

**ANALYSING THE SIGNIFICANT FACTORS WHICH
ARE AFFECTED TO THE SELECTION OF HIGHER
EDUCATION OPPORTUNITIES IN THE PRIVATE
INSTITUTIONS**

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LIST OF ABBREVIATIONS

Abbreviation	Description
ISCED	International Standard Classification of Education
PhD	Doctor of Philosophy
GCE	General Certificate of Education
SLIT	Sri Lanka Institute of Technology
IIT	Informatics Institute of Technology
CIMA	Chartered Institute of Management Accountants
BCS	British Computer Society
ACCA	Association of Chartered Certified Accountants
ICASL	Institute of Chartered Accountants of Sri Lanka
SLIM	Sri Lanka Institute of Marketing
GCSE	General Certificate of Secondary Education
SPSS	Statistical Programme of the Social Sciences
SEM	Structural Equation Modelling
UNLV	University of Nevada, Las Vegas
USA	United States of America
ASQ	Admitted Student Questionnaire
CIRP	Cooperative Institutional Research Programme
MANOVA	Multivariate analysis of variance

TPB	Theory of Planned Behavior
UK	United Kingdom
UGC	University Grant Commission
FA	Factor Analysis
PCA	Principal Components Analysis
EFA	Exploratory Factor Analysis
KMO	Kaiser-Meyer-Olkin

CHAPTER 1 INTRODUCTION

1.1 Background of the research

Higher education is the main factor which is influenced to the future career path of a person. Therefore selecting the higher education has become a turning point of one's life since the decision , taken is affected to the whole life and altering the decision may not be cost feasible and highly time consuming. Taking a decision whether the post secondary education is doing or not and selecting an institution are two critical decisions that students have to make in their lives (Johnson & Chapman, 1979).

In this dynamic society, the economy is becoming more and more complex and cost of living is increased day by day so that education has become the one of the most important Savior to increase the level of living standards of people and on other hand education is one of the key indicators of the development of a country. So that policy makers pay high attention, grant more funds and develop new strategies with regard to the education system of any country.

One of the major concerns of the Mahinda Chinthana is the education of Sri Lanka. It has mentioned that we have the opportunity to make this country, a knowledge hub within the South Asian region and will develop and implement an operational plan to make this country a local and international research and training centre for knowledge and as a result of that more higher education institutions other than the state universities are established in Sri Lanka and in future there can be a huge competition among these institutions. The study will be based on that and directed to find the most significant factors, considered by the public when they are selecting higher education opportunities for them out of the plentiful pogrammes available.

Education in its general sense is a form of learning in which the knowledge, skills, and habits of a group of people are transferred from one generation to the next through

teaching, training, or research. This definition exhibits the importance of the education to make a better tomorrow from the experience which we have today.

Table 1.1 International Standard Classification of Education (ISCED) 1997 levels of education

Level	Description	Principal characteristics
0	Pre-primary education	Initial stage of organized instruction, designed primarily to introduce very young children to a school-type environment and to develop their cognitive, physical, social and emotional skills. Designed for children from age 3 to the start of primary education.
1	Primary education or first stage of basic education	Normally starting between the ages of 5 - 7, designed to give a sound basic education in reading, writing and mathematics along with an elementary understanding of other subjects.
2	Lower secondary education or second stage of basic education	Designed to complete basic education, usually on a more subject-oriented pattern. It builds upon the learning outcomes from primary education (ISCED level 1) and aims to lay the foundation for lifelong learning and human development.
3	Upper secondary education	More specialized education typically beginning at age 15 or 16 years and/or completes secondary education in preparation for tertiary education, or to provide skills relevant to employment, or both.
4	Post-secondary non-tertiary education	Programmes that straddle the boundary between upper- and post-secondary educations from an international point of view. ISCED level 4 programmes, considering their content, cannot be regarded as tertiary programmes. They are often not significantly more advanced than

		programmes at ISCED level 3 but they serve to broaden the knowledge of participants who have already completed a programme at level 3.
5	First stage of tertiary education	Tertiary programmes having an educational content more advanced than those offered at ISCED levels 3 and 4. These programmes may be academically based or practically oriented / occupationally specific. Entry to these programmes normally requires the successful completion of ISCED level 3A or 3B or a similar qualification at ISCED level 4A. All degrees and qualifications are cross-classified by type of programmes, position in national degree or qualification structures and cumulative duration at tertiary.
6	Second stage of tertiary education	Tertiary programmes leading to the award of an advanced research qualification, e.g. Ph.D. These programmes are therefore devoted to advanced study and original research and are not based on course-work only. It typically requires the submission of a thesis or dissertation of publishable quality which is the product of original research and represents a significant contribution to knowledge.

Source:http://en.wikipedia.org/wiki/International_Standard_Classification_of_Education

Table 1.2 ISCED 2011 levels of education and comparison with ISCED 1997

Level	ISCED 2011	Description	Corresponding ISCED 1997 level
0	Early childhood Education (01)	Education designed to support early development in	None

	Early childhood educational development)	preparation for participation in school and society. Programmes designed for children below the age of 3.	
0	Early childhood Education (02 Pre-primary education)	Education designed to support early development in preparation for participation in school and society. Programmes designed for children from age 3 to the start of primary education.	Level 0: Pre-primary education.
1	Primary education	Programmes typically designed to provide students with fundamental skills in reading, writing and mathematics and to establish a solid foundation for learning.	Level 1: Primary education or first stage of basic education.
2	Lower secondary	First stage of secondary education	Level 2: Lower secondary education or second stage of basic education

	education	building on primary education, typically with a more subject-oriented curriculum.	
3	Upper secondary education	Second/final stage of secondary education preparing for tertiary education and/or providing skills relevant to employment. Usually with an increased range of subject options and streams.	Level 3: Upper secondary education
4	Post-secondary non-tertiary education	Programmes providing learning experiences that build on secondary education and prepare for labour market entry and/or tertiary education. The content is broader than secondary but not as complex as tertiary education.	Level 4: Post-secondary non-tertiary education
5	Short-cycle	Short first tertiary	Level 5B: First stage of tertiary

	tertiary education	programmes that are typically practically-based, occupationally-specific and prepare for labour market entry. These programmes may also provide a pathway to other tertiary programmes.	education: typically shorter, more practical/technical/occupationally specific programmes leading to professional qualifications.
6	Bachelor or equivalent	Programmes designed to provide intermediate academic and/or professional knowledge, skills and competencies leading to a first tertiary degree or equivalent qualification.	Level 5A: First stage of tertiary education: largely theoretically based programmes intended to provide qualifications for gaining entry into more advanced research programmes and professions with higher skills requirements.
7	Master or equivalent	Programmes designed to provide advanced academic and/or professional knowledge, skills and competencies leading to a second	Level 5A: First stage of tertiary education: largely theoretically based programmes intended to provide qualifications for gaining entry into more advanced research programmes and professions with higher skills requirements.

		tertiary degree or equivalent qualification.	
8	Doctoral or equivalent	Programmes designed primarily to lead to an advanced research qualification, usually concluding with the submission and defence of a substantive dissertation of publishable quality based on original research.	Level 6: Second stage of tertiary education (leading to an advanced research qualification).

Source:http://en.wikipedia.org/wiki/International_Standard_Classification_of_Education

The study is considered the first stage of tertiary education of ISCED 1997 or Bachelor or equivalent of ISCED 2011 as higher education.

Undergraduate education in state universities of Sri Lanka is free, but extremely competitive, limited and standardized. Only 16% is getting the chance to enter the state university from the total that is qualified to get the university entrance. Selection of students is based on the Z score marks of the GCE(General Certificate of Education) Advanced Level and district basis representation and admission is got by only the top students from each district. Students who have scored well but missed the chance to enter a state university are forced to find other means of higher education. Around 8%

of those who are qualified but could not get admission for higher education go abroad to pursue their studies in foreign universities, others enroll themselves at the Open University of Sri Lanka or at the few state-owned autonomous degree awarding institutes (such as the Sri Lanka Institute of Technology (SLIIT)) or fully private higher education institutes while some study for entrance/membership for professional bodies both foreign (such as Chartered Institute of Management Accountants (CIMA), British Computer Society (BCS), Association of Chartered Certified Accountants (ACCA), etc.) and local (such as Institute of Chartered Accountants of Sri Lanka (ICASL), Sri Lanka Institute of Marketing (SLIM)) or do vocational studies at vocational technical colleges which specialize in mechanical and electronic subjects. The study focuses on the factors which are considered by those students who are joining to higher education institutes other than state universities as described above.

1.2 Significance of the research

Students were given very limited higher education opportunities by the former Sri Lankan education system and all most all of them are government institutions including state universities. Those limited institutions had incredible demand and students compete to select for those. After the Open economy was introduced to the Sri Lanka, the situation was started to change. But the competition to select state universities which are recognized internationally for some of the top level programmes such as Engineering, Medical, Management and Law is still here, because the limited space in those universities. To be the second option so many opportunities are rising in the country. Some state universities which are situated in rural areas, semi government higher education institutions and fully private higher education institutions are competing with each other to attract more students to their place. Some of them are initiating their marketing campaigns to attract students and parents assuming that marketing communication can influence people a lot in their higher education decisions. But there is a doubt on that since no evidence found in Sri Lankan context to prove that students make their higher education related decisions totally based on the marketing

campaigns organized by the said institutes. Therefore the need of a systematic study on these factors is raised and the findings would be timely valuable.

The results would be interested to the post secondary institutions in Sri Lanka which involve in recruiting process of students who are considered as educational consumers. Furthermore a considerable amount of resources are invested by these institutions to attract the best students and the significance and the success of the marketing move towards and the relative consequence of the information disseminated by the institutions to potential students are may yielded by the outcome of the study. The aspects that students consider manipulate are serious to staff working with students throughout the selection procedure and should support advisors in helping students make proper selection, because there is a correlation between the financial revenue/economic condition and the students correct selection of the program. Guesman (cited in Liten, Sullivan, & Brodigan, 1983) explains the selecting an institution as risky because it is an infrequent “purchase” with a high extent of individual significance, somewhat expensive and accomplished with in the limited number of options. So the output of the research may support in developing proper communication connecting the decision maker and the information sources.

1.3 Objectives of the research

- ❖ Identifying the demographic characteristics of the potential students who are seeking higher education opportunities in private higher education institutes in Sri Lanka.
- ❖ Identifying the most important factors which are considered by the students when select higher education opportunities in private educational institutions.

1.4 Research question

- ❖ **Question 1:** Who are the potential students for a particular programme of a private higher education institute in Sri Lanka?

- ❖ **Question 2:** What are the most important factors that private higher education institutes should concern to provide the service to fulfill the customer requirements?

1.5 Limitations of the study

- ❖ This study is limited to the students who are already selected the institutes and the programmes and being continued there studies and not taken the inputs of parents and the students who are expected to start a programme.
- ❖ This study is limited to the Engineering, Medical, Management and Arts areas, because of the limited availability of Physical Science and Bio Science programmes in the institutes which are given the inputs to the study.
- ❖ This study is limited to the higher education institutes which are situated in Colombo district.

1.6 Dissertation outline

Chapter is presented the background of the research, significant of the study, objectives of the study, research question, hypothesis, assumptions, and limitations of the study and dissertation outline. Chapter two contains the review of related literatures and researches related to the problem being investigated. The methodology and procedures used to gather data for the study are presented in Chapter three. The results of analyses and findings to emerge from the study will be contained in Chapter four and in chapter five, the summary of the findings; conclusions drawn from the findings, a discussion, and recommendations for further study are included.

CHAPTER 2 LITERATURE REVIEW

2.1 Literatures related to the dissertation

An extensive study by Beswick, R. L.(1989) which was done to find the factors associated with student choice in the university selection process is mentioned that there is a problem of selecting a postsecondary institution for high school students. Typically many factors had to be considered. Researcher has identified the factors that are considered in the selection process as Closeness to home, Location (e. g. size of city or town), Availability of housing, Cost of living, Tuition costs, Scholarships available, Reputation of institution, Reputation of program, Religious atmosphere, Athletic opportunities, Size of student population, Specialized programs offered, Variety of courses offered, Student/Professor ratio, Family tradition, Preparation for graduate school. Statistical analysis has been used and identified. Value reputation of the institution, Reputation of the program, Variety of courses offered, and Proximity to home as important factors in their choice of University of Alberta. Low student/professor ratio, Low student population, and Reputation of institution were considered by the students of CamroseLutheran College and University of Lethbridge.

An extensive study by Bowers and Pugh (1973) surveyed four thousand Indiana University freshmen and their parents to identify the factors that are considered in the selection process. This study is of particular importance because both parents and students were asked to rate the factors. The ratings were then compared for similarities in judgments. Both groups rated academic reputation of the university and specific reputation of the department or school as the two most important factors in the selection process. Financial, geographical, and academic factors were more important to parents than to students, while students placed more value on social and cultural, and informal factors.

Litten (1979) who appeared to be a foremost researcher in this field has published several studies focusing on marketing concerns in the field has done a study. As per his

studies, the most significant factors for applicants are social atmosphere, academic quality and geographic location.

Litten in 1979 studied the established nature of the market segment or student population from which specific schools drawn. The conclusions of the study were relevant to the dilemma faced by institutions that have identified strengths that are valued by the students and were deciding factors in the selection process. The dilemma involves the choice of capitalizing on those favored factors by strengthening them at the risk of losing those students who valued " the old ways" and other factors.

Similar research at the University of California (cited in Litten & Brodigan, 1982) surveyed students to rate variables and sources of information according to the influence of each factor. Five general categories reported out of the study were: academic program attributes environmental factors, academic support aspects, student life factors, and educational outcomes. Ratings on these factors varied widely.

Another research conducted in 1986 at Washington State University by Sanders identified eight factors that students judged as the most important when selecting a college. These factors were grouped into four categories as; those pertaining to academic environment, the cost/ value added environment, the living environment, and the peer/ adult influence.

Faced with a similar economic situation and in an attempt to enhance the image of Cornell University, Lolli and Scannell(1983) utilized information obtained by collecting data from matriculants who were asked to rate Cornell and their second choice school. Students identified the three most important factors influencing their decision to enroll to be as general reputation of institution, location of campus, and size of student body.

A study by Zain, Jan and Ibrahim (2013) in Factors Influencing Students' Decisions in choosing Private Institutions of Higher Education in Malaysia has used a Structural Equation Modeling Approach. According to that the importance of these institutions is,

they fill the gap caused by limited seating for potential students in government institutions of higher learning. Factor analysis has been used to exact and decide on the number of factors underlying the measured variables of interest. The fitness of the proposed model has been analysed by using the Structural Equation Modelling (SEM) and the same has been used to examine the variables. The conclusion of this research indicates a substantial positive effect of perception and promotion when the students are selecting higher education institution.

A study done by Lee and Chatfield (2012) on the analysis of factors affecting choice of college as a case study of University of Nevada, Las Vegas (UNLV) hotel college students has been identified the factors that influence students' choices among in-state, out-of-state, and international students. Basically seven factors have been identified such as degree benefit, career preparation, media impact and so on. Exploratory factor analysis has been utilized to identify factors and multivariate analysis of variance has been utilized to determine the differences in college choices among the three groups of in-state, out-of-state, and international students. Cost, facilities, and family support have been identified as the significantly important factors of out-of-state students. Media impact is the one which has been significantly impacted for international students. Limited access to school information has been identified as the main reason to come the media impact as the most significant factor for foreign students.

An extensive study done by Kitsaward (2013) on investigation of factors affecting High School Student's Choice of University in Thailand with the purpose of investigating the factors which can be used to influence students' choice of university in Thailand. The research questions which have been used are what factors influence students' choice of university in Thailand? Which attributes or characteristics of the university influence students' opinions and perceptions on university choice? Which individuals influence students' decision making on choice of university? What sources of information do the students use for decision making on choice of university? Both quantitative and qualitative methods have been used to employ a mixed mode methodology. To ensure

the validity and reliability of the questionnaire as a data gathering instrument, a pilot test has been conducted by the researcher. Other than the questionnaire, semi-structured interviews have been conducted to confirm the findings and future explore potentials. As the sampling design, purposive sampling design has been identified by the researcher. Data interpretation and content based analysis have been done by using both descriptive and inferential data analysis for qualitative data. Conclusion made by the descriptive analysis of this research is the majority of the respondents from the selected sample paid the higher interest to public universities and the main factor which was affected that was university atmosphere. Reputation, high technology in all its infrastructure, teaching/ learning facilities, university services were rated as other top important factors when they chose a university. Other than the main factors, adequacy and quality of library resources and services, convenient location, availability of financial aid provided by the university, possibility for a scholarship were the other factors that have been considered by the students. Listing to the parents and friends before making the final decision on higher education institution has been recognized as one of the main conclusion by the researcher.

A study conducted by Khairani and Razak (2013) on Assessing Factors Influencing Students' Choice of Malaysian Public University: A Research Model Analysis has been done to calibrate factors that influence students in their choice of public university. University's image, course offered, facility provided and university's environment were identified as the salient factors. 1584 prospective students from pre-university institutions have been participated to the study. The questionnaire which was included 32 items has been used to measure the mentioned factors. Since it provides the researcher with richer interpretations of the data collected, the Rasch Model analyses were used. University's image has been emerged as the most influential factor as the result of this research.

An extensive study conducted by Mehboob, Shah and Bhutto (2012) on Factors Influencing Student's Enrollment Decisions In Selection of Higher Education

Institutions has been investigated the factors affecting student's enrollment decision when they come across with selection of Higher Education Institutes. This study has been studied these factors to explore those factors that stand out very critical in influencing and determining student's attendance decision in Higher Education Institutes. Three factors have been categorized into eleven sub factors as internal factors (Aspiration, Aptitude, and Career), External factors (Courses, Cost, Location, Reputation, Promotion, and Facilities) and Social factors (parents/friends/teacher). The research has been concluded as all the factors are somehow important in selection of institutes, but the most preferred factor for students is career.

A research conducted recently by Wiese, Heerden and Jordaan (2010) on The Role of Demographics in Students' Selection of Higher Education Institutions with the purpose of investigating the choice factors students consider when selecting a higher education institution, with a focus on the differences between gender and language groups. The several changes which have been seen in the educational landscape, such as stronger competition between institutions for both student enrolments and government funding and its impact on students' institution selection processes has been selected as the problem to investigate. Identifying the most important choice of factors of prospective South African students had been seen as the research objective of this study and also this was aimed to determine if any gender and language differences exist with regard to students' institution selection processes. The quality of teaching at High Education institutes has been identified as most significant factor when the students are selecting higher education institute. Other than that main conclusion, the research has been identified the differences of males and females when they select higher education institute. Language also has been identified as the most important thing which is differentiated the factors that the students are considering when they select higher education institutes.

The Chen and Zimitat (2006) studied on Understanding Taiwanese students' decision-making factors regarding Australian international higher education has been done to

investigate the motivators for Taiwanese students to study higher education in a western society. To shape the intentions for overseas study of Taiwanese students towards higher education in the destination country, the greatest importance has been identified as the attitude or perceptions of them for Australia. The most important factor for USA has been identified as the influence of family and friends and the less importance has been gone to consideration of resources. Since the usefulness and the insights that can be gained from the application of the model to the marketing of transactional education services has been emphasized by the research, the methodology could be adapted to the marketing plans of the institutions.

A market research of Dallas Country Community College District of Massay (1997) on The College Choice Decision Process was done to collect research-based information regarding the student college choice decision process. Individual is not yet thinking about attending college (Baseline Perspective on College), Individual has decided to go to college and needs to start making decisions about college selection (Problem Recognition), Individual seeks information about college options (Information Search), Individual has selected college and enrolled at college (College Selection), Individual is current student at college (Post-Selection Perspective) are identified as the college selection decision process. Parents, friends, high school teachers, siblings and high school counselors were identified as the influencers to attend college and over half of the students were influenced by a former student of that particular college. Information picked up at the college, information mailed per student request and unsolicited information received by mail has been identified as the most helpful information sources for student intakes. Student did not feel ready for college and student need to work/ save money for college were identified as the reasons for delaying college after high school. Convenient location to home, low cost compared to four year university and credits transfer has been identified as the college selection reasons. Speaking with high school students in their classrooms, at college night, mailings to high school students, college campus tours have been identified as the top methods for recruiting

high school students and 67% high school students would most like to speak with a current college student about college.

A research review of Payne (2003) on Choice at the end of compulsory schooling has been reviewed the recent UK literature on when, how and why young people make their choices about post education. This was based on some factors whose importance varies between individuals. The conclusion of the review has been clearly explained the age sixteen is not an appropriate age to make their own decision on higher education which is going to change whole life of them. Theoretical model has been concluded, the decisions were based on constraints – institutional economic or cultural - over which they have no control. This research has been highlighted realistic perception of opportunities, and the young person's own attitudes, predispositions and personal history as important factors. According the review, the proportion of young people who decide very early in their secondary school career to leave education at sixteen is probably smaller now than previous decades. But after making the decision, the probability to change the mind was very less and for most of the young people education was just an instrumental term. There was a very strongly correlation with results in GCSEs and participation in full-time education after age sixteen. Perception of the young people and their actual level of attainment have been linked with young people's attitudes to school. Young people's attitudes towards education have been shaped by the family background and the parents. Since the boundaries within which choices are made have been set by the parents some options have been not considered as possibilities by most of the young people. Parental occupation and parental education have been affected to the probability of staying in education after sixteen. Although social class was also affected to this decision and more educational support has been received by the middle class parents. Young people's choices have been restricted by low family income and feelings. If we consider the gender more girls stay on in education after sixteen than boys. Work based training is selected mostly by the boys than girls. Minority ethnic groups of United Kingdom (UK) are much more likely to stay in full-time education after sixteen than young white people. For this gender

difference and the ethnic difference the reason has been identified as the results of General Certificate of Secondary Education (GCSE). Peer groups like the schoolmates are also affected to the decision on higher education and the path which is going to be selected.

A study of Arpan, Raney and Zivnuska (2003) on a cognitive approach to understand university image employed a cognitive psychological approach to examine a little studies phenomenon, university image among two groups of evaluators. Academic factors, athletic factors, and the extent of news coverage of the university have been identified as the significant predictors which were considered by the students on the university selection. A combined factor including all university attributes (including academic and athletic); the extent of news coverage; the education level of respondents; and the respondents' level of sports fan ship have been identified as the main predictors of parents and non-student sample. Recent research in attitude structure has been used to explain how different image criteria are recalled and employed by the different groups.

The detailed Survey and Focus Group Research to discover about Parents' Roles in the Community College Choice Process has been done by Bers and Galowich in 2002. Substantial communications directly from the college about the children's course choices and academic progresses have been identified as the main expectations of the parents from the colleges.

A research has been conducted on the Information and source preferences of a student market in higher education by Bonnema and Waldt (2008) with the purpose of identifying specific subgroups with similar characteristics within the prospective student (target) market. University, college, employability aspects, course content, student experience, sporting aspects, financial aspects, direct source, media sources and social sources have been identified as the ten information source preferences of students.

CHAPTER 3 METHODOLOGY

3.1 Primary survey

Primary data gathering has been carried out during the research and in deciding the sampling frame it has been identified that, a list of the students who are doing higher education in the private higher education institutes in Sri Lanka has not been maintained by any authority or regulatory body in Sri Lanka. Due to that limitation, initially a list of students who are doing higher education in the private higher education institutes in Sri Lanka has been designed with reference to the number of students who are registered in some private higher education institutions in Sri Lanka.

Target population of the students has been subdivided into five categories based on the programme type that they are studying and six categories identified based on the area of the programme that they are studying as given below.

Five categories of Programme Types

- Degree
- Advance Diploma
- Diploma
- Certificate
- Other

Six categories of the area of Programmes

- Engineering
- Medical
- Physical Science
- Bio Science
- Management
- Arts

Data gathering process has been executed using a questionnaire survey. Self administered questionnaire has been given to the students. Email questionnaire has also been used. It is worthwhile to note that response rate for email questionnaire is relatively low when compared to the self administered postal questionnaire.

The questioner was distributed among 250 students and data was collected with 92% of response rate and only 230 students have been responded and among that one questionnaire has been rejected in data validation process.

3.2 Secondary data analysis

3.2.1 Justification of the theoretical framework

Reliability test has been carried out to check the reliability of the questionnaire. Descriptive analysis has been carried out to check the relationship between the response variable and other explanatory variables. Chi square test for association has been carried out to check the relationship between programme type and the area of programme with the demographic variables. Due to the availability of collinearity between explanatory variables, factor analysis has been carried out using data reduction techniques. To check the reliability of extracted factors, reliability analysis has been carried out. Based on the reliable factors hypothesis testing has been carried out for ordinal data using Kruskal Wallis test. Theories of these statistical methods are discussed in next section in detail.

3.2.2 Reliability analysis

Reliability is that being *Ceteris paribus* OR other things being equal or constant, a person should get the same score on a questionnaire if they complete it at two different points in time should produce results consistent with the overall questionnaire. Cronbach (1951) is a measure that is loosely equivalent to splitting data in two in every possible way and computing the correlation coefficient for each split. The average of these values is equivalent to Cronbach's alpha, α , which is the most common measure of scale reliability. Kline (1999) notes that although the generally accepted value of 0.8 is appropriate for cognitive tests such as intelligence tests, for ability tests a cut-off point

of 0.7 if more suitable. He goes onto say that when dealing with psychological constructs values below even 0.7 can, realistically, be expected because of the diversity of the constructs being measured.

3.2.3 Chi Squared test for association

Null hypothesis of the Chi squared test consider that the cell probabilities (π_{ij}) are equal. For example a sample of size n with cell counts n_{ij} , $\mu_{ij} = \pi_{ij} * n_{ij}$ are expected frequencies. Comparison of n_{ij} and μ_{ij} is been carried out to judge whether data contradicts the null hypothesis of equal cell probabilities. The larger the difference ($n_{ij} - \mu_{ij}$) explains the stronger the evidence against the null hypothesis. The test statistic used to make such comparisons have large-sample chi-squared distribution.

Test statistics is as stated below.

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{(n_{ij} - \mu_{ij})^2}{\mu_{ij}} \dots\dots\dots 3.1$$

$i = 1, 2, 3, \dots, r$ (Rows)

$j = 1, 2, 3, \dots, c$ (Columns)

The test statistic (χ^2) has approximately a Chi-squared distribution with $(r-1)*(c-1)$ degree of freedom for large sample sizes. The p-value is the chi-squared right tail probability above the estimated χ^2 value. The chi-squared distribution has its mean equal to the degrees of freedom (df) and standard deviation of chi squared distribution is $\sqrt{2df}$. With the increase of the degrees of freedom the distribution is spreading out more. The distribution is skewed to the right, but it becomes more normal as the increase of the degrees of freedom. With large samples, a chi-squared test can be used fisher's exact test.

3.2.4 Fisher's Exact test

Fisher's exact test is a statistical test used in the analysis of contingency tables. Although in practice it is employed when sample sizes are small, it is valid for all sample sizes. The significance value it provides is only an approximation, because the sampling distribution of the test statistic that is calculated is only approximately equal to the theoretical chi-squared distribution. The approximation is inadequate when sample sizes are small, or the data are very unequally distributed among the cells of the table, resulting in the cell counts predicted on the null hypothesis (the "expected values") being low. The usual rule of thumb for deciding whether the chi-squared approximation is good enough is that the chi-squared test is not suitable when the expected values in any of the cells of a contingency table are below 5, or below 10 when there is only one degree of freedom (this rule is now known to be overly conservative). In fact, for small, sparse, or unbalanced data, the exact and asymptotic p-values can be quite different and may lead to opposite conclusions concerning the hypothesis of interest.

$$N = \sum_{i=1}^m R_i = \sum_{j=1}^n C_j$$

$R_1, R_2, R_3, \dots, R_m$ = Row values

$C_1, C_2, C_3, \dots, C_n$ = Column values

Then calculate the conditional probability of getting the actual matrix given the particular row and column sums, given by

$$P_{\text{cutoff}} = \frac{(R_1!R_2!\dots R_m!)(C_1!C_2!\dots C_n!)}{N! \prod_{ij} a_{ij}!}$$

which is a multivariate generalization of the hypergeometric probability function. Now find all possible matrices of nonnegative integers consistent with the row and column sums R_i and C_j . For each one, calculate the associated conditional probability using, where the sum of these probabilities must be 1.

3.2.5 Factor Analysis (FA)

The main purpose of factor analysis is explaining correlations among multiple outcomes as the result of one or more underlying explanations, or factors.

Factor analysis is an extension of principal component analysis. The essential purpose of factor analysis is describe the covariance relationships among many variables, but unobservable.

Arguments of factor model

Suppose variables can be grouped by their correlations

Suppose all variables within a particular group are highly correlated among themselves, but have relatively small correlations with variables in a different group

It is conceivable that each group of variables represents a single underlying construct, or factor, that is responsible for the observed correlations

The orthogonal factor model

The observable random vector X , with p components, has mean μ and covariance matrix Σ . The factor model postulates that X is linearly dependent upon a few unobservable random variables F_1, F_2, \dots, F_m , called *common factors*, and p additional sources of variation e_1, e_2, \dots, e_p , called *errors* or, sometimes, *specific factors*. In particular, the factor analysis model is

$$\begin{aligned} X_1 - \mu_1 &= \ell_{11}F_1 + \ell_{12}F_2 + \dots + \ell_{1m}F_m + \varepsilon_1 \\ X_2 - \mu_2 &= \ell_{21}F_1 + \ell_{22}F_2 + \dots + \ell_{2m}F_m + \varepsilon_2 \dots\dots\dots 3.2 \\ &\vdots \\ X_p - \mu_p &= \ell_{p1}F_1 + \ell_{p2}F_2 + \dots + \ell_{pm}F_m + \varepsilon_p \end{aligned}$$

or, in matrix notation,

$$x_{(p \times 1)} - \mu_1 = \underset{(p \times m)}{L} \underset{(m \times 1)}{F} + \underset{(p \times 1)}{\varepsilon} \dots\dots\dots 3.3$$

The coefficient ℓ_{ij} is called the loading of the i^{th} variable on the j^{th} factor, so the matrix L is the matrix of factor loadings. Note that the i^{th} specific factor ε_i is associated only with the i^{th} response X_i . The p deviations $X_1 - \mu_1, X_2 - \mu_2, \dots, X_p - \mu_p$ are expressed in terms of $p + m$ random variables $F_1, F_2, \dots, F_m, \varepsilon_1, \varepsilon_2, \dots, \varepsilon_p$ which are unobservable. This distinguishes the factor model of 3.3 from the multivariate regression model in which the independent variables can be observed. With so many unobservable quantities, a direct verification of the factor model from observations on X_1, X_2, \dots, X_p is hopeless. However, with some additional assumptions about the random vectors F and ε , the model in 3.3 implies certain covariance relationships, which can be checked.

Orthogonal factor model with m common factors

$$\underset{(p \times 1)}{X} = \underset{(p \times 1)}{\mu} + \underset{(p \times m)}{L} \underset{(m \times 1)}{F} + \underset{(p \times 1)}{\varepsilon}$$

μ_i = mean of variable i

ε_i = i^{th} specific factor

F_j = j^{th} common factor

ℓ_{ij} = loading of the i^{th} variable on the j^{th} factor

The unobservable random vectors F and ε satisfy the following condition:

F and ε are independent

$$E(\mathbf{F}) = 0, \text{Cov}(\mathbf{F}) = \mathbf{I}$$

$$E(\varepsilon) = 0, \text{Cov}(\varepsilon) = \Psi$$

Where Ψ is a diagonal matrix

Covariance structure for the orthogonal factor model

$$\text{Cov}(X) = LL' + \Psi \quad \text{or}$$

$$\text{Var}(X_i) = \ell_{i1}^2 + \dots + \ell_{im}^2 + \Psi_i$$

$$\text{cov}(X_1, X_k) = \ell_{i1}\ell_{k1} + \dots + \ell_{im}\ell_{km} \dots \dots \dots 3.4$$

$$\text{cov}(X, F) = L$$

or

$$\text{cov}(X_i, F_j) = \ell_{ij}$$

Methods of estimation

Given observations on generally correlated variables, factor analysis seeks to answer the question, does the factor model with a small number of factors, adequately represent the data? In essence, this statistical model building problem can be tackled by trying to verify the covariance relationship in 3.4. The sample covariance matrix is an estimator of the unknown population covariance matrix. If the off-diagonal elements are small or those of the sample correlation matrix essentially zero, the variables are not related, and a factor analysis will not prove useful. The specific factors play the dominant role in these circumstances. If Σ appears to deviate significantly from a diagonal matrix, then a factor model can be entertained, and the initial problem is one of estimating factor. Two of the most popular methods of parameter estimation are the principal component and the maximum likelihood method. The solution from either method can be rotated in order to simplify the interpretation of factors.

Current estimation and rotation methods require iterative calculations. Several computer programs are available for this purpose.

The principal component method

The spectral decomposition provides us with one factoring of the covariance matrix. Let Σ have eigenvalue-eigenvector pairs with $\lambda_1 \geq \lambda_2 \geq \dots \geq \lambda_p \geq 0$

$$\Sigma = \lambda_1 e_1 e_1' + \lambda_2 e_2 e_2' + \dots + \lambda_p e_p e_p'$$

Factor rotation

All factor loadings obtained from the initial loadings by an orthogonal transformation have the same ability to reproduce the covariance matrix. From matrix algebra, we know that an orthogonal transformation corresponds to a rigid rotation of the coordinate axes. For this reason, an orthogonal transformation of the factor loadings, as well as the implied orthogonal transformation of the factors, is called factor rotation.

Factor scores

In factor analysis, interest is usually centered on the parameters in the factor model. However, the estimated values of the common factors, called factor scores, may also be required. These quantities are often used for diagnostic purposes, as well as inputs to a subsequent analysis. Factor scores are not estimates of unknown parameters in the usual sense. Rather they are estimates of values for the unobserved random factor vectors.

3.2.6 Kruskal Wallis test

Kruskal Wallis test has been used to k independent samples which is an extension to the Mann Whitney test.

Assumptions in Kruskal Wallis Test

- All samples are random samples from their respective populations
- In addition to independence within each sample there is mutual independent among the various samples.
- The measurement scale is at least ordinal.
- Either the k population distribution functions are identical, or else some of the populations tend to yield large values than other populations do.

Test statistic

$$K = \frac{12}{N(N+1)} \sum_{i=1}^g n_i \left(\bar{r}_i - \frac{N+1}{2} \right)^2 \dots\dots\dots 3.2$$

- n_i is the number of observations in group i
- r_{ij} is the rank (among all observations) of observation j from group i
- N is the total number of observations across all groups
- $\bar{r}_i = \frac{\sum_{j=1}^{n_i} r_{ij}}{n_i}$

$\bar{r}_i = \frac{1}{2}(N+1)$ is the average of all the r_i .

CHAPTER 4 ANALYSIS

4.1 Introduction

In analysing the significant factors which are considered in selecting higher education opportunities in private higher education institutions, 250 students have been selected for the sample and a questionnaire has been used in primary data collection process. Out of 250 students, 230 students responded to the questionnaire, with 92% response rate. Face-to-face method, email questionnaire methods have been used in data gathering.

As the study is based on students who are doing their higher education in the private higher education institutions, sample has been categorized into five stratas based on the programme type; degree, advanced diploma, diploma, certificate and others and sixth strata based on the area of the programme; engineering, medical, Physical Science, Bio Science, Management and Arts. The majority of the sample is the students who are doing undergraduate level degrees, which are 86.5 as a percentage. There were a very few numbers of students who are following advanced diploma, diploma, and certificate level programmes in the sample. The lowest representation of the sample is the students who are doing certificate level programmes, which is 0.4 as a percentage. The main reason for the above is the most students who are starting their higher education with the non- state higher education institutions are the students who have already got the advanced level qualification and not get the chance to enter to the state university, because of insufficient capacity of the state universities. The majority of the sample is the students who are doing management, which 57.2 as a percentage. There are a considerable number of students who are following engineering programmes, very few numbers of students who are following medicine, physical science and Arts programmes and no student is following bio science programmes in the sample. The main reason for the above is the insufficient number of programmes in medicine, physical science, bio science and Arts in non-state higher education institutions in Sri

Lanka, because there is few industry demand for such courses and most programmes are developed in Management and Engineering due to the high demand that those have.

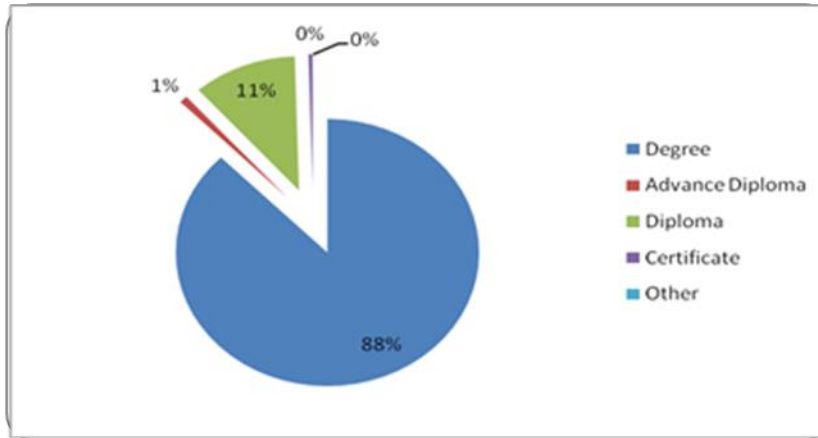


Figure 4.1: Types of the programmes that students are following

According to the above figure 88% students are following degree programmes. 11% students are following diploma programmes. There is no considerable representation from all other programmes.

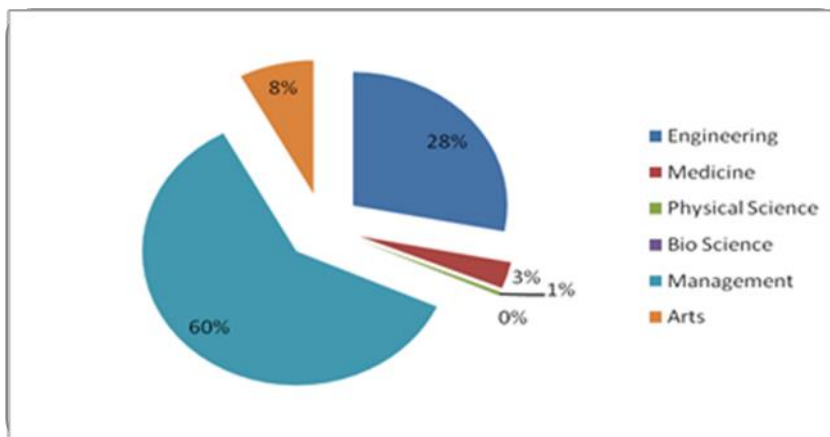


Figure 4.2: Areas of the programmes that students are following

According to the above Figure 60% students are following management programmes. 28% students are following engineering programmes. 8% and 3% are representing Arts

and medicine accordingly. There is no considerable representation from physical science and bio science programme areas.

Table 4.1: Responses of the Students

Description	Strongly agree	Agree	Indecisiveness	Disagree	Strongly disagree
Closeness to home (n = 218)	36 (16.5%)	60 (27.59%)	41 (18.8%)	44 (20.2%)	37 (17.0%)
Location (n = 217)	24 (11.1%)	76 (35.0%)	63 (29.0%)	32 (14.7%)	22 (10.1%)
Availability of housing (n = 209)	19 (9.1%)	86 (41.1%)	48 (23.0%)	35 (16.7%)	21 (10.0%)
Cost of living (n = 213)	19 (8.9%)	77 (36.2%)	53 (24.9%)	49 (23.0%)	15 (7.0%)
The cost (n = 210)	17 (8.1%)	71 (33.8%)	50 (23.8%)	46 (21.9%)	26 (12.4%)
Scholarships available (n = 213) n- sample size	30 (14.1%)	66 (31.0%)	51 (23.9%)	45 (21.1%)	21 (9.9%)
Reputation of institution (n= 210)	49 (23.3%)	62 (29.5%)	21 (10.0%)	50 (23.8%)	28 (13.3%)
Reputation of program (n = 208)	60 (28.8%)	53 (25.5%)	23 (11.1%)	38 (18.3%)	34 (16.3%)
Athletic opportunities (n = 211)	24 (11.4%)	65 (30.8%)	66 (31.3%)	36 (17.1%)	20 (9.5%)
Size of student population (n = 211)	19 (9.0%)	62 (29.4%)	71 (33.6%)	45 (21.3%)	14 (6.6%)
Specialized programs offered (n = 208)	28 (13.5%)	65 (31.3%)	50 (24.0%)	48 (23.1%)	17 (8.2%)
Variety of courses offered (n = 211)	26 (12.3%)	76 (36.0%)	47 (22.3%)	41 (19.4%)	21 (10.0%)
Student/ professor ratio (n = 209)	27 (12.9%)	71 (34.0%)	54 (25.8%)	50 (23.9%)	7 (3.4%)
Family tradition (n = 209)	26 (12.4%)	58 (27.8%)	61 (29.2%)	49 (23.4%)	15 (7.2%)
Specific reputation of the department (n = 207)	36 (17.4%)	64 (30.9%)	42 (20.3%)	53 (25.6%)	12 (5.8%)
Social atmosphere (n = 205)	25 (12.3%)	72 (35.1%)	46 (22.4%)	46 (22.4%)	16 (7.8%)
Academic quality (n = 198)	49 (24.7%)	55 (27.8%)	17 (8.6%)	51 (25.8%)	26 (13.1%)
Academic environment (n = 213)	60 (28.2%)	61 (28.6%)	23 (10.8%)	43 (20.2%)	26 (12.2%)
The living environment (n = 214)	39 (18.4%)	64 (30.2%)	43 (20.3%)	49 (23.1%)	17 (8.0%)
Peer/ Adult influence (n = 209)	22 (10.5%)	57 (27.3%)	65 (31.1%)	48 (23%)	17 (8.1%)
UGC Recognition (n = 217)	49 (23.7%)	43 (20.8%)	51 (24.6%)	35 (16.9%)	29 (14.0%)

In the sample the gender representation is as 65.6% males and 34.4% females. When considering the gender of the students who are following the programmes in the private higher education institutions in Sri Lanka, 65.6% is male and only 34.4% is female of the sample. (See Appendix, Table A1). Stream of the Advanced level subjects of them is varied as Physical Sciences (Mathematics), Bio Sciences, Commerce, Arts and

Technology. Highest number of students has done physical science for their Advance Level studies, which is approximately 49.3% of the sample. (Appendix, Table A2). When considering the Z-Score of the Advanced level examination of the students who have done local Advanced level under the study, in between 0.5 to 1 has been taken by highest number of students, which is approximately 30% of the sample. (Appendix, Table A3). More than 85% of students are doing Degree programmes in the sample. Approximately 11.1% of them are doing diploma programmes as their higher studies in the sample. (Appendix, Table A4). The subject areas of programmes are varied as engineering, medicine, physical sciences, management and Arts. Among them Management has been selected as one of the key area of higher studies which is approximately 60.4% in the sample. (Appendix, Table A5). Education levels of fathers of are varied from below Advanced level up to PhD holders. Advanced level qualification has been the qualification that the most number of fathers have, which is approximately 48.7% in the sample. (Appendix, Table A6). More than 49% of mothers of the students have only the Advanced level qualification. Approximately 21.1% of them have the degree qualification as their highest qualification. (Appendix, A7). When considering the occupation of fathers of the students it is varied as doctor, bank officer, teacher, government officers, employees in private sector, businessmen, engineers, farmers and the employees who are working in abroad. Most of the fathers are doing their own business as the main source of income. (Appendix, A8). Occupation of mother is varied as doctor, bank officer, teacher, government officers, executives of private sector, doing own business, nursing and housing wife in the sample. The most mothers are house wives in the sample, which is approximately 34.4%. (Appendix, A9). The income level of 48% of the respondents is in between Rs. 50,000 to Rs. 100,000 and approximately 23.5% of families have the income level below Rs. 50,000 in the sample. (Appendix, A10). When considering source of pay for college fee, it is varied as self finance, parents, scholarships and bank loans. Highest number of student's way of paying is parents, which is approximately 82.5% in the sample. (Appendix, Table A11). More than 41% of students have faced their advanced level in

the schools which are situated in Colombo district. Approximately 14.7% of students in the sample have studied at Gampaha district. (Appendix, Table A12). School of the advanced level is varied as national schools, provincial schools, semi government schools and private schools. Most number of students has studied at national schools, which is approximately 70.5% in the sample. (Appendix, Table A13). When considering the living district of the students, highest number of students are living in Colombo district, which is approximately 32.3% in the sample. (Appendix, Table A14). Prospectus, website, friends, paper advertisements, TV advertisements, radio advertisements and exhibitions were analysed as the main sources of the course information as below.

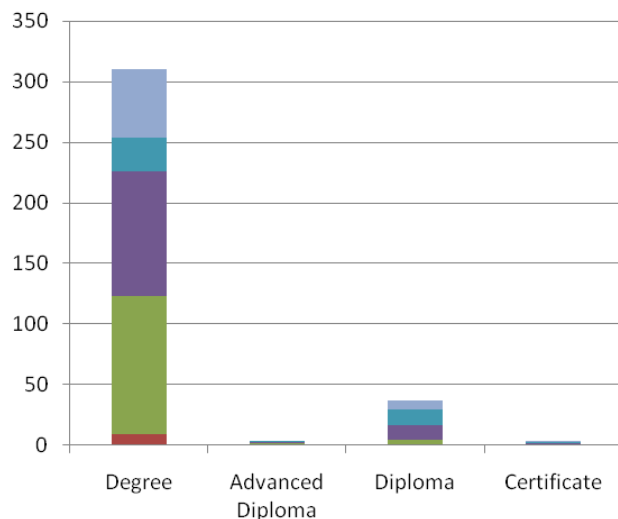


Figure 4.3: Distribution of programme type by source of course information

When considering the source of course information friends and website are the most popular sources. Exhibitions also have considerable contribution to this. As a fourth and fifth contribution advertisements and prospectus can be seen.

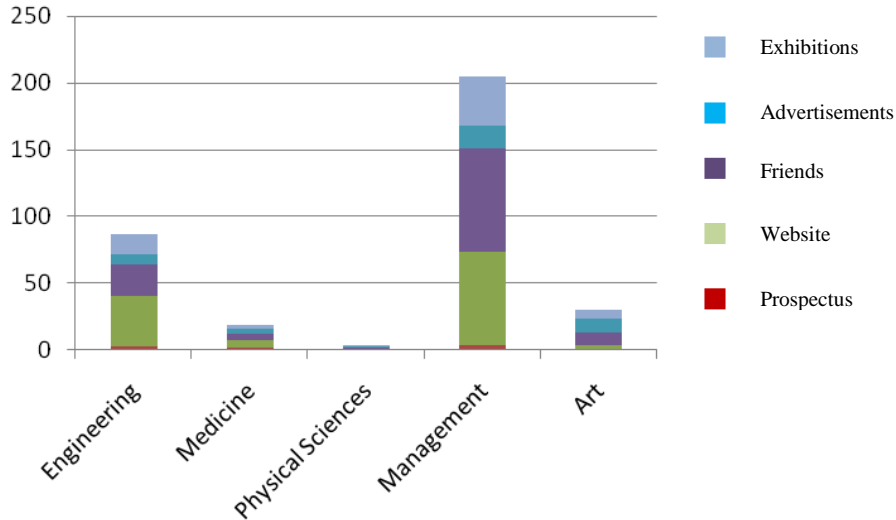


Figure 4.4: Distribution of area type by source of course information

When considering the source of course information “friends” are the most popular source for management students, but for engineering students it is websites. Exhibitions also have considerable contribution to this. As a fourth and fifth contribution advertisements and prospectus can be seen.

4.1.1 Cross Tabulation analysis

In order to summarise the categorical data, a Cross Tabulation analysis was conducted using the responses obtained for various items such as gender, father’s education etc.,

Table 4.2: Distribution of programme type and gender

Gender	Male		Female		Total
	Count	%	Count	%	
Programme Type					Total
Degree	148	74.7%	50	25.3%	198
Diploma	0	00.0%	25	100.0%	25

With reference to the Table 4.2, among the students who are following degree programmes; approximately 74.7% is male students and only 25.3% is female students.

Among the students who are following diploma level programmes; all of them are females and the area considered for diploma programmes is Arts.

Table 4.3: Distribution of area of the programme and gender

Gender	Male		Female		Total
	Count	%	Count	%	Total
Engineering	50	82.0%	11	18.0%	61
Medicine	4	57.1%	3	42.9%	7
Management	94	71.8%	37	28.2%	131
Arts	0	0.00%	17	100.00%	17

With reference to the Table 4.3, Engineering programmes are followed by approximately 85% of male students, medicine programmes are followed by approximately 87.1% male students and management programmes are followed by approximately 71.8% male students. It is worthwhile to note that, Arts programmes are done only by the female students of the sample. Table 4.2 and 4.3 depict that higher education is more preferred by male students

Table 4.4: Distribution of programme type and Education of fathers

Education of fathers	Below Advance Level		Advance Level		Diploma		Bachelors Degree		Masters Degree		PhD		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Total
Degree	6	03.0	97	49.2	30	15.2	49	24.9	13	6.6	2	1	197
Diploma	4	16.0	11	44.0	2	08.0	5	20.0	3	12.0	0	0	25

According to the Table 4.4, majority of fathers is having, advanced level qualification as their highest qualification despite the programme type.

Table 4.5: Distribution of area of the programme and Education of fathers

Education of fathers	Below Advance Level		Advance Level		Diploma		Bachelors Degree		Masters Degree		PhD		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	
Area of the programme													
Engineering	1	01.6	28	45.9	8	13.1	15	24.6	7	11.5	2	3.3	61
Medicine	1	14.3	3	14.9	2	28.6	1	14.3	0	0.0	0	0.0	7
Management	4	03.1	67	51.5	21	16.2	32	24.6	6	04.6	0	0.0	130
Arts	4	23.5	8	47.1	0	00.0	2	11.8	3	17.6	0	0.0	17

As per the Table 4.5, in engineering, management and Arts programmes, majority of fathers are having advance level qualification as their highest qualification. For the medicine programmes majority of fathers are having diploma qualification as their highest qualification.

Table 4.6: Distribution of programme type and Education of mothers

Education of mothers	Below Advance Level		Advance Level		Diploma		Bachelors Degree		Masters Degree		PhD		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	
Programme Type													
Degree	10	05.1	99	50.2	38	19.3	46	23.4	2	1.0	2	1.0	197
Diploma	4	16.0	12	48.0	6	24.0	2	08.0	1	4.0	0	0	25

Table 4.6 depicts that, despite the programme type, majority of mothers is having the advanced level qualification as their highest qualification.

Table 4.7: Distribution of area of the programme and Education of mothers

Education of mothers	Below Advance Level		Advance Level		Diploma		Bachelors Degree		Masters Degree		PhD		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	
Area of the programme													
Engineering	5	08.2	28	45.9	11	18.0	15	24.6	1	1.6	1	1.6	61
Medicine	3	14.3	4	14.9	0	28.6	0	14.3	0	0.0	0	0.0	7
Management	4	03.1	67	51.1	27	20.6	31	23.7	0	00.0	1	0.8	130
Arts	3	17.6	9	52.9	2	11.8	2	11.8	1	5.9	0	0.0	17

With reference to the Table 4.7, in all other programmes other than the medicine programmes, majority of mothers is having advance level qualification as their highest qualification. For the medicine programmes majority of mothers are having diploma

qualification as their highest qualification. Tables 4.4, 4.5, 4.6 and 4.7 are concluded that majority of the parents are having advanced level qualification as their highest qualification.

Table 4.8: Distribution of programme type and occupation of fathers

Occupation of fathers	Government officer		Managers in Private sector		Businessman		Working at abroad		Other		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	
Programme Type											
Degree	88	44.5%	37	19.2%	45	22.7%	4	02.0%	24	12.1	198
Diploma	7	28.00%	5	20.00%	6	24.00%	2	08.0%	5	00.2	25

Reference to the Table 4.8, approximately 44.5% and 28% of fathers of the students who are following degree and diploma programmes are government employees and it is the majority of the sample. Approximately 22.7% and 24% of fathers of the students who are following degree and diploma programmes are businessman and it is the second majority of the sample.

Table 4.9: Distribution of area of the programme and occupation of fathers

Occupation of fathers	Government officer		Managers in Private sector		Businessman		Working at abroad		Other		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	
Programme area											
Engineering	29	43.2%	15	24.6%	6	09.8%	2	01.6%	9	0.1	61
Medicine	3	42.9%	0	00.0%	1	14.0%	0	00.0%	3	42.9	7
Physical Sciences	1	100.0%	0	00.0%	0	00.0%	0	00.0%	0	00.0	1
Management	36	28.9%	23	17.5%	37	28.2%	02	01.5%	33	25.2	131
Arts	4	23.5%	3	17.6%	5	28.6%	1	05.9%	4	23.5	17

Table 4.9 shows that 43.2% from Engineering, 42.9% from medicine and 28.9% from management student's fathers is a government sector employee. Majority of the fathers of Arts students are businessmen. Second majority of the fathers of engineering students is private sector employees and it is approximately 24.6%. Second majority of the

fathers of management students is businessmen and it is approximately 28.2%. Second majority of the fathers of Arts students is also businessmen and it is approximately 28.6%.

Table 4.10: Distribution of programme type and occupation of mothers

Occupation of mothers	Teacher		Government sector		Private sector		Business		House wife		Other		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	
Programme Type													
Degree	35	17.7%	37	11%	11	05.6%	4	02%	66	33.3%	45	22.73	198
Diploma	8	32.0%	1	04%	0	00.0%	0	00%	8	32.0%	8	32.00	25

Table 4.10 shows, despite the programme type, majority of mothers is house wives. But the mothers of students who are doing diploma programmes same number is going to the teachers also.

Table 4.11: Distribution of programme area and occupation of mothers

Occupation of mothers	Teacher		Government officer		Executive in Private sector		Business		House wife		Other		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	
Programme area													
Engineering	16	26.2%	7	11.2%	2	03.3%	2	03.3%	20	32.8%	14	23.0	61
Medicine	0	00.0%	0	00.0%	0	00.0%	0	00.0%	5	71.4%	2	28.6	7
Management	19	14.5%	26	19.9%	9	06.9%	2	01.5%	44	33.6%	31	23.7	131
Arts	5	29.4%	0	00.0%	0	00.0%	0	00.0%	6	35.3%	6	35.3	17

With reference to the Table 4.11, majority of the mothers are housewives. In engineering, management and arts streams, a considerable amount of mothers are teachers in their profession. Tables 4.8, 4.9, 4.10 and 4.11 are concluded that the most fathers are government servants and businessmen and mothers are house wives.

Table 4.12: Distribution of programme type and income of the family

Income of the family	Below Rs. 50,000		Rs. 50,000 – Rs. 100,000		Rs. 100,000 – Rs. 500,000		Rs. 500,000 – Rs. 1,000,000		Above Rs. 1,000,000		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	
Programme Type											
Degree	43	21.7%	96	48.5%	37	18.7%	10	5.1%	1	00.5%	198
Diploma	4	16.0%	15	60.0%	3	12.0%	3	12%	0	00.0%	25

With reference to the Table 4.12, more than 48% of students who are following degree programmes are from the families which have the income level between Rs. 50,000 and Rs. 100,000. Approximately 60% of students who are following diploma programmes are from the same type of families.

Table 4.13: Distribution of programme area and income of the family

Income of the family	Below Rs. 50,000		Rs. 50,000 – Rs. 100,000		Rs. 100,000 – Rs. 500,000		Rs. 500,000 – Rs. 1,000,000		Above Rs. 1,000,000		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	
Programme area											
Engineering	20	32.8%	31	50.8%	4	06.6%	4	6.6%	1	01.6%	61
Medicine	2	28.6%	5	71.4%	0	00.0%	0	0.0%	0	00.0%	7
Management	22	16.8%	61	46.6%	33	25.2%	5	3.8%	0	00.0%	131
Arts	6	35.3%	9	52.9%	2	11.8%	0	0.0%	0	00.0%	17

According to the Table 4.13, more than 50% of engineering students, more than 71% of medicine students, more than 46% of management students and more than 52% of Art students belong to the families which have income between Rs. 50,000 and Rs. 100,000. Tables 4.12 and 4.13 are concluded that most of the families have the income level between Rs. 50000 to Rs. 100000.

Table 4.14: Distribution of programme type and the way of paying college fee

Method of paying college fee	Self finance		Parents		Scholarship		Bank lawn		Total
	Count	%	Count	%	Count	%	Count	%	
Programme Type									
Degree	13	06.6%	169	85.4%	2	01.0%	12	06.1%	198
Diploma	10	40.0%	14	56.0%	0	00.0%	0	00.0%	25

Table 4.14 shows that the “parents” is the major source of paying college fee among the majority of the sample of degree and diploma.

Table 4.15: Distribution of programme area and the way of paying college fee

Method of paying college fee	Self finance		Parents		Scholarship		Bank lawn		Total
	Count	%	Count	%	Count	%	Count	%	
Engineering	5	08.2%	46	75.4%	0	00.0%	9	14.8%	61
Medicine	6	85.7%	0	00.0%	0	00.0%	0	00.0%	7
Management	3	02.3%	122	93.1%	2	01.5%	3	02.3%	131
Arts	7	41.2%	10	58.8%	0	00.0%	0	00.0%	17

Table 4.15 represents the source of paying college fee in different academic programmes disciplines. Among the majority of the sample taken for the study, “parents” are the main source of paying college fee among engineering, management and arts students but 85.7% medicine students (Majority of medicine students of the sample are not the students who are following degree programmes. Most of them are doing advanced diplomas) are using their own money to do their higher studies. Tables 4.14 and 4.15 are concluded that the main source of the funding for the students is parents.

Table 4.16: Distribution of programme type and the district of the school that advance level has been done

District of school	Programme type	Degree	Diploma
Colombo	Count	83	8
	%	41.9%	32.0%
Galle	Count	11	1
	%	05.6%	04.0%
Kalutara	Count	7	1
	%	03.5%	04.0%
Matara	Count	6	2
	%	03.0%	08.0%
Monaragala	Count	2	0
	%	01.0%	00.0%
Puttalam	Count	3	4
	%	01.5%	16.0%
Kandy	Count	18	0
	%	09.1%	00.0%
Anuradhapura	Count	4	0

	%	02.0%	00.0%
Gampaha	Count	29	0
	%	14.6%	16.0%
Kurunegala	Count	10	1
	%	05.1%	04.0%
Ratnapura	Count	5	2
	%	02.5%	08.0%
Badulla	Count	5	0
	%	02.5%	00.0%
Matale	Count	0	1
	%	00.0%	04.0%
Hambantota	Count	2	0
	%	01.0%	00.0%
Jafna	Count	1	0
	%	00.5%	00.0%
Trincomalee	Count	2	0
	%	01.0%	00.0%
Nuwaraeliya	Count	1	1
	%	00.5%	04.0%
Kegalle	Count	7	0
	%	03.5%	00.0%
Total	Count	198	25
	%	100%	100%

With reference to the Table 4.16, more than 41% Degree students are from the schools of Colombo and approximately 32% of diploma students are also from the schools of Colombo. As the second, considerable number of students can be seen from the schools which are situated in Gampaha for both degree and diploma programmes.

Table 4.17: Distribution of programme area and the district of the school where advanced level examination has been done

District of school	Programme area	Engineering	Medicine	Management	Arts
Colombo	Count	22	2	60	6
	%	36.1%	28.6%	45.8%	35.3%
Galle	Count	4	0	8	2
	%	06.6%	00.0%	06.1%	11.8%
Kalutara	Count	0	0	7	1
	%	00.0%	00.0%	05.3%	05.9%
Matara	Count	4	0	2	0
	%	06.6%	00.0%	01.5%	00.0%
Monaragala	Count	0	1	0	0
	%	00.0%	14.3%	00.0%	00.0%

Puttalam	Count	0	0	3	1
	%	00.0%	00.0%	02.3%	05.9%
Kandy	Count	6	0	11	1
	%	09.8%	00.0%	08.4%	05.9%
Anuradhapura	Count	2	1	1	0
	%	03.3%	14.3%	00.8%	00.0%
Gampaha	Count	11	0	18	3
	%	18.0%	00.0%	13.7%	17.6%
Kurunegala	Count	1	1	7	0
	%	01.6%	14.3%	05.3%	00.0%
Ratnapura	Count	1	1	4	1
	%	01.6%	14.3%	03.1%	05.9%
Badulla	Count	2	0	3	0
	%	03.3%	00.0%	02.3%	00.0%
Matale	Count	0	0	0	1
	%	00.0%	00.0%	00.0%	05.9%
Hambantota	Count	1	0	1	0
	%	01.6%	00.0%	08.00%	00.0%
Jaffna	Count	1	1	0	0
	%	01.6%	01.0%	00.0%	00.0%
Trincomalee	Count	1	0	1	0
	%	01.6%	00.0%	00.8%	00.0%
Nuwaraeliya	Count	0	0	1	1
	%	00.0%	00.0%	00.8%	05.9%
Kegalle	Count	3	0	4	0
	%	04.9%	00.0%	03.1%	00.0%
Total	Count	61	7	131	17
	%	100%	100%	100%	100%

The Table 4.17 depicts that there are more than 26% engineering students, more than 28% of medicine students and more than 45% of management students are from the schools of Colombo. As a second, considerable number of students can be seen from the schools which are situated in Gampaha for all the three. Tables 4.16 and 4.17 are concluded that the most of the students are from the schools of Colombo.

Table 4.18: Distribution of programme type and the type of the school where the advanced level examination has been done

Type of the school	National		Provincial		Semi government		Private		Total
	Count	%	Count	%	Count	%	Count	%	
Programme Type									
Degree	142	71.7%	37	18.7%	6	03.0%	9	04.5%	198
Diploma	14	56.0%	8	32.0%	2	08.0%	1	04.0%	25

With reference to the Table 4.18, more than 71% Degreelevel students, approximately 56% from diploma level students are from the national schools of Sri Lanka. Considerably a large number of diploma level students can be seen from provincial schools also, which is approximately 32%.

Table 4.19: Distribution of programme area and type of the school which the advance level has been done

Type of the school	National		Provincial		Semi government		Private		Total
	Count	%	Count	%	Count	%	Count	%	
Programme area									
Engineering	51	83.6%	6	09.8%	0	00.0%	2	03.3%	61
Medicine	7	100.0%	0	00.0%	0	00.0%	0	00.0%	7
Management	86	65.6%	31	23.7%	6	04.6%	7	05.3%	131
Arts	8	47.1%	7	41.2%	1	05.9%	0	00.0%	17

With reference to the Table 4.19, approximately 83% engineering students, approximately 65% management students, approximately 47% Arts students and 100% medicine students are from national schools. Considerable number of Arts students can be seen from the provincial schools also, which is approximately 41.2%. Tables 4.18 and 4.19 are concluded that the most of the students are from the national schools.

Table 4.20: Distribution of programme type and the living area

Living area	Programme type	Degree	Diploma
Colombo	Count	64	8
	%	32.3%	32.0%
Galle	Count	12	1
	%	06.1%	04.0%
Kalutara	Count	8	0
	%	04.0%	00.0%
Matara	Count	7	2
	%	03.5%	08.0%
Monaragala	Count	2	0
	%	01.0%	00.0%
Puttalam	Count	3	4
	%	01.5%	16.0%
Kandy	Count	16	0
	%	08.1%	00.0%
Anuradhapura	Count	4	0
	%	02.0%	00.0%
Gampaha	Count	42	4
	%	21.2%	16.0%
Kurunegala	Count	9	1
	%	04.5%	04.0%
Ratnapura	Count	5	2
	%	02.5%	08.0%
Badulla	Count	5	0
	%	02.5%	00.0%
Matale	Count	2	1
	%	01.0%	04.0%
Hambantota	Count	2	0
	%	01.0%	00.0%
Jaffna	Count	1	0
	%	00.5%	00.0%
Trincomalee	Count	3	0
	%	01.5%	00.0%
Nuwaraeliya	Count	2	1
	%	01.0%	04.0%
Kegalle	Count	7	1
	%	03.5%	04.0%
Total	Count	198	25
	%	100%	100%

The Table 4.20 shows that more than 32% Degree level students are from Colombo district and approximately 32% of diploma level students are from Colombo. The second considerable number of students can be seen from Gampaha district for Degrees programmes and Gampaha and Puttalam for diploma programmes.

Table 4.21: Distribution of programme area and the living area

Living area	Programme area	Engineering	Medicine	Management	Arts
Colombo	Count	17	1	47	5
	%	27.9%	14.3%	35.9%	29.4%
Galle	Count	4	0	9	2
	%	06.6%	00.0%	06.9%	11.8%
Kalutara	Count	0	0	8	0
	%	00.0%	00.0%	06.1%	00.0%
Matara	Count	4	0	3	0
	%	06.6%	00.0%	02.3%	00.0%
Monaragala	Count	0	1	0	0
	%	00.0%	14.3%	00.0%	00.0%
Puttalam	Count	0	0	3	1
	%	00.0%	00.0%	02.3%	05.9%
Kandy	Count	6	0	9	1
	%	09.8%	00.0%	06.9%	05.9%
Anuradhapura	Count	2	1	1	0
	%	03.3%	14.3%	08.0%	00.0%
Gampaha	Count	15	1	26	4
	%	24.6%	14.3%	19.8%	23.5%
Kurunegala	Count	0	1	7	0
	%	00.0%	14.3%	05.3%	00.0%
Ratnapura	Count	1	1	4	1
	%	01.6%	14.3%	03.1%	05.9%
Badulla	Count	2	0	3	0
	%	03.3%	00.0%	02.3%	00.0%
Matale	Count	0	0	2	1
	%	00.0%	00.0%	01.5%	05.9%
Hambantota	Count	1	0	1	0
	%	01.6%	00.0%	00.8%	00.0%
Jaffna	Count	1	1	0	0
	%	01.6%	14.3%	00.0%	00.0%
Trincomalee	Count	2	0	1	0
	%	03.3%	00.0%	00.8%	00.0%
Nuwaraeliya	Count	0	0	2	1
	%	00.0%	00.0%	01.5%	05.9%
Kegalle	Count	3	0	4	1
	%	04.9%	00.0%	03.1%	05.9%
Total	Count	61	7	131	17
	%	100%	100%	100%	100%

With reference to the Table 4.21, more than 27% engineering students, more than 35% management students and 29% Arts students are from Colombo district. The second considerable number of students is from Gampaha district for both. Tables 4.20 and 4.21 depicts that the most of the students are from Colombo district.

4.1.2 Summary of Cross Tabulation analysis

When considering the gender of the students who are following the programmes in the higher education institutions in Sri Lanka other than the state universities, 65.6% is male and only 34.4% is female in the sample. Education level of the father of the students is varied from below Advanced level to PhD level. Advanced level qualification has been seen as the qualification that the most number of fathers have, which is approximately 48.7% in the sample. More than 49% of mothers of the students have only the Advanced level qualification as their highest qualification. Approximately 21.1% of them have the Degree qualification as their highest qualification in the sample. The occupation of the fathers of the students it is varied as doctors, bank officers, teachers, government officers, managerial level employees in private sector, businessmen, engineers, farmers and employees who are working abroad. Most of the fathers are government employees and as the second most fathers are doing their own businesses as the main income source to their families in the sample. Occupation of mothers is varied as doctors, bank officers, teachers, government officers, executives of private sector, doing own businesses, nurses and house wives in the sample. The most number of mothers are housewives in the sample, which is approximately 34.4%. More than 48% of families of the students are the families which have the income in between Rs. 50,000 to Rs. 100,000. Approximately 23.5% of families have the income below Rs. 50,000 in the sample. When considering the way of paying the college fee, it is varied as self finance, parents, scholarships and bank loans. The highest number of students' source of paying course fee is parents, which is approximately 82.5% in the sample. More than 41% of students have faced their advanced level in the schools which is situated in the Colombo districts. Approximately 14.7% of students have studied at Gampaha district in the sample. School of the advanced level is varied as national schools, provincial schools, semi government schools and private schools. The most number of students has studied at national schools, which is approximately 70.5% in the sample. When considering the living district of the students, the highest number of students is living in Colombo district, which is approximately 32.3% in the sample.

4.1.3 Chi Squared test for association

In order to check the relationship between the programme type and the programme area with the demographic variables, a chi-square test was conducted using the responses obtained for various items such as gender, father's education etc,. Since the sample is large, a chi-squared test has used fisher's exact test.

H₀: Programme type is independent from the ith variable

H₁: Programme type is depending on the ith variable

ith variable – Gender, Education of the fathers, Education of the mothers, Income of the family, The way of paying college fee, District of the school, Type of the school, Living area

Table 4.22: Relationship between programme type and the demographic variables

Variable Name	Fisher's Exact Test Statistics	P- Value
1. Gender	61.458	0.000
2. Education of the fathers	3.854	0.554
3. Education of the mothers	6.463	0.500
4. Income of the family	31.682	0.255
5. The way of paying college fee	49.806	0.000
6. District of school	5.880	0.278
7. Type of school	20.309	0.661
8. Living area	5.427	0.301

Only gender and the way of paying college fee are highly significant to the programme type.

H_0 : Programme area is independent from the i^{th} variable

H_1 : Programme area is depending on the i^{th} variable

i^{th} variable – Gender, Education of the fathers, Education of the mothers, Income of the family, The way of paying college fee, District of the school, Type of the school, Living area

Table 4.23: Relationship between programme area and the Demographic variables

Variable Name	Fisher's Exact Test Statistics	P- Value
1. Gender	44.618	0.000
2. Education of the fathers	10.421	0.199
3. Education of the mothers	9.639	0.363
4. Income of the family	13.009	0.087
5. The way of paying college fee	74.223	0.000
6. District of school	13.007	0.007
7. Type of school	26.881	0.040
8. Living area	13.322	0.006

Gender, the way of paying college fee, district of school, type of school and living area are highly significant to the programme area.

4.2 Advanced analysis

4.2.1 Factor Analysis

In order to explore the factors which are considered by general public when they select higher education institution, a Factor analysis has been conducted using the responses obtained for various items such as peer/ adult influence, UGC (University Grant Commission) recognition etc.,.

Table 4.24: Descriptive Statistics

	Median	Meaning
Closeness to home	5	Strongly Agree
Location (Size of city or town)	3	Neither agree or disagree
Availability of housing	3	Neither agree or disagree
Cost of Living	4	Agree
Cost	5	Strongly agree
Scholarship Available	4	Agree
Reputation of institution	3	Neither agree or disagree
Reputation of programme	2	Disagree
Athletic Opportunities	4	Agree
Student Population	3	Neither agree or disagree
Specialised Programmes	2	Disagree
Variety of course offered	3	Neither agree or disagree
Student Professor Ratio	3	Neither agree or disagree
Family Tradition	2	Disagree
Specific reputation of the department	2	Disagree
Social Atmosphere	3	Neither agree or disagree
Academic Quality	2	Disagree
Academic Environment	1	Strongly disagree
Living Environment	1	Strongly disagree
Peer Adult Influence	2	Disagree
UGC Recognition	2	Disagree

Table 4.25: Kaiser-Meyer-Olkin(KMO) and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.925
Bartlett's Test of Sphericity	Approx. Chi-Square	3.486E3
	df	210
	Sig.	.000

KMO and the Bartsslett's test have been used to measure the strength of the relationship among variables. KMO test statistics measure the sample adequacy. As KMO test statistic is greater than 0.5, it can be concluded that sample size is adequate for a satisfactory factor analysis to proceed. As p-value of the Bartsslett's test is 0.000, null hypothesis is rejected. It can be concluded that, correlation matrix is not an identity matrix which further supports the strength of the relationship among variables used in factor analysis.

Table 4.26: Communalities

Description	Extraction
Closeness to home	.883
Location (Size of city or town)	.860
Availability of housing	.960
Cost of Living	.855
Cost	.882
Scholarship Available	.791
Reputation of institution	.851
Reputation of programme	.853
Athletic Opportunities	.760
Student Population	.754
Specialised Programmes	.800
Variety of course offered	.835
Student Professor Ratio	.799
Family Tradition	.849
Specific reputation of the department	.696
Social Atmosphere	.814
Academic Quality	.901
Academic Environment	.850
Living Environment	.795
Peer Adult Influence	.808
UGC Recognition	.777
Extraction Method: Principal Component Analysis.	

Communality Table shows how much of the variance in the variables has been accounted for by the extracted factors. 86% of the variance in location is accounted for while 88.3% of the variance in closeness to the home is accounted for.

Table 4.27: Total variance explained

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	10.263	48.870	48.870	10.263	48.870	48.870	7.136	33.980	33.980
2	2.086	9.933	58.803	2.086	9.933	58.803	3.082	14.678	48.658
3	1.168	5.561	64.364	1.168	5.561	64.364	2.259	10.756	59.414
4	1.019	4.854	69.218	1.019	4.854	69.218	2.059	9.804	69.218
5	.911	4.338	73.556						
6	.758	3.612	77.168						
7	.603	2.873	80.041						
8	.566	2.693	82.734						
9	.503	2.394	85.129						
10	.460	2.192	87.321						
11	.440	2.097	89.418						
12	.346	1.645	91.063						
13	.342	1.629	92.692						
14	.288	1.372	94.063						
15	.239	1.137	95.200						
16	.232	1.106	96.306						
17	.202	.963	97.269						
18	.183	.871	98.141						
19	.174	.830	98.970						
20	.124	.590	99.561						
21	.092	.439	100.000						

Extraction Method: Principal Component Analysis.

First factor accounts for 48.870% of the variance, the second 9.933%, the third 5.561% and the fourth 4.854%. The total variance explained by the factor model is 69.218%.

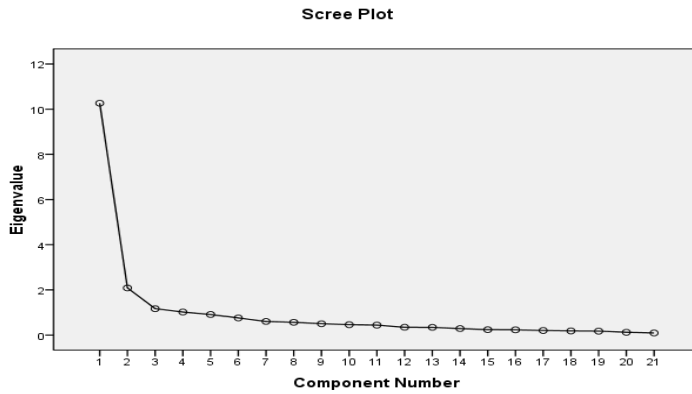


Figure 4.5: Scree plot

Scree plot helps to determine how many factors to retain. It can be seen that the curve begins to flatten between factor four and factor five. So, only four factors have been retained.

Table 4.28: Rotated component matrix

	Component			
	1	2	3	4
Closeness to home	.013	.100	.118	.875
Location (Sise of city or town)	.123	.187	.108	.869
Availability of housing	.126	.214	.767	.143
Cost of Living	.352	.142	.698	.288
Cost	.553	.133	.533	-.007
Scholarship_Available	.213	.584	.404	.135
Reputation of institution	.876	.196	.141	.059
Reputaion of programme	.890	.092	.169	.010
Athletic_Opportunities	.103	.837	.079	.161
Student_Population	.334	.731	.128	.149
Specialised_Programmes	.712	.473	.063	.098
Variety of course offered	.750	.380	.071	.119
Student_Professor_Ratio	.607	.516	.175	.165
Family_Tradition	.299	.322	.262	.458
Specific reputation of the department	.694	.320	.164	.140
Social_Atmosphere	.602	.365	.178	.184
Academic_Quality	.895	.067	.202	.110
Academic_Environemnt	.875	.129	.184	.117
Living_Environment	.739	.177	.322	.122
Peer_Adult_Influence	.274	.514	.386	.106
UGC_Recognition	.623	.207	.381	.009

Rotation is used to reduce the number of factors on which the variables under investigation have high loadings which makes the interpretation of the analysis easier. According to the rotated factor loadings, 21 variables can be categorized for extracted eight factors as shown in the below Table.

Table 4.29: Identified four factors

Description	1	2	3	4
FACTOR 1 – Study Programme				
Cost	.553			
Reputation of institution	.876			
Reputation of programme	.890			
Specialised programmes	.712			
Variety of course offered	.750			
Student Professor Ratio	.607			
Specific reputation of the department	.694			
Social Atmosphere	.602			
Academic Quality	.895			
Academic Environment	.875			
Living Environment	.739			
UGC Recognition	.623			
FACTOR 2- Influence				
Scholarship Available		.584		
Athletic Opportunities		.837		
Student Population		.731		
Peer Adult Influence		.514		
FACTOR 3- Accommodation				
Availability of housing			.767	
Cost of Living			.698	
FACTOR 4 – Attitudes				
Closeness to home				.875
Location (Size of city or town)				.869
Family Tradition				.458

Factor one can be named as Study Programme and below variables has been categorized under Factor one

- Cost
- Reputation of Institution
- Reputation of Programme
- Specialised Programmes
- Variety of Course Offered

- Student Professor Ratio
- Specific Reputation of the Department
- Social Atmosphere
- Academic Quality
- Academic Environment
- Living Environment
- UGC Recognition

Factor two can be named as Influence and below variables has been categorized under Factor two

- Scholarship Available
- Athletic Opportunities
- Student Population
- Peer adult Influence

Factor three can be named as Accommodation and below variables has been categorized under Factor three

- Availability of housing
- Cost of Living

Factor four can be named as Attitudes and below variables has been categorized under Factor four

- Closeness to home
- Location (Size of city or town)
- Family tradition

4.2.2 Reliability analysis

Reliability analysis has been carried out to check the reliability of extracted eight factors as shown below. Cronbach (1951) is a measurement that is loosely equivalent to splitting data in two in every possible way and computing the correlation coefficient for

each split. The average of these values is equivalent to Cronbach's alpha, α , which is the most common measure of scale reliability. Kline (1999) note that although the generally accepted value of 0.8 is appropriate for cognitive tests such as intelligence tests, for ability tests a cut-off point of 0.7 is more suitable. It is said that when dealing with psychological constructs values below even 0.7 can, realistically, be expected because of the diversity of the constructs being measured.

Table 4.30: Reliability Statistics

Factor Name	Cronbach's Alpha Based on Standardized Items
1. Study Programme	.954
2. Influence	.790
3. Accommodation	.705
4. Attitudes	.735

According to the results of the reliability analysis all the four factors has been taken for further analysis as those factors were reliable.

4.3 Hypothesis Testing

Hypothesis testing has been carried out for all eight factors using Kruskal Wallis test as shown below.

Hypothesis Testing for Factor 01 – Study Programme

Below hypothesis has been checked during performing of Kruskal Wallis test;

H_0 : Study Programme is independent from the i^{th} variable

H_1 : Study Programme is depending on the i^{th} variable

i^{th} variable – Gender, Programme type, Programme area, Education of the fathers, Education of the mothers, Occupation of the fathers, Occupation of the mothers, Income of the family, The way of paying college fee, District of the school, Type of the school, Living area

Table 4.31: Hypothesis testing test results of Factor 01 – Study Programme

Variable Name	Kruskal Wallis Test Statistics	P- Value
1. Gender	11.261	0.001
2. Programme type	15.905	0.001
3. Programme area	40.272	0.000
4. Education of the fathers	10.941	0.053
5. Education of the mothers	8.546	0.129
6. Occupation of the fathers	0.941	0.941
7. Occupation of the mothers	0.309	0.309
8. Income of the family	4.424	0.352
9. The way of paying college fee	2.978	0.395
10. District of school	23.125	0.145
11. Type of school	3.034	0.386
12. Living area	25.848	0.056

According to the test results, gender, programme type and programme area are highly significant (under 5%) when considering education quality.

Hypothesis Testing for Factor 02 – Influence

Below hypothesis has been checked during performing of Kruskal Wallis test;

H_0 : Influence is independent from the i^{th} variable

H_1 : Influence is depending on the i^{th} variable

i^{th} variable – Gender, Programme type, Programme area, Education of the fathers, Education of the mothers, Occupation of the fathers, Occupation of the mothers, Income of the family, The way of paying college fee, District of the school, Type of the school, Living area

Table 4.32: Hypothesis testing test results of Factor 02 - Institute

Variable Name	Kruskal Wallis Test Statistics	P- Value
1. Gender	1.313	0.252
2. Programme type	12.282	0.006
3. Programme area	18.118	0.001
4. Education of the fathers	8.233	0.144
5. Education of the mothers	1.2	0.945
6. Occupation of the fathers	0.969	0.969
7. Occupation of the mothers	0.330	0.330
8. Income of the family	9.314	0.054
9. The way of paying college fee	0.665	0.881
10. District of school	22.451	0.167
11. Type of school	4.585	0.205
12. Living area	15.343	0.500

According to the test results, programme type and programme area are highly significant (under 5%) when considering institute.

Hypothesis Testing for Factor 03 – Accommodation

Below hypothesis has been checked during performing of Kruskal Wallis test;

H_0 : Accommodation of the institute is independent from the i^{th} variable

H_1 : Accommodation of the institute is depending on the i^{th} variable

i^{th} variable – Gender, Programme type, Programme area, Education of the fathers, Education of the mothers, Occupation of the fathers, Occupation of the mothers, Income

of the family, The way of paying college fee, District of the school, Type of the school, Living area

Table 4.33: Hypothesis testing test results of Factor 03 – Accommodation

Variable Name	Kruskal Wallis Test Statistics	P- Value
1. Gender	15.388	0.000
2. Programme type	12.181	0.007
3. Programme area	13.870	0.008
4. Education of the fathers	1.530	0.910
5. Education of the mothers	8.619	0.125
6. Occupation of the fathers	0.497	0.497
7. Occupation of the mothers	0.248	0.248
8. Income of the family	8.627	0.071
9. The way of paying college fee	0.663	0.882
10. District of school	25.543	0.083
11. Type of school	8.385	0.039
12. Living area	25.848	0.162

According to the test results, gender, programme type, programme area and type of school are highly significant (under 5%) when considering Location of the institute.

Hypothesis Testing for Factor 04 – Attitudes

Below hypothesis has been checked during performing of Kruskal Wallis test;

H_0 : Attitudes is independent from the i^{th} variable

H_1 : Attitudes is depending on the i^{th} variable

i – Gender, Programme type, Programme area, Education of the fathers, Education of the mothers, Occupation of the fathers, Occupation of the mothers, Income of the family, The way of paying college fee, District of the school, Type of the school, Living area

Table 4.34: Hypothesis testing test results of Factor 04 - Attitudes

Variable Name	Kruskal Wallis Test Statistics	P- Value
1. Gender	0.510	0.475
2. Programme type	8.655	0.034
3. Programme area	11.680	0.020
4. Education of the fathers	6.377	0.271
5. Education of the mothers	15.680	0.008
6. Occupation of the fathers	0.270	0.270
7. Occupation of the mothers	0.867	0.867
8. Income of the family	7.459	0.114
9. The way of paying college fee	2.188	0.534
10. District of school	31.868	0.016
11. Type of school	11.956	0.008
12. Living area	23.620	0.098

According to the test results programme type, programme area, education of the mothers, district of the school and type of the school are highly significant (under 5%) when considering total cost.

4.4 Summary of advanced analysis

Only gender and the way of paying college fee are highly significant to the programme type as per the chi square test result. Gender, the way of paying college fee, district of school, type of school and living area are highly significant to the programme area. As a result of factor analysis, the most reliable eight factors which are considered by the general public when selecting a higher education institute have been identified as Study programme, Influence, Accommodation and Attitudes. According to the results of kruskall wallis test as a hypothesis test, gender, programme type and programme area are highly significant (under 5%) when considering education quality. According to the test results, programme type and programme area are highly significant (under 5%) when considering institute. According to the test results, gender, programme type, programme area and type of school are highly significant (under 5%) when considering location of the institute. According to the test results programme type, programme area, education of the mothers, district of the school and type of the school are highly significant (under 5%) when considering total cost.

CHAPTER 5 DISCUSSION AND CONCLUSIONS

5.1 Significant factors which are considered by general public when select higher education opportunities in the Private Institutions

When considering the gender of the students who are following the programmes in the private higher education institutions in Sri Lanka 65.6% is male and only 34.4% is female. Majority of them have done the physical science (Mathematics) for their Advance Level studies. 30% of the students have taken the Z-Score in between 0.5 to 1 for the Advance Level examination.

When considering the sources of information, friends/ colleagues and the website are the most usable methods to convey the course information to students. Exhibition also has a considerable contribution to this. If we consider the advertisements, mostly students have taken the information from paper advertisements. If we consider the exhibitions EDEX is the most popular exhibition to convey information to students.

Female students are relatively lower than that of male students who are doing Degree programmes. Male students among the students who are following engineering, medicine and management programmes are higher than the female students. Majority of fathers and mothers of the Degree students in engineering and management disciplines have advance level qualification as their highest qualification. Most of the fathers of Degree students are doing their own business and the most of the fathers of diploma students are working in private sector as managers. When considering the programme area, most of the fathers of the engineering students are government officers and managers in private sector. Majority of the fathers of medicine students are government officers. Doing businesses is the main occupation of the fathers of the students who are following management programmes. Considerable representation can be seen in government officers, managers in private sector and business as the

occupation of the fathers of art students. Despite the programme type, majority of mothers are housewives. But the mothers of students who are doing diploma programmes, same number is going to the teachers also. In Engineering, management and art streams a considerable number of mothers are attached to teaching as their occupation when the majority is housewives. More than 48% of students who are following Degree programmes are from the families which have the income level between Rs. 50,000 and Rs. 100,000. Approximately 60% of students who are following diploma programmes are from the same type of families. More than 50% of engineering students, more than 71% of medicine students, more than 46% of management students and more than 52% of arts students belong to the families which have the income between Rs. 50,000 and Rs. 100,000. When considering the way of paying college fee parents are the main contributor for that. Majority of the students who are doing the programmes at private higher education institutes are from the schools of Colombo district and the most of them are living in Colombo. The second is Gampaha and the majority of them are from the national schools.

In order to check the relationship between the programme type and the programme area with the demographic variables, a chi square test was conducted using the responses obtained for various items such as gender, father's education etc,. Since the sample is large, a chi-squared test has been used fisher's exact test. Programme type is depending on the gender and the way of paying college fee. Programme area is depending on the gender, the way of paying college fee and living area.

In doing advanced analysis, the variables which are considered by the general public when selecting a higher education institution are taken into consideration and factor analysis has been carried out based on that. Finally four (04) factors have been extracted as listed below;

- Study Programme
- Influence
- Accommodation
- Attitudes

5.2 Conclusions

Based on the study carried out, the following conclusions were made.

Study Programme is depending on the gender, programme type and programme area.

Influence is depending on programme type and programme area.

Accommodation is depending on gender, programme type, programme area and type of school. Attitude is depending on programme type, programme area, education of the mothers, district of the school and type of the school.

5.3 Suggestions for future works

The study can be further extended to identify the factors which are considered by the parents of the students when they find an institute for the higher education for their children and can be further extended to analyse the dislikes of the parents and students which are affected to reject some institutes as their higher education institute. This study can be further extended to identify the reasons of some students to select some non-state institutes even they have selected to the state universities.

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