) % 48.4	(239) % 13.9	(284) % 16.5	(185) % 10.7	(182) % 10.6
6. high school advisor	(917) % 53.2	(238) % 13.8	(251) % 14.6	(161) % 9.3	(158) % 9.2

Table 3 introduces the frequencies for each factor that influenced students' choices for their current majors in all four years in the five colleges at the university. Looking at the table, the major influence on students' choices were college reputation and parent factors. High school advisor had the least influence on students when thinking of choosing a major, followed by high school teacher and high school guidance. Table 3 also shares that university advisor had a high percentage of no influence for choosing majors.

**Table 4:** Frequencies of students' replies regarding the 6 factors with major influence degree on their major choices in all four years in the five colleges (N=1725)

College		Parents					
		College Reputation	Parents	High School Guidance	University Advisor	School Teacher	School Advisor
Major Influence	(N)	(N) %	(N) %	(N) %	(N) %	(N) %	(N) %
Education, Humanities & Social Sciences	(338)	(109) % 32.2	(100) % 29.6	(38) % 11.2	(41) % 21.1	(52) % 15.4	(37) % 10.9
College		Parents					
		College Reputation	Parents	High School Guidance	University Advisor	School Teacher	School Advisor
Major Influence	(N)	(N) %	(N) %	(N) %	(N) %	(N) %	(N) %
Business Administration	(250)	(64) % 25.6	(43) % 17.2	(27) % 10.8	(33) % 13.2	(25) % 10	(21) % 8.4
College		Parents					
		College Reputation	Parents	High School Guidance	University Advisor	School Teacher	School Advisor
Major Influence	(N)	(N) %	(N) %	(N) %	(N) %	(N) %	(N) %
Law	(689)	(192) % 27.9	(171) % 24.8	(101) % 14.7	(86) % 12.5	(76) % 11	(78) % 11.3
College		Parents					
		College Reputation	Parents	High School Guidance	University Advisor	School Teacher	School Advisor
Major Influence	(N)	(N) %	(N) %	(N) %	(N) %	(N) %	(N) %
Pharmacy	(260)	(63) % 24.2	(95) % 36.5	(15) % 5.8	(17) % 6.5	(15) % 5.8	(14) % 5.4
College		Parents					
		College Reputation	Parents	High School Guidance	University Advisor	School Teacher	School Advisor
Major Influence	(N)	(N) %	(N) %	(N) %	(N) %	(N) %	(N) %
Engineering & Information Technology	(188)	(44) % 23.4	(43) % 22.9	(16) % 8.5	(14) % 7.4	(14) % 7.4	(8) % 4.3

Table 4 shows that students who chose to major in education, business administration, law and engineering & information technology were influenced by college reputation and parental involvement in their major choices, while students who chose to major in pharmacy were influenced by their parents followed by college reputation.

#### Zero Order Correlation Table

In this study, zero order correlations were created to respond to the 3 hypotheses outlined. For that, Person r correlations were used in this study because they enabled the researcher to describe the relationships between college major choice and the variables used in the survey.

**Table 5:** Zero Order Correlations of the 6 factors influenced students' choosing majors regarding *different sources of information & influence category* (college's reputation in the subject, parent, high school guidance, university advisor, high school teacher, high school advisor (N= 1725)

Year	Parents					
	College Reputation		High School Guidance	University Advisor	School Teacher	School Advisor
	r (p)	r (p)	r (p)	r (p)	r (p)	r (p)
<b>First year College</b>	<b>.093*</b> ( <b>&lt;.044</b> )	.061 ( <b>&lt;.190</b> )	.017 ( <b>&lt;.713</b> )	.057 ( <b>&lt;.218</b> )	-.084 ( <b>&lt;.070</b> )	-.052 ( <b>&lt;.263</b> )
Second Year College	Parents					
	College Reputation		High School Guidance	University Advisor	School Teacher	School Advisor
	r (p)	r (p)	r (p)	r (p)	r (p)	r (p)
<b>Second Year College</b>	-.065 ( <b>&lt;.160</b> )	.040 ( <b>&lt;.393</b> )	.025 ( <b>&lt;.588</b> )	.015 ( <b>&lt;.750</b> )	-.020 ( <b>&lt;.665</b> )	-.057 ( <b>&lt;.217</b> )
Third Year College	Parents					
	College Reputation		High School Guidance	University Advisor	School Teacher	School Advisor
	r (p)	r (p)	r (p)	r (p)	r (p)	r (p)
<b>Third Year College</b>	<b>-.147*</b> ( <b>.003</b> )	.082 ( <b>&lt;.097</b> )	-.078 ( <b>&lt;.116</b> )	-.068 ( <b>&lt;.196</b> )	<b>-.178**</b> ( <b>&lt;.000</b> )	<b>-.102*</b> ( <b>&lt;.040</b> )
Fourth Year College	Parents					
	College Reputation		High School Guidance	University Advisor	School Teacher	School Advisor
	r (p)	r (p)	r (p)	r (p)	r (p)	r (p)
<b>Fourth Year College</b>	-.093 ( <b>&lt;.070</b> )	.085 ( <b>&lt;.097</b> )	.013 ( <b>&lt;.803</b> )	-.064 ( <b>&lt;.211</b> )	<b>-.104*</b> ( <b>&lt;.042</b> )	-.038 ( <b>&lt;.456</b> )

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed)

As presented in the table, College choice has a significant correlation with *college reputation* ( $r=.093$ ,  $p<.044$ ) in the first year. College choice has significant correlations with *college reputation* ( $r=-.$

147,  $p < .003$ ), School teacher ( $r = -.178$ ,  $p < .000$ ) and school advisor ( $r = -.102$ ,  $p < .040$ ) in the third year. College choice has a significant correlation with school teacher ( $r = -.104$ ,  $p < .042$ ) in the fourth year.

**Hypotheses Two**

To answer hypotheses two, the researcher looked at the three factors related to the characteristics of the job. Hypotheses two indicates that students will choose majors that provide them with potential job opportunities, career advancement and pay them well (*Characteristics of the job category*).

**Table 6:** Frequencies of students’ replies regarding the 3 factors influenced their choice of majors (N=1725)

Factors influenced choice of major	No Influence	Minor Influence	Somewhat minor influence	Somewhat major influence	Major Influence
	(1)	(2)	(3)	(4)	(5)
	(N) %	(N) %	(N) %	(N) %	(N) %
1. Potential job opportunities	(195) % 11.3	(137) % 7.9	(339) % 19.7	(469) % 27.2	(585) % 33.9
2. Potential for career advancement	(166) % 9.6	(123) % 7.1	(326) % 18.9	(448) % 26	(662) % 38.4
3. Level of compensation (pay) in this field	(202) % 11.7	(168) % 9.7	(393) % 22.8	(427) % 24.8	(535) % 31

Table 6 introduces the frequencies for each factor included in characteristics of the job category that influenced students’ choices for their current majors in all four years in the five colleges at the university. Looking at the table, potential for career advancement received the highest agreement from the students that influenced their major choices, followed by potential job opportunities and level of compensation in this field.

**Table 7:** Frequencies of students’ replies regarding the 3 factors with major influence degree on their major choices in all four years in the five colleges (N=1725)

College	Career			
	Job Opportunities	Advancement	Level of Payment	
Major Influence	(N)	(N) %	(N) %	(N) %
Education, Humanities & Social Sciences	(338)	(107) % 31.7	(112) 33.1%	(80) 23.7%
Major Influence	(N)	(N) %	(N) %	(N) %
Business Administration	(250)	(113) 45.2%	(120) 48.6%	(97) 38.8%

Major Influence	(N)	Career		
		Job Opportunities	Advancement	Level of Payment
		(N) %	(N) %	(N) %
<b>Law</b>	<b>(689)</b>	(234) 34%	(283) 41.1%	(226) 32.8 %
Major Influence	(N)	(N) %	(N) %	(N) %
<b>Pharmacy</b>	<b>(260)</b>	(83) 31.9%	(92) 35.4%	(76) % 29.2&
Major Influence	(N)	(N) %	(N) %	(N) %
<b>Engineering &amp; Information Technology</b>	<b>(188)</b>	(48) 25.5%	(55) 29.3%	(56) 29.8%

Table 7 shows that students who chose to major in education, business administration, law and pharmacy were influenced by career advancement in their major choices. While students who chose to major in engineering & information technology were influenced by level of payment in their major choices.

Zero Order Correlation Table

The researcher conducted a correlate analysis between college choice and the factors related to characteristics of the job to describe the relationships between these variables used in the survey and college major choice.

**Table 8:** Zero Order Correlations of the 3 factors influenced students' choosing majors regarding the characteristics of the job category (potential job opportunities, potential for career advancement and level of pay in the field) (N= 1725)

Year		Job Opportunities	Career Advancement Level of Pay	
		r (p)	r (p)	r (p)
First year	College	.073	.058	.174**
		(<.116)	(<.209)	(<.000)
Second Year	College	Job Opportunities	Career Advancement Level of Pay	
		r (p)	r (p)	r (p)
Second Year	College	-.102*	-.025	.000
		(<.029)	(<.592)	(<.993)
Third Year	College	Job Opportunities	Career Advancement Level of Pay	
		r (p)	r (p)	r (p)
Third Year	College	-.116*	-.074	.009
		(<.019)	(<.135)	(<.850)
Fourth Year	College	Job Opportunities	Career Advancement Level of Pay	
		r (p)	r (p)	r (p)
Fourth Year	College	.095	.074	.074
		(<.063)	(<.148)	(<.145)

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

As presented in the table, College choice has a significant correlation with *level of pay in the first year* ( $r=.174$ ,  $p<.000$ ). College choice has a significant correlation with *job opportunities* in the second year ( $r=-.102$ ,  $p<.029$ ). In the third year, *major choice* has a significant correlation with job opportunities too ( $r=-.116$ ,  $p<.019$ ).

### Hypothesis Three

Hypothesis three indicates that students will choose majors that well-match their interest and abilities (*Student fit & interest in the subject category*). Frequencies of students' replies to the three factors included in this category were analyzed (*Interest in the subject, aptitude in the subject and high school related subjects*).

**Table 9:** Frequencies of students' replies regarding the 3 factors influenced their choice of majors (N=1725)

Factors influenced choice of major	No Influence (1)	Minor Influence (2)	Somewhat minor influence (3)	Somewhat major influence (4)	Major Influence (5)
	(N) %	(N) %	(N) %	(N) %	(N) %
1. Interest in the subject	(204) % 11.8	(117) % 6.8	(300) % 17.4	(409) % 23.7	(695) % 40.3
2. Aptitude (skill) in the subject	(150) % 8.7	(201) % 11.7	(461) % 26.7	(508) % 29.4	(405) % 23.5
3. High school related subjects	(569) % 33	(273) % 15.8	(355) % 20.6	(259) % 15	(269) % 15.6

Table 9 introduces the frequencies for each factor that influenced students' choices for their current majors in all four years in the five colleges at the university. Looking at the table, interest in the subject has the highest replies and percentages as a major influence for students' choosing a major, followed by students having skills in the subject then high school related subjects factor.

**Table 10:** Frequencies of students' replies regarding the 3 factors with major influence degree on their major choices in all four years in the five colleges (N=1725)

College	(N)	Interest in the Subject	Aptitude in the Subject	High School Related Subject
		(N) %	(N) %	(N) %
<b>Major Influence</b>				
<b>Education, Humanities &amp; Social Sciences</b>	<b>(338)</b>	(133) % 39.3	(87) % 25.7	(76) % 22.5
<b>Major Influence</b>				
<b>Business Administration</b>	<b>(250)</b>	(108) % 43.2	(70) % 28	(26) % 10.4
<b>Major Influence</b>				
<b>Law</b>	<b>(689)</b>	(293) % 42.5	(185) % 26.9	(90) % 13.1

Major Influence	(N)	Interest in the Subject	Aptitude in the Subject	High School Related Subject
		(N) %	(N) %	(N) %
Pharmacy	(260)	(94) % 36.2	(35) % 13.5	(59) % 22.7

  

Major Influence	(N)	Interest in the Subject	Aptitude in the Subject	High School Related Subject
		(N) %	(N) %	(N) %
Engineering & IT	(188)	(67) % 35.6	(28) % 14.9	(18) % 9.6

Table 10 shows that interest in the subject was the most influential major factor for students’ major choices in all five colleges. Looking if there were any relationships between college major choices and these factors, the researcher conducted a correlational analysis.

**Table 11:** Zero Order Correlations of the 3 factors influenced students’ choosing majors regarding student fit & interest category (interest in the subject, aptitude in the subject, high school related subject) (N= 1725)

Year	College	Interest	Aptitude	Related Subject
First year	College	r (p)	r (p)	r (p)
		<b>.096*</b> ( <b>&lt;.038</b> )	.024 ( <b>&lt;.605</b> )	.057 ( <b>&lt;.216</b> )
Second Year	College	r (p)	r (p)	r (p)
		.061 ( <b>&lt;.189</b> )	-.017 ( <b>&lt;.715</b> )	.020 ( <b>&lt;.664</b> )
Third Year	College	r (p)	r (p)	r (p)
		<b>-.101*</b> ( <b>&lt;.042</b> )	<b>-.226**</b> ( <b>&lt;.000</b> )	<b>-.118*</b> ( <b>&lt;.017</b> )
Fourth Year	College	r (p)	r (p)	r (p)
		.007 ( <b>&lt;.893</b> )	<b>-.118*</b> ( <b>&lt;.020</b> )	-.064 ( <b>&lt;.211</b> )

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed)

As presented in the table, College choice has a significant correlation with *interest in the subject* ( $r=.096, p<.038$ ) in the first year. College choice has significant correlations with *interest in the subject* ( $r=-.101, p<.042$ ), *aptitude* ( $r= -.226. p<.000$ ) and *high school related subject*( $r= -.118, p<.017$ ) in the third year. *College choice* has a significant correlation with *aptitude* ( $r= -.118, p<.020$ ) in the fourth year.

## Discussion

The purpose of the study was to know and understand the sources students use when applying to higher education institutions; in particular, what factors influence student major choice in a gulf area. The three categories; (a) Different sources of information and influence; (b) characteristics of the job and (c) student fit and interest in the subject were the variables in addressing the relationships between the factors and students' major choices. The researcher wanted to explore students' perceptions about what factors mostly affected their college major choices.

The researcher primary assumption in this study was: One of the three categories or more (*different sources of information & influence, characteristics of the job and student fit & interest in the subject*) will influence students' major choice in a particular year. Undergraduate students in all four years in the five colleges in a gulf area were the sample for the study.

The first category "Different sources of information & influence" includes 6 factors from the survey that influenced students' major choices. These factors were: College's reputation in the subject, parent or guardian, high school guidance, university or college advisor, high school teacher and high school advisor. Looking at students' responses to the survey, 27.4 % of the students shared that college reputation in the subject was the most influential factor which influenced their decisions to choose the majors they enrolled in. Then, the influence of parent received % 26.2 of students' responses.

Results of the study showed that students who chose to major in education, business administration, law and engineering & information technology were influenced by college reputation and parental involvement in their major choices. Students who chose to major in pharmacy were influenced by their parents followed by college reputation.

Pampaloni (2010) argued students focus more on the universities including its majors which received great candidates in the past and had good reputation from students who attended those universities predicted that a student might choose a major at that university (John, 2000). Adding to this, several studies have concluded that parental influence has a strong effect on major choice (Beggs et al., 2006; García-Aracil et al., 2007; Zafar, 2011; Najmi, 2014). Zafar (2013) found that gaining parents' approval is one of the most important determinants in the choice of major. Garcia-Aracil, Gabaldon and Mora (2007) reported that parents strongly influenced students' choice of majors, and Simpson (2003) found that mothers influence students' choice of academic major through emotional channels. She also found the more value parents place on education; the greater their children will pursue education. Dietz (2010) also shared the influence of family played a larger part on students' major choice.

Looking at the correlational analysis for this category showed that students in their first year focused on college reputation while thinking of choosing a major. In their third year, students shared that the most important factors that they believed to be important factors that help students choosing majors were college reputation and student advising. While in the fourth year, students thought of a school teacher to be one of the most influenced factors for choosing their majors.

The second category (*Characteristics of the job*) includes 3 factors from the survey. These factors were: Job opportunities, career advancement and level of pay. 38.4% of the students shared that potential of career advancement was the most influential factor to choose a major, followed by potential job

opportunities and level of pay after graduation. Malgwi, Howe and Burnaby (2005) found that some students were significantly more influenced by major's potential for career advancement and job opportunities. According to the reviewed literature, future earnings have been measured as the most important characteristics of the job (Arcidiacono, 2011; Bartolj&Polance, 2012; Beffy et al., 2013; Beggs et al., 2006; Carnevale& Melton, 2011; Keshishian et al., 2010; Malgwi et al., 2005; Song &Glick, 2004; Wilcoxson&Wynder, 2010; Wiswall& Zafar, 2011). For that the researcher looked at the correlational analysis for each factor separately for each year alone.

The researcher found that the most significant influence on students in their first year was level of pay ( $r = .174$ ,  $p < .000$ ). While students in the second and third year started to think of job opportunities after graduation. Since almost all students who choose to enroll in higher education to have a degree usually think of the kinds of jobs they will apply to after graduation. Keshishian, Brocavich and Boone (2010) reported in their study 385 of the students chose their majors as a desire to earn a high salary. Arcidiacono, Hotz and Kang (2010) added completion of higher education and the type of college major that students choose directly influences their career opportunities which results in differential earning power (Song and Glick, 2004).

The results also illustrated that students who chose to major in education, business administration, law and pharmacy were influenced by career advancement in their major choices. While students who chose to major in engineering & information technology were influenced by level of payment in their major choices.

Malgwi, Howe and Burnaby (2005) found that some students were significantly more influenced by major's potential for career advancement and job opportunities. According to Bartolj and Polanec (2012), students choose majors with higher streams of future earnings. Keshishian, Brocavich, Boone (2010) reported in a study conducted on first-year students that 385 students chose their majors as a desire to earn a high salary.

The third category (*Student fit & interest*) includes 3 factors from the survey. These factors were: Interest in the subject, aptitude in the subject and high school related subject. 695 (40%) of the students shared that interest in the subject was the most influential factor that affected their major choices, followed by aptitude in the subject and then high school related subject. Looking at students' replies in the different colleges showed that interest in the subject was the most influential major factor for students' major choices in all five colleges, followed by students' skills in the subject.

Looking at the correlational analysis for these variables, students in first year believed that their interest in the subject drive them to choose their majors. Students in the third year shared that all the three factors had an influence on their decision to choose their majors. While students in the fourth year thought of their skills and how well they did in the majors they chose.

Moore and Shulock (2011) and Dietz (2010) believe that passion drive students' life, and tastes for majors are a dominant factor for choosing specific majors by students (Wiswall& Zafar, 2011). Dietz also reported interest in the subject is the primary influence on major choice for freshmen. Zafar (2013) also found that enjoying coursework is one of the most important determinants in the choice of major. Baker and Griffin (2010) shared students choose majors in an area in which they have an intellectual interest.

In their study, Keshishian, Brocavich and Boone (2010) found that one of the reasons that influenced major choice was an interest in the major. Wilcoxson and Wynder (2010) added students choose majors that matched their interests. Beggs, Bantham& Taylor (2006) reported that interest in the field was the determinant that received the highest number of respondents indicating that students were strongly influenced by it (Al Shalwee, 2006). DeMarie and Aloise- Young (2003) found in their study that not a

single student indicated that s/he did not have an interest in the major they chose. This shows that personal interest is a strong influence for a college choice.

Many authors provided evidences showed students' abilities play a role when students start thinking of choosing their majors (Bartolj&Polanec, 2012; Arcidiacono, Hotz& Kang 2010). Students usually choose majors that they can do well in (Anonymous, 2014; Garcia-Aracil, Gabaldon&Mora, 2007). Arcidiacono, Hotz and Kang (2010) also shared that student's ability in the different majors is an important determinant of students' choice of a college major. Song and Glick (2004) found students who achieve higher scores in math in high school are more likely to go to majors related to math.

## Conclusion

The researcher found that students select their majors for many reasons in the gulf area. Some students choose majors that match their abilities, interests, source of information and expected future jobs and earnings. She found that students in all years are looking for majors that will be interesting, provide them with job security and pay them well. Adding to this, comparing the results among the 12 factors, the researcher found that first year students focused on level of pay factor, while second year students focused on job opportunities. Third year students emphasized the importance of having skills in the subject, link an interesting subject at schools to the major, the opportunities of having a job after graduation, the importance of activating school advising and the reputation of the college. Fourth year students believed on having good skills in the majors they chose and following the steps of a teacher they knew in school as a model for them to follow his or her steps in life.

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