



## Factors Affecting University and Course Choice: A Comparison of Undergraduate Engineering and Business Students in Central Punjab, Pakistan

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### ABSTRACT

The higher education environment in Pakistan has become very aggressive and universities have to struggle for recruiting highly intellectual students. The students have become consumerists due to increasing fees of higher education institutes. The primary focus of this study was to uncover the factors that students deem vital related to their choice of university and desired courses. Undergraduate engineering and business students (N=226) from five universities in three cities of central Punjab i.e. Lahore, Faisalabad and Sahiwal, participated in the study. The study used stratified random sampling technique and implied structured questionnaire based on 10 point Likert scale. The study used simple descriptive statistics to verify the importance given by students to these factors. Findings of study revealed that higher education commission ranking, institutional reputation, employment, and career prospects have been found most important allied to desired university and course. As a result of this career focus approach, the students consider prominence, price and programme factors most important among other Ivy's 7 Ps (2007) of universities' marketing mix. The study highlighted the dynamics of undergraduate students' market and commented on implications of marketing of universities thinking to reposition themselves in intense educational markets.

**KEYWORDS:** Course choice, Decision making, Positioning, University choice.

**Article Type:** Research Article

### 1. INTRODUCTION

Pakistan is a developing country and its higher education system is facing challenges. The educational system may try to achieve maximum internal efficiency through the effective management and best possible use of available resources for improving the quality of education. The higher education environment has become a challenge for universities in recruitment of students [1]. The increased course' fee urges students to become consumers and more rational in their decisions relevant to education matters. Now the students have wider alternatives available and they have to choose and make decisions for the right choice. The students consider universities as service providers from where students make purchase of course [2]. Intense competition prevails between universities in recruitment of intelligent students for producing quality end-students and students also face severe competition for getting admissions to prestigious institutions. Due to competitive environment and options available to students, universities should enhance their capabilities to accommodate the students' market. The universities need to behave strategically to attract students and raising their education quality, which have an impact on students' decision of attending a university. The mobile students choose the university with highest education quality. The expansion in higher education has been raised in past years. Table 1 shows the growth in the number of universities and degree awarding institutions (DAIs), over a period of about 60 years [3].

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**Table 1.1 Universities and Degree Awarding Institutions (DAI's)**

Year	Universities		DAIs	
	Public	Private	Public	Private
1947	1	0	0	0
1960	5	0	1	0
1970	8	0	2	0
1980	19	0	2	0
1990	20	2	3	0
2000	32	14	5	8
2007	50	37	9	18

The number of universities in 2007 is as follows:

- 50 public universities.
- 9 public Degree Awarding Institutes (DAIs).
- 37 private HEC recognized universities.
- 18 private Degree Awarding Institutes.

The students' enrolment in universities has increased correspondingly. The number of students attending higher education in universities increases to 807,000 which are about 3.8 percent of the eligible age group. The population of Punjab is approximately 55 percent of total population of Pakistan. The Punjab province has students' enrolment of 102,781 in 2003-2004, while The University of Maryland, USA has students' strength of over 50,000. This put a challenge for higher education in Pakistan. Pakistan does not compete in students' enrolment with its neighbors i.e. India and Iran. India has almost twice enrolment as compared to Pakistan relevant to available age groups [4]. The Pakistani students' enrolment depends upon availability of formally qualified faculty, formally qualified students and funding. There is a weak relationship between formal qualifications and subject competence of faculty members at universities in Pakistan [5]. The Pakistani students consider the Ph.D. faculty in choosing a university or DAIs [6]. The students are worried about the expertise of teachers at universities. What can be done for an English teacher, who cannot speak or write grammatically correct English. The results of study conducted at Bahauddin Zakariya University Multan, revealed that students are dissatisfied with core services & facilities at universities like teaching, administrative support, labs, library, medical, accommodation, and sports [7]. This dilemma provides the basis for conducting a research on students' decision-making.

However, a study conducted in Southampton England, reported three levels at which research on choice & decision making has been conducted i.e. global level, national level and choice of courses [8]. Discussing global level, there is a little number of students coming from overseas in the capital city of Islamabad. However, The International Islamic University and University of Agriculture, Faisalabad attracts little ratio of students from Middle Eastern countries. The law & order situation, terrorism, education system and quality of education are major factors which impede students to start their studies in Pakistan. The factors such as less career opportunities and destroying economies which reduce migration of students to countries like Pakistan [9].

It has been described in past studies that higher education sector has become more market-oriented [10]. Marketing of educational institutions is an emerging area in Pakistan and research is inadequate, which provides motivation to conduct research in this area. The concept of marketing of educational institutions emerged in 1980s in United States and United Kingdom. There is insufficient research existing on positioning, recruiting students and marketing of educational institutions. Researchers and universities have to understand these students' markets and identify how these markets make choice for university & course and what are decision making processes regarding selection of university or course. The objective of this study is to answer the question, i.e. what are determinants behind selection of university or course? The students are end-products of universities because they are integral part of production process of universities and ultimately students offer themselves as products to employers for seeking jobs. So, students are very much concerned in selecting the right university for their perspective studies.

## 2. RESEARCH OBJECTIVES

By and large, the aim of this study is;

- To determine the factors which influence choice of university and course among undergraduate engineering and business students.
- To develop a comparison between students of both fields of study with reference to examining university and course selection factors.
- To inspect feasible implications of findings to higher educational institution positioning, marketing and recruitment of students.

### 3. LITERATURE REVIEW

#### 3.1 Choice and Decision Making of Students

Choice and decision making in higher education has gained greater importance because higher education has become competitive and market-oriented. The results of study conducted in Australia, argued that the enrolment choice heavily depends upon students’ family background, their demographics and shifts from one learning environment to other [11]. They also described that university selection depends upon university policies & values, standards & assessments and expertise of staff. In the course context, course entry requirements, mode of teaching, staff and responses of other registered students in course form the foundation for choice of course. Robinson and Bornholt [11] gave the theory for course pathway that students adopt while in selection of course which is;

$$\text{Pathway Progression} = \text{Student characteristics} \times \text{Time Frame for course} \times \text{Course} \times \text{Choice}$$

On the other hand, it was argued that students’ social and financial background determine the choice for university and course [12]. The choice is not a rational process, which is the central theme to discuss in this study. Choice is influenced by different factors and also has significant affect on decision making. Becker [13] identified in his model that choice for higher education based on assumptions that students calculate the return they got by participating in higher education.

**Table 3.1 Models of the Stages in Consumer Decision Making and Student Choice**

Authors	Consumer Decision Making and Student Choice				
<b>Kotler and Keller (2009)</b>	Problem Recognition	Information Search	Evaluation Alternatives	Purchase Decision	Post-Purchase Behaviour
<b>Chapman (1981)</b>	Pre-search	Search	Application	Choice / Enrolment	-----

Some models believe that personality and subjective judgment of individual have greater influence on decision making. The decision making is generally known in marketing world as purchase behavior of consumers. The individual goes through the process of decision making, from different alternatives to solve his/her problem or fulfilling his/her need to the selection of best option. It has been described the purchase behavior by dividing into different stages including problem recognition, information search, and evaluation of alternatives, purchase decision and post purchase behavior [14]. Chapman [15] was the first who devised the purchase behavior regarding educational institutions and elaborated that students and their parents are gone through different stages in selecting a university or course of their choice. The stages are:

- This stage encompasses students’ early thoughts about their future and students start gathering information about higher education institutions in which they may enroll. In Pakistan, University of Central Punjab and International Islamic University, Islamabad have established their Allied and IIUI schools because these universities are trying to build their position in mind of students in their early school life. The institutions maintain their distinctive positions in the minds of students.
- In this stage, applicants make up a list of potential education providers and start using different sources for gathering information about different suitable alternatives to make up their mind. The universities should increase information opportunities to help them in the search process.
- After selecting the institution, applicants submit their application(s) to a particular educational institution(s). This is a more critical stage and task for institutions at this stage is to engage students with admission office between an offer for admission and enrollment for a course.
- At this stage, the student accepts offer for a course. The institutions should have a meeting, physical or online, with the potential students to make strong relationship with them resulting in owing the institution by students.
- Finally students register themselves with institutions for a course for which they have an offer. The universities arrange fresher’s weeks and international advisory services at very beginning of course as a

part of their marketing activities. This facilitates students to mix up with social life of university and to know about policies and rules of university.

### 3.2 Previous Research

It has been found that students' choice of university is a result of factors such as intended field of study, course & university reputation, institutional reputation and distance from home. While the choice for a course of study depends upon reputation of the course, entry to course, graduate employment rates, graduates satisfaction, quality of teaching, learning & assessment methods and teaching approach. The economic factors such as job opportunities, accommodation costs and financial problems are determinants in decision making of English students for a university or course [16]. Likewise, the fee-payment environment in United Kingdom leads to change in students' & parents' expectations which ultimately make a subsequent change in search-buy behavior of students in course selection and university choice [17]. On the contrast, a study among undergraduate students in Sheffield UK, explored that the course availability, computer availability, library facilities, university teaching reputation, availability of self-study areas & quiet areas and public transport have more influence while location, distance and ranking of university have least influence on university choice [18]. The choice of Indonesian undergraduate students was influenced by the five most important factors i.e. cost, reputation, proximity, job prospect and parents [19].

It has been found in a study conducted among New Zealand business students & US undergraduate students in mid-Atlantic university that different program options availability, flexibility to change the course, degree reputation, cost of accommodation, time to complete degree, graduate employability, campus outer appearance, family & peer influence and word of mouth influence and determine the choice for a university [20]. Further research concluded that student enrolment depends upon personal characteristics of students such as personal goals, interests, needs & values and physical, academic and social characteristics of institutional environment. The students' university and course choice depends upon parents' attitude and unexpected social factors such as failure to meet requirements for a course, achievement of top grades also result in considering other alternatives and getting job leads to additional alternatives. Research conducted among Scottish undergraduate students concluded that academic reputation, location and distance from home have most influence and research reputation, quality of faculty and information supplied by university have least influence in selection of a Scottish university [21]. The school-leavers consider academic reputation, course suitability; job prospectus and teaching quality as most important determinants in their preference of a university in tertiary institutions of Australia [22]. Furthermore, it has been identified that 4 positioning strategies; reputation, image of destination, graduate career prospectus and learning environment have most influence and cultural integration have stumpy influence in university selection criteria for Singaporean and Malaysian students, whereas, Hong Kong students gave most importance to reputation & graduate career prospects and least importance to image of destination & learning environment [23]. The economic factors, personal factors, university related factors, and social factors significantly influence student's choice of university [24].

## 4. METHODOLOGY

### 4.1 Data Collection & Instrument

Stratified random sampling was used for this research from respondents which are students of University of Engineering and Technology Lahore, University of Punjab Lahore, Government College University Faisalabad, University of Agriculture Faisalabad and COMSATS Institute of Information Technology, Sahiwal. Data were collected from university undergraduate students which were existing customers of their particular university. The study implied quantitative research approach, used structured and pre-tested questionnaire based on Likert scale (most important=10, least important=1) to collect the data. The questionnaire was developed based on factors influencing choice for both university and course. For analyses, score of 7-10 aggregated to strong influence; score of 4-6 to moderate influence and score of 1-4 to weak influence, Ten factors were selected for the choice of a course [8]; while thirty two elements for the choice of university [25]. Participants were also asked to identify other factors which were not included in questionnaire which they deemed important. Simple descriptive statistics, mean, standard deviation and variance was used to check differences in importance attached to all these factors. The questionnaires also contained the classification data of participants including age, gender, current subjects, desired subjects and reasons for choosing them, parents' qualification, desired university and reasons behind importance of university education to them.

## 5. FINDINGS OF STUDY

### 5.1 Descriptive Statistics

The two hundred twenty six respondents mainly consisted of male students. The sample was balanced in terms of age (18-22 years) where there was only a minor difference in the age of female students as compared to male

students. The percentage of participation in survey of sixty-two percent male students is greater than 38% female students, whereas, sample had one hundred and sixteen business students and 110 engineering students.

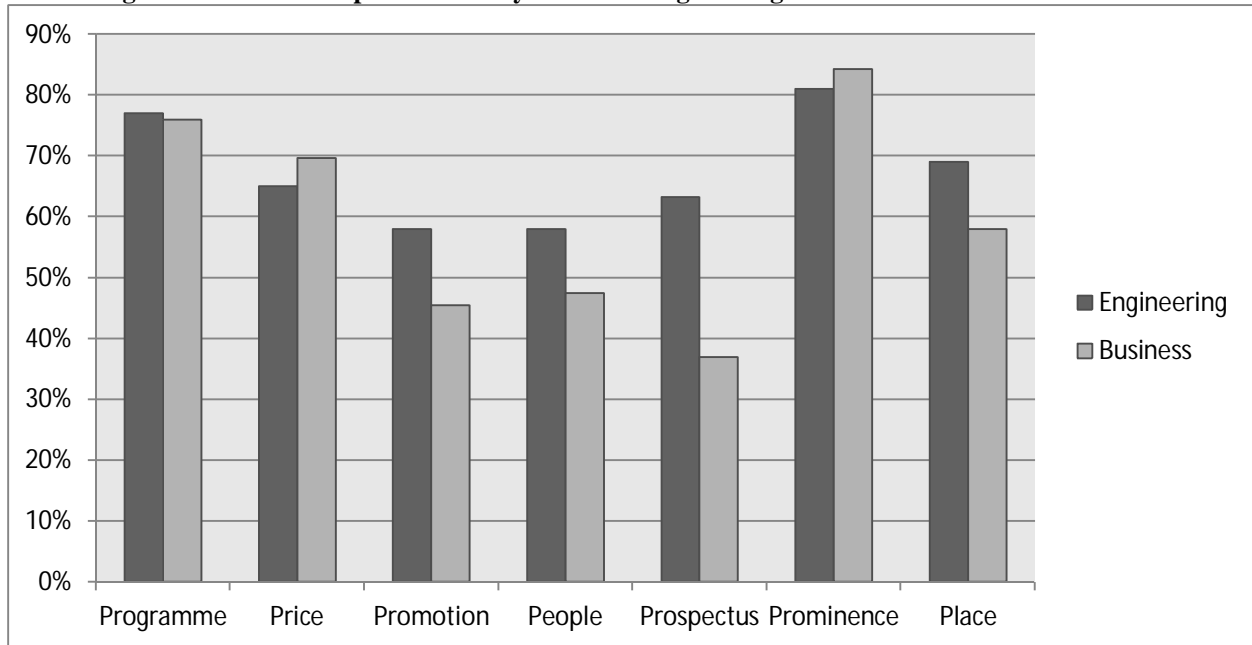
The engineering undergraduate students were from different disciplines of engineering, wherein, Electrical engineering and Chemical engineering were the dominant disciplines. Business students belonged to BBA (Hons.), B.Sc Accounting & Finance and B.Com (Hons.).

**5.2 Factors Affecting University Choice**

Following Ivy’s 7 P’s [18] of MBA marketing, the undergraduate students of both fields were asked to give importance, on 1-10 points scale, to the thirty two elements they give in their decision making process while selecting a university. These thirty two elements were composed into seven categories. The mean score, standard deviation and variance were calculated to know the importance of each factor towards decision process of undergraduate students. The results obtained through PASW (formerly SPSS) Statistics 18.0 are summarized in Table 1. The relative importance students given to each factor in choosing a university is also shown in Figure 1.

Taking 5.5 as the mean point, score of all seven categories is above this midpoint. Prominence and programme seemed to be the most important factors in selection of university for engineering and business students. Promotion & place proved to be the average determinants; price & prospectus are moderate determinants in selection of university for the engineering students. Regarding the factor “programme”, the field of study and desired course apply the greatest impact on university choice. Previous studies’ results have been proved because Pakistani students are more influenced by job opportunities, accommodation costs and financial problems in their judgment about university and course of study.

**Figure 5.1 Relative Importance of Ivy’s 7 P’s of Engineering & Business Students of Pakistan**



Promotion, people and prospectus have least influence in decision making of business students regarding university choice. Price with moderate influence and place with average influence also played their role in selection of educational institution by business students. The fee factor in price is a major player with greater importance. In prominence, the Higher Education Commission (HEC) ranking of university and institutional reputation have a greater influence, whereas students seemed to be less influenced by institutional website, press reviews & staff reputation. The engineering universities with discipline of Chemical Engineering & Mechatronics Engineering preferred their university because of wider lab facilities available on campus.

**Table 5.1 Mean, Standard Deviation & Variance for Engineering & Business Students**

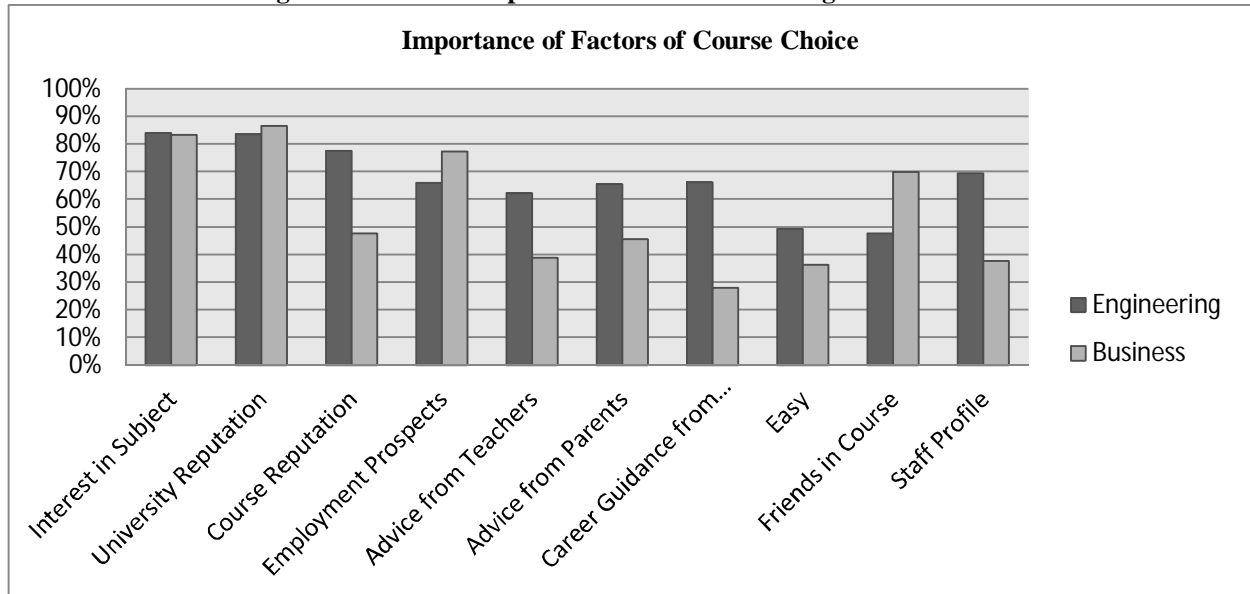
Factors & Key Elements	Mean		Std. Deviation		Variance	
	Engineering	Business	Engineering	Business	Engineering	Business
<b>Programme</b> ( field of study, desired course, majors, degree organization & course structure)	7.7630	7.5704	1.4915	.4177	2.225	.174
<b>Price</b> (fees, efforts to qualify for admission, flexibility in paying fees, opportunities give up, transport & living costs, distance from home and part-time work)	6.4868	6.9788	1.36580	.6590	1.865	.434
<b>Promotion</b> (advertising in media, academic research & teachers' credentials)	5.8519	4.5556	1.4888	1.6198	2.217	2.624
<b>People</b> (alumni & personal contacts, co-education & graduate profiles)	5.8519	4.7531	1.48880	1.0883	2.217	1.185
<b>Prospectus</b> (program booklets & university prospectus)	6.3333	3.7037	2.88231	1.8358	8.308	3.370
<b>Prominence</b> ( institutional reputation, press reviews, staff reputation, HEC ranking & institutional website)	8.1037	8.4370	1.07327	.73388	1.152	.539
<b>Place</b> (campus accommodation, facilities, class size, racial diversity & degree credits)	6.8963	5.8148	1.68374	1.2709	2.835	1.615

The determinant of place also augments the decision of students with the component of campus accommodation holding a greater impact of influencing students. Students, however, don't consider the degree, credits of degree and racial diversity in consideration of their choice. The students with low income and rural background of Sahiwal and Faisalabad preferred universities and courses with low fees and they commented that they chose their particular university and course because there was no other alternative offered in their city.

**5.3 Factors Affecting Course Choice**

The students were asked about factors to which they give significance in choosing a particular course. The students rank university reputation, interest in subject and employment prospectus as the most important determinants, whereas, the factor of course being easy and career guidance from schools the least important factors in choosing a course. Interest in subject and university reputation holds same magnitude for both engineering and business undergraduate students. Course reputation, career guidance and staff profile has significant difference in ranking given by students, and, employment prospects almost hold the same value with little difference. Engineering students do consider their teacher advice while business students prefer those courses in which their friends are going to enroll. Female involvement in business courses is high while male students preferred to join engineering course.

**Figure 5.2 Relative Importance of Factors affecting Course Choice**



## **6. CONCLUSION**

It can be concluded that university undergraduate students have higher proportion of male students and they did not take into account the parents' & teachers' advice and guidance from schools because of their seeking of independence in their life. The universities should take into account the gender based marketing approach due to the different preferences of courses of male and female students. The marketers use variety of demographic segmentation in developing better institutional marketing strategies. The top reason of choosing a course and/or university is aspiration or love for that particular university and course. Selection of a course seems to be the result of student cost-benefit-analysis which is perceived to be the return a course provides after investment. The students consider information provided through prospectus, website, press reviews and other written material as misleading which play an important role in students' decision making. So, it can be concluded that students do not give importance to these traditional promotional tools and universities need to change their promotional marketing strategies. This suggests other ways of university promotion such as blogs & social website tools. The learning environment in campus really matters. The matured universities are products of evolutionary process which should be followed by all Pakistani universities. The students like universities with an open environment, high ethical standards and good reputation. In general, the students are not satisfied with some of provided university services.

## **7. IMPLICATIONS**

Implications for universities are to revise or re-examine strategies related to education funding & scholarships and make necessary arrangements for settlement of students in the industry. The role of career development department has increased and universities need to promote employment rates of courses offered at institution. This also has implications for universities to remove gender boundaries between different courses, provide equal opportunity and make necessary action to motivate students to enroll in all courses irrespective of gender differences found in this study. The promotional tools should be designed based on students' preferences they consider important and not according to universities' policies which they consider important for students. This situation attracts the concentration of Higher Education Commission of Pakistan, Ministry of Education Government of Pakistan, administration of universities to enhance the quality & standards of higher education in the country. However, The attention should be given to important factors not significant ones.

## **8. LIMITATIONS**

The limitations of this study are that application of subsequent two levels of Maringe, 2004 study can be applied to Pakistani context. The students' migration in Pakistan from foreign countries is very limited which does not apply to Felix' study. The generalizability of findings is limited because of small sample size and area selected for sampling. Findings generally report about already known factors with implications to only undergraduate students market.

This study has not examined the decision making abilities of students, offers an area for future research. The information gathered from this study and conclusions made might need further research in other regions of Pakistan. The study is quantitative in nature; therefore require exploratory analysis in order to address remaining research questions which have a greater influence on students' choice of a university and course. The study did not examine the differences between private and public universities/DAIs. Future studies can examine difference of student decisions for public and private universities.

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