# Analysing Significant Factors Considered by General Public in Selecting Higher Educational Opportunities in Private Institutions

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*Abstract— Gaining higher education is vital for a person to find more lucrative careers pursuing a better professional and personal life growth. In the modern world, private education institutes play an imperative role by opening up many more opportunities for those who are seeking higher education aspirations. The study was carried out with the objectives of identifying the potential students for a particular programme of a private higher education institute in Sri Lanka and to identifying the salient factors which are considered by the students when selecting higher education opportunities in the private institutions. Due to the unavailability of secondary data source, primary data was collected through a questionnaire survey and descriptive analysis has been carried out to check the relationship between the response variables and other explanatory variables. Due to the availability of colliniarity between explanatory variables and as those variables, factor analysis has been carried out. Hypothesis testing has been carried out for ordinal data using Kruskal Wallis test. As per the major findings, higher studies are more preferred by male students those who have done mathematics for their Advanced Level studies. The main sources, referred for gathering course information are friends and the websites. With reference to the education background and occupation of the respondents' parents, the most have advanced level qualification, most fathers are government servants and businessmen and mothers are house wives. Parents are the main source of financial contributor for their higher studies. Majority of the respondents live and have studied at Colombo, Sri Lanka and have gone to national schools. According to the factor analysis, Education quality, Institute, Location of the institute, Total Cost, Peer/Adult Influence, Family Tradition, Availability of accommodation and Social Atmosphere are the determinates considered by students those who are pursuing higher education.*

*Keywords— Education, Higher Education Institutions, Factor Analysis*

## I. INTRODUCTION

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.

### A. Objectives

Identifying the potential students for a particular programme of a higher education institute in Sri Lanka.

Identifying the most important factors that higher education institutes should concern to provide the service to fulfil the customer requirements.

### II.METHODOLOGY

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.

Based on the reliable factors hypothesis testing has been carried out for ordinal data using Kruskal Wallis test. Factor analysis is the method of data reduction. Correlated variables are grouped together and separated from other variables with low or no correlation Factor analysis could be described as orderly simplification of interrelated measures. Traditionally factor analysis has been used to explore the possible underlying structure of a set of interrelated variables without imposing any preconceived structure on the outcome (Child, 1990). By performing exploratory factor analysis (EFA), the number of constructs and the underlying factor structure are identified. Kruskal Wallis test has been used to k independent samples which is an extension to the Mann Whitney test.

### III.RESULTS

In analysing the significant factors which are considered when select higher education opportunities, 250 students have been selected. Questionnaire has been used in primary data collection process. Out of 250 students 230 students responded to the questionnaire, it
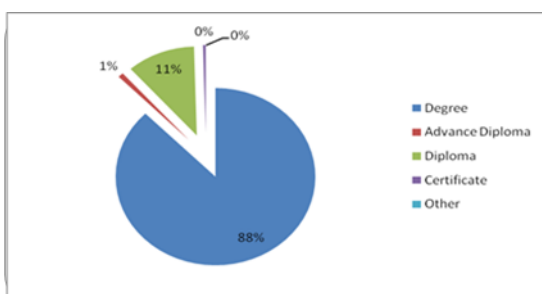


is 92% as a percentage. Face-to-face method, email questionnaire methods are being used.

Figure 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.
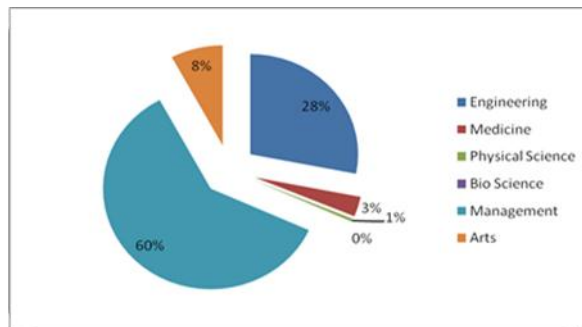


Figure 2: Areas of the programmes that students are following

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.

In the sample the gender reprerentation 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. 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..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. More than 85% of students are doing Degree programmes in the sample. Approximately 11.1% of them are doing diploma progammes as their higher studies in the sample..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. 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. 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. 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%. 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. 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. 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. 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. When considering the living district of the students, highest number of students is living in Colombo district, which is approximately 32.3% in the sample. Chi Squared Test for Association

Ho: Programme type is independent from the ith variable

H1: Programme type is depending on the ith 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 1. Relationship between programme type and the demographic variables

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

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

Ho: Programme area is independent from the ith variable
H1: Programme area is depending on the ith 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 2. Relationship between programme area and the Demographic variables

| Variable Name | Fisher's Exact Test Statistics | P- Value |
|---|---|---|
| Gender | 44.618 | 0.000 |
| Education of the fathers | 10.421 | 0.199 |
| Education of the mothers | 9.639 | 0.363 |
| Income of the family | 13.009 | 0.087 |
| The way of paying college fee | 74.223 | 0.000 |
| District of school | 13.007 | 0.007 |
| Type of school | 26.881 | 0.040 |
| 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.

*B. Factor Analysis*
In order to explore the factors which are considered by general public when they select higher education institution, a Factor analysis was conducted using the responses obtained for various items such as peer/ adult influence, UGC recognition etc,.

Table 3. Total variance explained

|   | Total | % of Variance | Cumulative % |
|---|-------|---------------|--------------|
| 1 | 6.754 | 32.161 | 32.161 |
| 2 | 2.554 | 12.163 | 44.324 |
| 3 | 1.865 | 8.880 | 53.204 |
| 4 | 1.604 | 7.640 | 60.844 |
| 5 | 1.372 | 6.534 | 67.378 |
| 6 | 1.262 | 6.009 | 73.387 |
| 7 | 1.233 | 5.871 | 79.258 |
| 8 | .730 | 3.476 | 82.734 |

First factor accounts for 48.870% of the variance, the second 9.933%, the third 5.561%, the fourth 4.854%, the fifth factor 4.338%, the sixth factor 3.612%, the seventh factor 2.873% and the eighth factor 2.693%. The total variance explained by the factor model is 82.734%.

Table 4. Interpretation of the factor model

| **FACTOR 1 – Education Quality** | |
|---|---|
| Reputation of institution | .678 |
| Reputation of programme | .845 |
| Specialised Programmes | .841 |
| Variety of course offered | .720 |
| Student Professor Ratio | .595 |
| Specific reputation of the department | .678 |
| Academic Quality | .845 |
| Academic Environment | .841 |
| Living Environment | .720 |
| UGC Recognition | .595 |
| **FACTOR 2- Institute** | |
| Scholarship Available | 556 |
| Athletic Opportunities | .817 |
| Student Population | 752 |
| **FACTOR 3- Location_New (Location of the institute)** | |
| Closeness to home | .910 |
| Location (Size of city or town) | .852 |
| **FACTOR 4 – Cost New (Cost of the programme)** | |
| Cost of Living | .683 |
| Cost | .780 |
| **FACTOR 5 -  Peer Adult Influence** | |
| Peer Adult Influence | .711 |
| **FACTOR 6 -  Family Tradition** | |
| Family Tradition | .793 |
| **FACTOR 7 -  Availability of accommodation** | |
| Availability of housing | .911 |
| **FACTOR 8 - Social Atmosphere** | |
| Social Atmosphere | .559 |

*C.  Hypothesis Testing for Factors*

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

Ho: Factor is independent from the ith variable

H1: Factor is depending on the ith variable

ith 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 5.  Hypothesis testing test results ofFactor 01 – Education quality

| **Variable Name** | **P- Value** |
|---|---|
| Gender | 0.001 |
| Programme type | 0.000 |
| Programme area | 0.000 |
| Education of the fathers | 0.048 |
| Education of the mothers | 0.138 |
| Occupation of the fathers | 0.919 |
| Occupation of the mothers | 0.324 |
| Income of the family | 0.139 |
| The way of paying college fee | 0.477 |
| District of school | 0.013 |
| Type of school | 0.010 |
| Living area | 0.096 |

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

Table 6.  Hypothesis testing test results of Factor 02 - Institute

| Variable Name | P- Value |
|---|---|
| 1.  Gender | 0.296 |
| 2.  Programme type | 0.001 |
| a.  Programme area | 0.001 |
| b.  Education of the fathers | 0.157 |
| c.  Education of the mothers | 0.895 |
| d.  Occupation of the fathers | 0.767 |
| e.  Occupation of the mothers | 0.620 |
| f.  Income of the family | 0.423 |
| g.  The way of paying college fee | 0.569 |
| h.  District of school | 0.049 |
| i.  Type of school | 0.341 |
| j.  Living area | 0.110 |

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

Table 7. Hypothesis testing test results of Factor 03 – Location of the institute

| Variable Name | P- Value |
|---|---|
| Gender | 0.136 |
| Programme type | 0.065 |
| Programme area | 0.012 |
| Education of the fathers | 0.302 |
| Education of the mothers | 0.011 |
| Occupation of the fathers | 0.079 |
| Occupation of the mothers | 0.832 |
| Income of the family | 0.208 |
| The way of paying college fee | 0.842 |
| District of school | 0.044 |
| Type of school | 0.034 |
| Living area | 0.121 |

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

Table 8. Hypothesis testing test results of Factor 04 - Total Cost

| Variable Name | P- Value |
|---|---|
| Gender | 0.000 |
| Programme type | 0.029 |
| Programme area | 0.003 |
| Education of the fathers | 0.466 |
| Education of the mothers | 0.369 |
| Occupation of the fathers | 0.724 |
| Occupation of the mothers | 0.454 |
| Income of the family | 0.035 |
| The way of paying college fee | 0.650 |
| District of school | 0.120 |
| Type of school | 0.123 |
| Living area | 0.378 |

According to the test results gender, programme type, programme area and income of the family are highly significant (under 5%) when considering total cost.

Table 10. Hypothesis testing test results of Factor 05 - Peer/Adult Influence

| Variable Name | P- Value |
|---|---|
| Gender | 0.330 |
| Programme type | 0.019 |
| Programme area | 0.016 |
| Education of the fathers | 0.506 |
| Education of the mothers | 0.595 |
| Occupation of the fathers | 0.992 |
| Occupation of the mothers | 0.120 |
| Income of the family | 0.249 |
| The way of paying college fee | 0.490 |
| District of school | 0.068 |
| Type of school | 0.527 |
| Living area | 0.040 |

According to the test results, programme type, programme area and living area are highly significant (under 5%) when considering peer/adult influence.

Table 11. Hypothesis testing test results of Factor 06 - Family tradition

| Variable Name | P- Value |
|---|---|
| Gender | 0.490 |
| Programme type | 0.000 |
| Programme area | 0.086 |
| Education of the fathers | 0.474 |
| Education of the mothers | 0.040 |
| Occupation of the fathers | 0.619 |
| Occupation of the mothers | 0.943 |
| Income of the family | 0.018 |
| The way of paying college fee | 0.528 |
| District of school | 0.522 |
| Type of school | 0.315 |
| Living area | 0.325 |

According to the test results, programme type, education of the mothers, income of the family are highly significant (under 5%) when considering family tradition.

Table 12. Hypothesis testing test results of Factor 07 Availability of accommodation

| Variable Name | P- Value |
|---|---|
| Gender | 0.002 |
| Programme type | 0.011 |
| Programme area | 0.039 |
| Education of the fathers | 0.968 |
| Education of the mothers | 0.214 |
| Occupation of the fathers | 0.490 |
| Occupation of the mothers | 0.344 |
| Income of the family | 0.211 |
| The way of paying college fee | 0.869 |
| District of school | 0.382 |
| Type of school | 0.332 |
| Living area | 0.707 |

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

Table 13. Hypothesis testing test results of Factor 08 - Social atmosphere

| Variable Name | P- Value |
|---|---|
| Gender | 0.029 |
| Programme type | 0.001 |
| Programme area | 0.000 |
| Education of the fathers | 0.242 |
| Education of the mothers | 0.099 |
| Occupation of the fathers | 0.624 |
| Occupation of the mothers | 0.343 |
| Income of the family | 0.075 |
| The way of paying college fee | 0.387 |
| District of school | 0.010 |
| Type of school | 0.003 |
| Living area | 0.016 |

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

## IV.DISCUSSION AND CONCLUSION

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 eight (08) factors have been extracted as; Education quality, Institute, Location of the institute, Total cost, Peer/Adult influence, Family tradition, Availability of accommodation, Social atmosphere. Education quality is depending on the gender, programme type, programme area, education of the fathers, district of school, type of the school. Institute is depending on programme type, programme area and district of school. Location of the institute is depending on programme area, education of the mothers, district of the school and type of the school. Total cost is depending on gender, programme type, programme area and income of the family. Peer/ Adult influence is depending on programme type, programme area, living area. Family tradition is depending on programme type, education of the mothers, and income of the family. Availability of accommodation is depending on gender, programme type and programme area. Social atmosphere is depending on gender, programme type, programme area, district of school, type of school and living area.

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