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Predictors of Student Dropout: A Discriminant Analysis of Muslim and Non-Muslim students in Higher Education in the Malabar regions of Kerala

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Abstract

Educational attainment plays a crucial role in shaping human capital and social development, but student dropouts remain a persistent issue, particularly in marginalized communities This study applies discriminant analysis to examine the differences between Muslim and non-Muslim student dropouts in the higher education sector of the Malabar region of Kerala. Using primary data, the analysis evaluates the influence of variables such as standard of living, marriage, parental attitude, economic condition, health issues, job prospects, exam results, and students' aspirations to continue education. The results indicate that marriage, parental attitude, standard of living, and health issues are the strongest predictors of dropout disparities between Muslims and non-Muslims. While Muslim students generally performed well academically and demonstrated a willingness to pursue higher education, parental objection and early marriage significantly hindered their continuation. Poor economic condition affected 24.8% of non-Muslims but only 5.2% of Muslims affected it. The findings underscore the importance of community and parental awareness programs to reduce dropout rates and foster equal educational opportunities.

Keywords: Higher education, Dropouts, Muslim students, Discriminant analysis, Socio-economic factors

1. Introduction

The value of education in promoting social and economic progress is widely accepted today. Higher education plays such an important role in promoting social and economic advancement of man, In India, a person's religious background and socioeconomic status often influence their educational outcomes. When it comes to Kerala, the state's educational achievements have been extensively praised. Kerala has been named one of India's states with the highest educational standards. Its population has an average of 7.7 years of schooling, which is significantly higher than the national average of 5.6 years. It is an Indian state with a high literacy rate and nearly universal access to basic education. But the state requires a little

greater performance in higher education. The degree of inequality between various social, gender, and economic groups too is alarming in the state. The greatest dropout rate in Kerala's minority is a severe issue in higher education. Kerala has the lowest school dropout rate in the country. Kerala had a 0.11 percent dropout rate. The higher secondary school dropout rate is under 0.15 percent, while the national average is 17.06 percent, according to the Minister of Human Resource Development (MHRD, 2019). We were able to reduce the Upper Primary dropout rate in Kerala to 0.06 percent. Though the state is seeing a considerable decline in school dropouts, the dropout rate in Kerala's higher education sector is significantly higher. This study focuses on identifying the specific factors that distinguish student dropouts from Muslim and non-Muslim communities in the Higher Education sector of Kerala's Malabar region. By employing discriminant analysis, the research highlights the socio-cultural and economic determinants that contribute to the unequal dropout patterns between these two groups.

2. Review of Literature.

E.I.George (1975**)** made a study on the educational problems of the scheduled cast and scheduled tribe college students in Kerala and try to find out which sections of the people from SC and ST were been fitted most? what are the reasons for the dropped-out and what are the special facilities exist for them and how they reacted it? By interviewing students and teachers, he find out that, even though dropping out of students was low, illiteracy of parents, financial problem etc are more and many of the students took two years to pass from first pre degree to second pre degree from the teachers view, SC and ST students' academic calibre is much poor, when we compare with others because of inadequate early home background and existing scholarship are not utilised in a fruitful manner. Shahid Ahmed (2007) conducted an econometric analysis based on specifying and estimating the bivarient correlation function, partial correlation, linear regretion and logit model to findout the socio economic determinents of female education in a muslim family. The study shows that muslim girls education is positively related to household income and parental eudcation, and negetively related to family size. George Zachariah (2010) undertook a study of some changing enrolment patterns in Arts and Science collages in Kerala. The focus of the study was to examine the growth and development of rare education in Kerala, to study the employment structure, of the Kerala economy etc. The study reveals that the proportion of Muslims has made much improvement between 1999 and 2006 at the undergraduate level. Likewise, girls outnumbered boys in all the courses. Regarding the minorities, the share of SC-ST almost doubled in regular colleges and OEC'S made marginal increase in their share. In case of dropout, generally all the students who enrol for a course not be able to complete it, but the study shows that the rate has come down recently. The study focusses some changing enrolment patterns of Arts & Science Colleges & point out the improvement of Muslims, girls, SC & STs etc. It also highlights the dropout problems but never give a deep explanation for that. Therefore, the researcher hope to fill this gap. The research provides some insights into the social, economic and educational issues of Muslims and non muslims in Kerala.

3. Objectives of the Study

The main objectives of this study are:

1. To analyse the factors contributing to dropout among Muslim and non-Muslim students.

2. To identify statistically significant variables that discriminate between the two groups.

3. To assess the relative importance of socio-economic, cultural, and academic factors in predicting dropout status.

4. To suggest policy implications for reducing dropout rates, particularly among Muslim students.

4. Methodology

This study is based on primary data collected from 367 dropout students, comprising 210 Muslims and 157 non-Muslims.

Discriminant analysis was employed to classify dropouts into two groups and to identify the variables most responsible for the differences.

Independent Variables: Standard of living, marriage, parental attitude, exam results, poor economic condition, health issues, job prospects, and willingness to continue education.

Statistical Tests: Pearson's Chi-square test was used to identify group differences, while Analysis of Variance (ANOVA) and Wilks' Lambda were employed to test equality of means and discriminating power. Canonical discriminant function coefficients were calculated to measure the relative importance of variables.

5. Results and Discussion

5.1 Group Differences

Chi-square results revealed significant differences across all selected variables.

Selected Variables and Pearson Chi-Square Result.

For the analysis, the variables such as standard of living, getting married, parent's attitude, exam result, poor economic condition, getting job, wish to continue education and health issues. The major reasons behind the dropped outs such as getting married, poor economic condition, health issues and getting job are considered here for the analysis. Also, standard of living index of their household is another variable to study whether there is a difference between the two groups that prevent them from the higher studies. The dropped-out students who wish to continue their higher studies and parent's attitude towards the employment of their female children also considered here for the analysis. Chi square tests were employed to identify group differences in proportions. All the selected variables are statistically significant.

Table .1

Selected Variables and Pearson Chi-Square Result

Exam Result**	Muslim	Non-Muslim	Total
Very Good	72.4	38.2	57.8
Good	21.0	45.2	31.3
Satisfactory	6.2	16.6	10.6
Unsatisfactory	0.5	0.0	0.3
Total	100.0	100.0	100.0
Parent's Attitude towards Female Education**			
No	78.6	98.1	86.9
Yes	21.4	1.9	13.1
Total	100.0	100.0	100.0
Students wish to continue Education**			
No	48.1	73.9	59.1
Yes	51.9	26.1	40.9
Total	100.0	100.0	100.0
Health Issues**			
No	75.7	89.8	81.7
Yes	24.3	10.2	18.3
Total	100.0	100.0	100.0
Poor economic condition**			
No	94.8	75.2	86.4
Yes	5.2	24.8	13.6
Total	100.0	100.0	100.0
Hope to Get Job**			
No	49.0	33.8	42.5
Yes	51.0	66.2	57.5
Total	100.0	100.0	100.0
Getting married**			
No	27.1	79.0	49.3
Yes	72.9	21.0	50.7
Total	100.0	100.0	100.0
Standard of Living**			
Low	37.1	63.7	48.5
Medium	42.4	29.3	36.8
High	20.5	7.0	14.7
Total	100.0	100.0	100.0

Note: <0.01 (**) p-values from chi square tests for categorical variables

Using means and ANOVA, it is examined that there is a visible difference in mean between standard of living, getting married and wish to continue education Key findings include: Marriage: 72.9% of Muslim dropouts reported marriage as a reason, compared to only 21% of non-Muslims. Parental Attitude: 78.6% of Muslim parents disapproved of female higher education compared to 98.1% among non-Muslims. Academic Performance: Muslim students showed stronger academic results than non-Muslims, with 72.4% scoring "very good." Economic Condition: Poor economic condition affected 24.8% of non-Muslims but only 5.2% of Muslims.

5.2 Discriminant Analysis

Table .2

Group Statistics - Mean and Standard Deviation

		Mean	Std.Deviation	Valid N (listwise)	
				Unweighted	Weighted
Muslim	Standard of Living	1.833	0.742	210	210.000
	Getting Married	0.729	0.446	210	210.000
	Getting job	0.510	0.501	210	210.000
	Poor Economic Condition	0.052	0.223	210	210.000
	Health Issues	0.243	0.430	210	210.000
	Wish to continue Education	0.519	0.501	210	210.000
	Parent's attitude	0.214	0.411	210	210.000
	Exam Result	1.348	0.617	210	210.000
Non-Muslim	Standard of Living	1.433	0.623	157	157.000
	Getting Married	0.210	0.409	157	157.000
	Getting job	0.662	0.474	157	157.000
	Poor Economic Condition	0.248	0.433	157	157.000
	Health Issues	0.102	0.303	`	157.000
	Wish to continue Education	0.261	0.441	157	157.000
	Parent's attitude	0.019	0.137	157	157.000
	Exam Result	1.783	0.710	157	157.000
Total	Standard of Living	1.662	0.721	367	367.000
	Getting Married	0.507	0.501	367	367.000
	Getting job	0.575	0.495	367	367.000
	Poor Economic Condition	0.136	0.344	367	367.000
	Health Issues	0.183	0.387	367	367.000
	Wish to continue Education	0.409	0.492	367	367.000

	Parent's attitude	0.131	0.338	367	367.000
	Exam Result	1.534	0.692	367	367.000

Source: Primary data

Table 2 provides statistically strong significant differences between means of Muslim and non-Muslim dropout groups for all independent variables with 'getting married' giving very high F value. In other words, Wilks' Lambda was significant by F test for the variables 'getting married', exam result, parent's attitude, poor economic condition, standard of living, 'wish to continue education', health issues and getting job.

Table.3

Tests of Equality of Group mean

	Wilks' Lambda	F	df1	df2	Sig.
Standard of Living	.924	29.890	1	365	.000
Getting Married	.737	130.360	1	365	.000
Getting job	.977	8.752	1	365	.003
Poor Economic Condition	.920	31.710	1	365	.000
Health Issues	.967	12.294	1	365	.001
Wish to continue Education	.933	26.367	1	365	.000
Parent's attitude	.918	32.614	1	365	.000
Exam Result	.903	39.354	1	365	.000

Source: Primary data

Here only one function is displayed to discriminate for two groups, namely Muslims and non-Muslims and therefore one eigenvalue is given in table 3. Deduct one from the number of groups will get the maximum number of discriminant functions. With only one function it provides an index of overall model fit which is interpreted as being the proportion of variance explained (R2). The canonical correlation measures the association between the discriminant scores and the groups: a high value (near to one) showed that the function discriminates well. Here the canonical correlation is 0.586 in which the model explains 34.3% of the variation in the grouping variable, that is, whether a respondent Muslim or non-Muslim.

Table.4

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.523a	100	100	0.586
a First 1 canonical discriminant functions were used in the analysis.				

Table 4 gives the Wilks' Lambda and Chi-Square along with significance level for the sample data. Wilks' lambda indicates the significance of the discriminant function. It indicates a highly significant function ($p < .000$) and provides the proportion of total variability not explained, i.e. it is the converse of the squared canonical correlation (1-0.5862) and thus65.7% unexplained.

Table.5
Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.657	151.788	8	.000

In table 5, Muslim have a mean of 0.623 while non-Muslim have a mean of -0.834. The distance between the groups is 1.46. Cases with scores near to a centroid are predicted as belonging to that group. A significant difference between the groups with respect to the predictor variables at one percent level of significance can be found. Thus, the analysis clearly established that there is a differential exists among Muslim and non-Muslim dropped out students.

Table.6
Functions at Group Centroids

Muslim Non-Muslim	Function
	1
Muslim	.623
Non-Muslim	-.834

Unstandardized canonical discriminant functions evaluated at group means

It can be seen from Table.6 that group difference exists for Muslim and non-Muslim dropped out students. 'Standard of living', 'getting married', 'health issues' and 'parent's attitude' contribute more and 'getting job', 'poor economic condition', 'wish to continue education' and 'exam results' contribute least in the overall discrimination between the groups. The sign indicates the direction of the relationship. 'Getting married' is the strongest predictor variable followed by standard of living and parent's attitude. The variable with large coefficient strongly predicts allocation to Muslim and non-Muslim group.

Table .7
Standardized Canonical Discriminant Function Coefficients

	Function
	1
Standard of Living	.330
Getting Married	.688
Getting job	-.081
Poor Economic Condition	-.127
Health Issues	.117
Wish to continue Education	-.018
Parent's attitude	.229
Exam Result	-.251

The unstandardized coefficients in table 7 clearly reveals the discriminant function. That is, D = (.475 x Standard of Living) + (1.598 x Getting Married) + (-.166 x Getting job) + (-.386 x Poor Economic Condition) + (.307 x Health Issues) + (-.037 x Wish to continue Education) + (.705 x Parent's attitude) + (-.381 x Exam Result) – 1.000.

Table .8
Canonical Discriminant Function Coefficients

	Function
	1
Standard of Living	.475
Getting Married	1.598
Getting job	-.166
Poor Economic Condition	-.386
Health Issues	.307
Wish to continue Education	-.037
Parent's attitude	.705
Exam Result	-.381
(Constant	-1.000

Unstandardized coefficients

The magnitudes of the coefficients in table 8 indicate how strongly the discriminating variables affect the score. Here, the standardised coefficient for 'getting married' in the function is greater in magnitude than the coefficients for the other variables. Thus, this variable has the greatest impact of the whole variables on the discriminant score. However, considering other variables, parent's attitude, standard of living and health issues have some impact on the two groups.

The canonical correlation was 0.586, explaining 34.3% of variance in group differences. Wilks' Lambda confirmed the discriminant function as highly significant ($p < .000$). Group centroids (Muslim = 0.623, non-Muslim = -0.834) indicated a clear separation.

The strongest predictors were:

1. Getting married (highest discriminant coefficient = 1.598)

2. Standard of living (0.475)

3. Parental attitude (0.705)

4. Health issues (0.307)

These results demonstrate that socio-cultural constraints, especially marriage and parental disapproval, outweigh economic factors in explaining dropout disparities.

5.3 Conclusion

The study concludes that while Muslim students exhibit strong academic performance and a willingness to pursue higher education, social factors such as early marriage and parental attitudes remain significant barriers. In contrast, non-Muslim dropouts are more affected by economic hardship and employment opportunities.

Policy Implications:

Awareness programs for parents, particularly in Muslim communities, are essential to highlight the long-term benefits of higher education.

Special support schemes should be designed to reduce marriage-related dropout rates.

Scholarships and health assistance may further help students from disadvantaged backgrounds continue their studies.

Ultimately, reducing dropout rates requires addressing both socio-cultural and economic constraints while ensuring inclusive educational opportunities for all communities.

References

1. Arif,R&Naseem,A.(2017). Statistical survey of women in higher education in India. Development of Social Work, Aligarh Muslim University, India.
2. Ahmad,Zeyauddin (1977.'Cast Elements Among the Muslims of Bihar', in Harjindar Singh ed., Cast Elements Among Non-Hindus in India, Delhi; NationL,1977, PP,1-24.
3. Ailsa, B,Catherine, S.&George, C. (1996). HigherEducation,31;233-253, Kluwer Academic Publishers, Netherlands.
4. Abdul,W.(2010). Minority Education in India: Issues of Access, Equity and Inclusion. CEPPECAMI, Serials publications, New Delhi, India.
5. Alagarajan,M.(2003)." An Analysis of Fertility Differentials by Religion in Kerala State; A test of the interaction Hypothesis".Population Policy and Research Review 22;557-574.
6. Ansari,I.A (1988)." Muslim Educational Backwardness; New Educational Policy and Programme", The Muslim Situation in India, New Delhi; sterling Publishers.
7. Arias,O, McMahon,M.(2001). "Dynamic Rates of Return to Education in the U.S."Economics of Education Review,20;121-138.
8. Tatsouka, M. M., & Tiedeman, D. V. (1954). Discriminant analysis. Review of Educational Research, 24(5), 402–420.

Primary data collected by the researcher.