NAVIGATING ACADEMIC PATHWAYS: EXPLORING THE DETERMINANTS OF COURSE CHOICES BY WOMEN STUDENTS – AN INSTITUTION BASED CASE STUDY

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Abstract

Higher education is a sustainable investment of human capital. Choice-based credit system in higher education enables the students to select portfolio of courses as per their interest. The flexible curricular structures and an interdisciplinary approach opens up opportunities for lifelong learning. The study attempts to answer research question the factors influencing the choice of the elective courses among students and their choice behaviour. The first women's college in Madurai district, Tamil Nadu, South India was considered for the study. The final year 290 postgraduates (83 percent) and 1122 undergraduates (81percent) were the student respondents. Factor analysis was used to find the prominent factors determining the choice of electives among the students at both the undergraduate and postgraduate levels. The perspectives varied as per the level of education. The nature of the course, academic and financial lightness, role of peers, academic motivation and diverse interest were the key influencing variables in elective course choice among the postgraduate students. While among the undergraduate's course package, role of peers and family, academic motivation and nature of the course were the determining factors in elective choice.

Keywords: *Academic choice, Diverse interest, Choice based credit system, Rational*

Education is a unique investment that paves way for the sustainable development of a nation. It serves as a tool for developing a person's soul to pursue truth and live virtuously, in addition to being a means of subsistence. Higher education in particular, is an important component of human capital. Students who decide to pursue higher education select a primary field of study in which to specialise and begin their degree. Disciplines are fundamentally rich and open. Some fields of study are inherently interdisciplinary. After enrolling in the programme, students are given the option of elective or interdisciplinary courses from the beginning, which adds another dimension to interacting with other fields and ultimately results in gaining a portfolio of courses at the end of the study time. The curriculum's connective design empowers students with the ability to establish deep intellectual connections and opportunities, providing a broader perspective beyond specialised disciplinary limits. The goal of an interdisciplinary approach is not to dismantle distinctive disciplines but to build appropriate bridges between them in a contemporary and digital environment, where connections beyond traditional knowledge boundaries are becoming more and more commonplace.

Rational choices help to attain results that are in alignment with individual purposes. The concept of self-interest and an invisible hand leading to rational choices was initiated by the eighteenth-century classical economist Adam Smith. Rational actions are guided by rational players. Neoclassical economist, William Stanley Jevons also assumes that choices are made to maximise utility. The exponents of human capital theory, which first surfaced in education in the early 1960s, emphasised the rationality assumption.

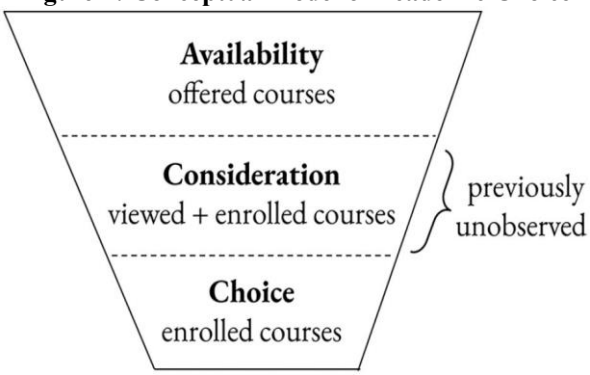
An exploratory study on differentials in the choice of the first and last courses of electives at the Hebrew University of Jerusalem, concluded that the first courses were selected with the expectation of improving intellectual level, pedagogy and occupational gains. The last courses were chosen on the basis of convenience and the level of the course (Babad 2001). The degree of rationality was measured through a search for information in Harokopio University, in Greece. The results of logistic regression indicated that respondents were not actively searching for information very much. Thus, it provided credence to a weakened form of the rationality assumption. Higher socio-economic status groups engaged in greater information searches. This pointed to the need for the strategy to raise knowledge of the key distinctions between educational options in order to empower potential students to make better-informed judgments. (Menon et al. 2007).

The trade-offs between the three attributes perceived difficulty, perceived interest and future career skills were investigated at a public university in Malaysia. The design of the range of electives reflected student needs, preferences and goals, which provided the students with a well-rounded, quality education. The results suggested that students were most concerned about the perceived difficulty of electives and avoided enrolling in them. No gender differences were observed (Ting and ChoiLee 2012). The three factors extracted from final-year undergraduate students Auckland University of Technology were module characteristics, intrinsic motivations and extrinsic motivations. Convenience of the class time, interested students looking to be challenged, immediate achievement measures and a higher grade were the characteristic factors (Hedges et al. 2013). Canadian institution survey found that ‘professor's characteristics’ upper-level students and international students were more inclined to give the professor's qualities more weight while selecting elective courses (Latif and Miles 2020). The influence of friends was evident in students' demands for knowledge and experience when choosing elective courses, and regional opportunities had an impact on their desire to make a difference in their personal and professional life. As a result, the elective course pool that was created with the needs, preferences, and interests of the students in mind influenced how motivated and confident they felt about themselves. By choosing elective courses based on professional, academic, and personal characteristics as well as the academic profiles of the students, it would be beneficial to raise learning and achievement levels (Aslim et al. 2023).

When choosing elective courses, students' demands for knowledge and experience demonstrated the influence of their friends, while their eagerness to make a difference in their personal and professional life demonstrated the influence of local opportunities. Thus, the selection of elective courses based on the needs, preferences, and interests of the students influenced their views of motivation and self-efficacy. It would be beneficial to choose elective courses based on professional, academic, and personal standards as well as the academic profiles of the students in order to boost learning and achievement levels.

The funnel model shown in Figure 1 filters out courses that students do not select and do not consider as unobservable considerations. It is intended for the elective curriculum to function as an academic marketplace where graduates must decide how to allocate their finite and expensive academic credits each term.

Figure 1: Conceptual Model of Academic Choice



Source: Chaturapruek et al., 2021, p.5

In a research-based curriculum, which is particularly applicable when research is expanding in new interdisciplinary directions, it is especially necessary to explore the potential offered by interdisciplinary links. The reason for interdisciplinary research is indicated as “its essential role in addressing complex problems and research questions posed by global social challenges, as well as the increased rigour it can bring to one’s understanding of one’s own discipline” (The British Academy report, 2016, p.9).

Choice Based Credit System in India

In Indian higher education the conventional educational system has been replaced by the semester system. It quickens the process of teaching and learning and makes learning more mobile both vertically and horizontally. The semester system based on credits offers curriculum designers freedom. The course content and teaching hours determine how many credits to be allotted. In a "cafeteria approach" choice-based credit system, students can choose the courses they want to take, work at their own pace, enroll in several courses to earn more credits than they need, and apply an interdisciplinary approach to learning. It puts the pupils on level with international standards for academic performance and methods of assessment.

Eleventh Five-Year plan (2007-2012) set the reforms to introduce credit system in both the undergraduate and postgraduate programmes to provide students with the possibility of spatial and temporal flexibility and mobility in order to bring about quality and transform Indian higher education. The Knowledge Commission 2009, under the chairmanship of Sam Pitroda, recommended introducing greater diversity and flexibility in course structures by introducing course credits. Students must earn a minimum number of credits from their chosen discipline and the remaining from courses of their choice. The University Grants Commission has made the Choice Based Credit System (CBCS) mandatory for all higher education institutions since 2015. Under CBCS, a student would pursue three kinds of courses: foundation courses, elective courses and core courses.

National Education Policy, 2020 proposes a more multidisciplinary undergraduate education. Enhancing resource efficiency will create vibrant disciplinary and cross-disciplinary research communities. By removing the rigid barriers that existed and allowing for innovative combinations of disciplines, flexible curricular structures will open up new opportunities for lifelong learning. Along with rigorous expertise in specialisation in a subject or subjects, students will have access to innovative and exciting course options. In order to foster creativity and flexibility, the CBCS will be reformed.

The CBCS gives students the option to select courses from a list of required courses that includes core, optional, and skill-based courses. The courses are assessed using a distinct grading method, which is thought to be superior to the traditional marking system and results in grades that are transferrable between nations (University Grants Commission).

Choice Based Credit System at the Study Institution

The selected institution was the first women's college in the Madurai region of Tamil Nadu, south India founded in 1948. The college seeks to turn women into entire individuals with a balanced perspective on morality, society, and religion. Since 1978, the college has been among the nation's first autonomous institution. The college designs challenging curriculum and makes regular relevant updates in all the academic programmes. The enlarged curricular space encourages and supports accelerated learning opporunities for the students, which has placed the institution at leading the way in the sphere of higher education.

After 23 years of autonomy and significant invaluable experience, the college developed a learner-focused, Choice Based Credit System at the undergraduate level in the academic year 2001-2002 to accommodate diverse and dynamic choices. This enabled the students to choose subjects that matched their abilities and career options. Intially, the elective courses were offered at two levels, with two credits and three credits. Courses that were offered at the basic level or in skill development or Language development learning were given two credits. Career-oriented and higher education related courses on par with an allied or major paper were given three credits. Departments offered two and three credit courses in the ratio 3:2 respectively. A student was required to earn a minimum of ten credits from elective course offered from the second Semester to the sixth semester for graduation. Students were assigned a faculty advisor to help in planning their courses of study and keep track of the courses registered and credits earned in each semester. Subsequently, after successful completion of twelve years of CBCS, the undergraduate programmes were brought under the Integrated Curricular Model from the academic year 2013-2014.

Choice Based Credit System has been introduced at the postgraduate level since the academic year 2005-2006. The objective was to provide comprehensive and relevant education. Students are given the freedom and opportunity to select courses based on their skills and career options. Motivated students are driven to get extra credits. This would encourage and facilitate collaboration with other institutions of learning and collaborative research with industry.

Henceforth, an institution with rich experience in CBCS was considered for the study.

Research Problem

The paradigm shift from the pursuit of mere academic knowledge to the acquisition of skills is intended to improve the employability of the youth of the nation. Though contemporary higher education includes standardised, efficient and technology-based vocational training along with theoretical academic knowledge, it has not transformed higher education institutions into institutions tending to the desired acquisition of wide knowledge. The limited flexibility and freedom of choice have also created an iron cage in terms of the number of credits. The use of academic credits in monitoring student progress cater to industrial requirements and links institutions with capitalist market-driven economic systems (Mason et al 2001).

In this context the study attempts to answer research question of identifying the factors influencing the choice of the elective courses among students and their choice behaviour.

Significance of the Study

Redesigning the system into a learner-centric approach enables the youth to compete at the local, regional, national and international arena. The flexibility in choices of courses enables students to move to different institutions. Opportunities beyond core subjects enable the holistic development of an individual.

Objective

The study's goal was to identify the variables impacting the choice of electives among final-year undergraduate and postgraduate students.

Methodology

i) Data Collection

The selected College has two streams, aided and self-financed at both the postgrduation and undergraduation levels. Primary data was collected for the academic year 2022-2023 from final-year postgraduate and undergraduate students during the months of January to March 2023. The stream-wise total student strength was collected from the automation portal as of 25th September 2022.

Two questionnaires were designed for the final year postgraduates and undergraduates respectively. The questionnaire were sent to students through google form via official mail by the Centre for Information Technology. Students were also met personally class-wise to motivate them to respond to the questionnaire and clarifications were given to questions which were asked.

Table 1: Distribution of Respondents

Stream	Total Strength	Respondents
Postgraduate		
Aided	138	129 (93)
Self-financed	213	161 (76)
Total	351	290 (83)
Undergraduate		
Aided	621	500 (81)
Self-financed	767	622 (81)
Total	1388	1122 (81)

Note: Figures in brackets indicate percentage of respondents to the respective total strength

ii) Tools of Analysis

The collected data were classified and tabulated for the purpose of analysis and interpretation. Bivariate analysis and averages were applied.

A. **Spearman rank correlation** was applied among the ranks on the mean score of factors influencing the choice of elective courses across undergraduates and postgraduates

B. **Factor analysis** was applied to identify the key elements determing the choice of electives among the students at both the undergraduate and postgraduate levels seperately. The merit of factor analysis was that it involves clustering complex set of variables into groups and scientifically analysing those grouped variables.

The analysis of related variables and their determinants is generally difficult due to the problem of simultaneity and multicollinearity. Factor analysis is primarily used to resolve a group of observed variables into new categories known as factors. These factors highlight the latent variables or dimensions that establish how a set of manifest and observed values relate to one another. Finally factor analysis can be used for empirical clustering of observations (Mumtaj Begum, 1995). The factor analysis model in matrix notation is $X = Af + e$

$$X = (X_1, X_2, X_3 \dots X_p)$$
$$f = (f_1, f_2, f_3 \dots f_m)$$
$$e = (e_1, e_2, e_3 \dots e_p)$$
$$A = \begin{pmatrix} a_{11} & a_{12} & \dots & a_{1m} \\ a_{21} & a_{22} & \dots & a_{2m} \\ a_{p1} & a_{p2} & \dots & a_{pm} \end{pmatrix}$$

Where,

$m -$ number of factors; $p -$ number of variables

$a_{ij} -$ factor loadings which gives net correlation between the variable x_i

$f_j -$ factor

$e -$ error variables

It is assumed that the error variables are distributed independently of f and p. The error variables have multivariate normal distribution.

Factors Influencing Choice of Elective Courses

The primary data was gathered from the perspective of the preferences of students in their choice of elective courses. The factors determining the decisions were analysed, on the basis of whether the students at the institution were pushed from behind or pulled from the front. The socio-economic background of the students was explained in the first part, followed by the examination of factors determining elective choices.

Profile of the Respondents

Questionnaires were designed for final-year postgraduates and final-year undergraduate students in the academic year 2022-2023. The profiles of the student respondents are described in Table 2.

Table 2: Profile of the Respondents

Variables		Postgraduates	Undergraduates
Total		**290**	**1122**
Major	Commerce	21(7)	309(28)
	Humanities	47(16)	281(25)
	Languages	52(18)	116(10)
	Sciences	170 (59)	416(37)
Place of residence	Rural	80 (28)	318(28)
	Urban	210 (72)	804(72)
State	Kerala	4(2)	3(0.3)
	Tamil Nadu	286(98)	117(99.5)
	International	-	2(0.2)
Residential Status	Non-resident	191(66)	794(71)
	Outside hostel	48(17)	110(10)
	Relative's House	2(1)	17(2)
	Resident	49(17)	201(18)
Type of family	Joint	34(12)	175(16)
	Nuclear	256(88)	947(84)
Marital Status	Married	13(4)	34(3)
	Unmarried	277(96)	1083(96.5)
	Separated/Widowed	-	5(0.5)

Source: Primary data

Note: Figures in parenthesis indicate column percentages

Postgraduate Respondents

Among the 351 postgraduate students, 83 percent of them responded to the online survey. 28 percent of the respondents were from rural areas. It confirmed that geographical boundaries were not constraints on entering portals of higher education. Four percent of the respondents were from other states. 44 percent of the postgraduate respondents resided outside their house in order to pursue higher education. It assured the diverse interests of the students to come out of their own native place and search for quality education and different exposures.

Four percent of the postgraduate respondents were married, revealing that marriage is not a barrier to education. A postgraduate degree will be an opening for the entire family, as women's education reaps sustainable positive externalities for generations.

Undergraduate Respondents

Of the total strength, 81 percent of the students responded to the online survey. Three-fourths of the respondent's hailed from urban areas and the remaining from rural areas. Rural student's ability to access the college highlighted the fact that the college always stands for the purpose of empowering women across all classes of the society. Three percent of the student respondents were from Kerala and two international student's study in the final year. 10 percent of the undergraduate student respondents stayed in an outside hostel. This underlined the inclination of society towards women's higher education today.

Three percent of the undergraduate student respondents were married. This questioned the fact whether they were married before the age of 21. The encouraging element was that, after marriage, they study under all circumstances. But the disturbing fact was that five students (0.5 percent) have reported being separated or widowed. An undergraduate student has undergone these turbulences along with social crises at this age.

Education is now the redeemer and uplifter of their total livelihood in all aspects.

Factors Influencing Choice of Elective Courses

There are two fundamental and contradictory paradigms confronting individuals in their mechanisms of choice. First, they are capable of goal-directed activities such as evaluating the available alternatives with respect to forthcoming paybacks. Secondly, they are either controlled by lack of alternatives or propelled by unconscious causative factors. The factors that govern the range of individual decisions in education are explored. The following statements were rated by the student respondents on a 5-point scale.

Table 3: Mean Values of Factors Influencing the Choice of Elective Courses

No	Particulars	Variables	Postgraduates		Undergraduates	
			Mean	Rank	Mean	Rank
1	I enrol in the course that is available at the time of registration	Availability	3.79 (1.17)	7	2.64 (2.02)	16
2	I enrol in the course based on my friend's suggestions	Peer Suggestions	3.24 (1.19)	15	2.27 (1.85)	17
3	I enrol in the course based on my Parent's/ Relatives/ Siblings suggestions	Family Suggestions	2.67 (1.23)	21	2.11 (1.82)	21
4	I enrol in the course, joined by my friends	Peers Course	3.08 (1.24)	20	2.20 (1.83)	20
5	I join a course to make new friends	New Peers	3.10 (1.25)	18	2.21 (1.81)	18
6	I join a course that will be useful for my degree	Usefulness	3.88 (0.95)	3	2.81 (2.06)	13
7	I join a course that will be useful for my career	Career-oriented	3.96 (0.89)	2	2.81 (2.05)	14
8	I join a course with the content of the latest concepts	Knowledge	3.81 (0.95)	5	2.72 (2.01)	15
9	I prefer pure Lab courses	Lab	3.09 (1.13)	19	2.20 (1.8)	19
10	I prefer the Lab cum theory course	Lab cum Theory	3.18 (1.11)	17	3.47 (1.11)	12
11	I prefer courses with no payment at the time of registration	No fees	3.8 (1.12)	6	3.83 (1.04)	4
12	I select courses that are easy/ familiar to me	Easy	3.82 (0.99)	4	3.91 (0.9)	3
13	I select courses based on the feedback given by seniors as easy / essential /interesting course	Senior Feedback	3.42 (1.16)	12	3.61 (1.06)	8
14	I select course offered by the department that I preferred to study but could not, so I selected the course offered by them	Interested Discipline	3.29 (1.15)	13	3.57 (1.09)	10
15	I select the course of my interest	Interest	4.13 (0.86)	1	4.14 (0.8)	1
16	I select a course that will help me score a higher percentage	Boost Marks	3.6 (1.01)	9	3.93 (0.91)	2
17	I opt for courses handled by teachers last time whom I am passionate about	Teacher-oriented	3.28 (1.14)	14	3.51 (1.11)	11
18	I select the course that has on the spot study / discussions as a component	On the Spot Study	3.57 (1.08)	10	3.7 (0.99)	5
19	I select the course that will be challenging for me	Challenging Course	3.5 (1.02)	11	3.69 (0.97)	6
20	I prefer courses offered by my own department	Own Discipline	3.21 (1.15)	16	3.62 (1.03)	7
21	I prefer courses offered by another department other than my own	Other Discipline	3.67 (1.02)	8	3.57 (1.03)	9

Source: Computed from scores of 5-point scale given for the statements

Note: Figures in the parenthesis indicate standard deviation; Blue – First three ranks

Table 3 presents the average mean score for each item computed by the responses of undergraduate and postgraduate respondents. The highest mean score values for postgraduate courses were selection of courses based on interest, career-oriented and usefulness for the major. Whereas the mean score values were highest among the undergraduate respondents for courses of their interest, boosting marks and being easy to complete.

The standard deviation for these mean scores was less than one. The perspectives of postgraduate and undergraduate students have a marked difference. To verify further, rank correlation was applied between the ranks weighed for postgraduate and undergraduate mean scores.

Spearman rank correlation between the ranks $= 0.562$
This confirmed that the perceptions of the postgraduate and undergraduate respondents were moderately correlated. The desire differed with age and level of tertiary education.

Identification of Variables Influencing the Choice of Elective Courses
Factorial investigations were conducted for all 21 originally selected variables for the final-year postgraduate and undergraduate student respondents. The analysis helped in forming a comprehensive picture of the multi-dimensional relationships between the choice of elective courses and their determinants. Tables 4 to 6 display the factor analysis results.

Table 4: Tests for Sampling Adequacy

Test		PG	UG
Kaiser-Meyer-Olkin (KMO)		.892	.934
Bartlett's Test of Sphericity	Chi-Square	2967	13380
	Sig.	.000	.000

KMO measuring the sampling adequacy to proceed with the factor analysis was good (Table 4). An additional measure of the strength of the association between the variables was provided by Bartlett's test. The idea that the correlation matrix was an identity matrix was put to the test. It took a significant (0.00) Bartlett's Test of Sphericity result to reject the null hypothesis. This suggested that there was no identity matrix in the correlation matrix. The percentage of the original variables' variance that the extracted components were able to account for is explained by communality. The number of retrieved components, whose total should equal the number of items that underwent factor analysis, was indicated in the eigenvalue. Only the Initial Eigenvalues and the Extracted Sums of Squared Loadings were relevant for analysis and interpretation. The existence of eigenvalues larger than one was necessary to determine the number of components or factors indicated by the variables that were chosen.

Table 5: Total Variance Explained - Extraction Sums of Squared Loadings

Factor	Postgraduates			Undergraduates		
	Total	Percentage of Variance	Cumulative Percentage	Total	Percentage of Variance	Cumulative Percentage
1	7.468	35.564	35.564	8.857	42.175	42.175
2	2.565	12.216	47.780	2.440	11.617	53.793
3	1.561	7.433	55.214	1.167	5.559	59.352
4	1.199	5.708	60.922	1.021	4.864	64.216
5	1.016	4.836	65.758			

As per the latent root criterion, factors with a cut-off value of 1.0 for the eigen value to be retained. Thus, five factors for PG and four factors for UG, with eigen value greater than 1 are retained (Table 5). They were effective in capturing all the traits or elements that the listed 21 factors emphasised. 66 percent of the variance was explained by the five components that were extracted together for PG (information contained in the 21 original variables). On the other hand, for the final undergraduate respondents, information found in the 21 original variables were the four components retrieved collectively for UG account which accounted for 64 percent of the entire variation.

Table 6: Rotated Component Matrix[a]

Variables	Postgraduates					Undergraduates			
	Component					Component			
	1	2	3	4	5	1	2	3	4
Availability	-.075	.070	.805	.070	.136	.216	.570	.207	.005
Peer Suggestions	.277	.324	.726	.057	-.100	.195	.831	-.035	.160
Family Suggestions	.560	.172	.592	.035	.108	.301	.669	-.021	.337
With Peers	.291	.310	.728	.093	-.017	.194	.818	.033	.197
New Peers	.500	.170	.444	.072	.349	.373	.559	.088	.340
Useful	.048	.125	.220	.819	.243	.090	.079	.846	.106
Career-oriented	.122	.104	.045	.871	.200	.133	.028	.834	.135
Knowledge	.319	.214	.007	.752	.129	.217	.051	.749	.308
Lab	.765	-.039	.219	.148	.088	.277	.276	.121	.783
Lab cum Theory	.768	.078	.057	.172	.124	.276	.259	.218	.753
No fees	-.105	.662	.115	.167	.072	.124	.442	.475	.133
Easy	-.141	.719	.234	.152	.151	.242	.493	.530	-.136
Senior Feedback	.362	.604	.178	.029	.110	.462	.443	.295	.216
Interested Department	.262	.573	.407	-.004	.047	.575	.442	.185	.168
Interest	.009	.221	-.209	.403	.645	.369	-.032	.671	.005
Boost Marks	.322	.472	-.050	.292	.452	.514	.285	.549	-.145
Teacher-oriented	.460	.522	.218	.113	.291	.759	.351	.119	.099
On-the-Spot-Study	.350	.462	-.026	.254	.451	.729	.218	.318	.171
Challenging Course	.432	.115	.080	.248	.583	.706	.084	.270	.302
Own Discipline	.384	.469	.356	.319	-.217	.651	.333	.179	.146
Other Discipline	.069	.039	.199	.108	.803	.216	.570	.207	.005
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.									
	a. Rotation converged in 9 iterations.					a. Rotation converged in 6 iterations.			

Source: Computed from primary data

The graph of the eigenvalues against all the factors, known as the scree plot (Appendix I), supported the number of factors that needed to be kept. The point at which the curve began to flatten was the focal point. The postgraduate curve appears to have flattened between components 4 and 5. However, the eigenvalues were less than 1 starting with factor 6, so only 5 factors were taken. The scree plot among undergraduates had a sharp curvature change in factor 4. So, 4 factors were considered. The factor analysis led to the retention of five factor dimensions for PG and four factors for UG respectively. Factor loading is the correlation coefficient between a variable and the underlying factor. Factor loadings (higher than 0.7) were used to assign variables to a factor. The rotation aids in lowering the number of factors that have high loadings on the variables being studied. Rotation facilitates the analysis's interpretation.
The rotated factor matrix for 21 variables were grouped with the factors and highlighted in differentiated colours for each in Table 6.

Final-year Postgraduate Students

F1 – Nature of the Course

From the factor loadings, it was obvious that the first factor (F1) explained 35.56 percentage of the variation. The nature of course characteristics include lab and lab-cum-theory. It was observed that the dominant variables were positively loaded with this factor. Empirical visibility of the subject enhances its competence. Practical classes were desirable rather than mere theoretical ones. The approach of simulation of core concepts makes even the hard-core subject register in students minds with full conviction. The practical skills gained were treasured in both academic and professional frameworks. It was a reflection of student's interest and vibrant trends in higher education. Learning by doing is the order of the day.

F2 – Academic and Financial Lightness

The variables deduced from the second factor (F2) were no fees and an easy course. The percentage of variation explained was 12.2. Postgraduate students in their final year preferred light courses so that they can concentrate more on their core major and project proposal. This supplemented the preference for lab courses. The lab courses were always offered with

an additional fee. But the contrary fact was that students prioritised joining elective courses with no or a lesser fee. This was verified by the moderate loading of the factor variables.

F3 – Role of Peers

The third factor (F3) was loaded heavily and positively with three variables namely availability, peer suggestions and being with peers. It explained 7.4 percent of the variation. This underlined the factual truth that peers play a vital role in youth's decisions today. The phenomenon of the majority of students from the same major opting for the same course can be understood through the lens of group behaviour and social influence. They assumed that if many of their peers were selecting the course, then there must be valid reasons for its popularity, even if they do not have all the information themselves. Students find it comfortable to be part of a cohort that was navigating the same educational path. It was important for students, particularly at the postgraduation level, to be aware of these influences and make decisions based on their own interests, goals and informed choices.

F4 – Academic Motivation

The fourth factor (F4) explained 5.7 percent of the total variation. It was constituted by three variables namely usefulness, career orientation and knowledge. This clearly suggested the academic preparedness and intrinsic motivation of postgraduates. It highlighted their intense involvement in learning and their thirst to eventually equip themselves and be successful in their dream job. A strong desire for achievement shapes persistence decisions. Academic self-discipline was likely to influence academic performance as well. Prospects of employment and earning opportunities were likely to pull students towards a course.

F5 – Diverse Interest

The fifth factor (F5) accounted for 4.8 percent of the total variation. It was primarily constituted by two variables like interest towards the course and other discipline courses. Diversification of courses outside their own major was realised as a pull factor that makes students jump towards outward mobility. Students were heterogenous, they come from different academic backgrounds lean towards other fields and wish to explore subjects that they have not considered before. They have varied interest and wish to explore new fields and develop varied skill sets that help them set their career paths. Finally, a diverse range of learning is customised to develop a positive atmosphere that leads to personal and academic enrichment.

The findings were in alignment with the results of a study on a cohort of French students, which discovered that factors such as course cost, expected wage, and type of course that yields the highest expected utility could affect students' choices and, consequently, their expected utility. Individual differences exist in intrinsic preferences as well as specific preferences for particular disciplines of study (Rapoport & Thibout, 2018). Thus, academic courses associated with career growth, superior in terms of the latest concepts and global relevance, and highly recognised pathways for nurturing research were the pull factors influencing the choice of electives.

Final-year Undergraduate Students

F1 – Course Package

F1, the Course Package described 42.18 percent of variation and was dominated by variables like teacher-oriented, on-the-spot-study, challenging courses and own discipline. Undergraduate student's choices were multidirectional and complex, encompassed by many expectations of the course on their choice list. Teacher-specific and accommodating to one's own major were also realised in the spectrum of decision-making. Another interesting fact was that students wish to gain experiential learning in their courses through on-the-spot-study for which they have to make an additional fee payment. This brought out the dynamic expectations and intentions of undergraduate students when joining an optional course.

F2 – Role of Peers and Family

F2, the role of peers and family encompassed three variables with high factor loadings. Peer's suggestions, family suggestions and being with peers accounted for 11.6 percent of the variation. The suggestions of family and friends play a vital role in pushing a student to take a course. The collective decision of students made it unidirectional. Selecting blindly or following the crowd to popular courses was a common feature observed in undergraduation. When many students were opting for a specific course, it signalled to others that the course was a wise choice. Peer influence was a powerful driver of behaviour, especially among young people. Friends who have chosen a specific course exerted pressure on their peers to make similar choices through both direct or indirect ways of persuasion. Through this group behaviour, individuals within a group interact, make decisions and influence each other. But it was important for students to carefully consider their own interests, goals and aptitudes, when making such a significant decision.

Family intervention was a mediating variable that supported and strengthened student's mobility towards a course. Family members serve as role models for the students. They stimulate interest in a particular field or may even discourage students from making certain choices based on the challenges observed within the family. Parents expectations can shape student's choices or exert pressure on them. Undergraduate students have reported considering family guidance as a foundation for their choice. Thus, it was important for the students to strike a balance between family expectations and pursue their own aspirations, asserting their autonomy.

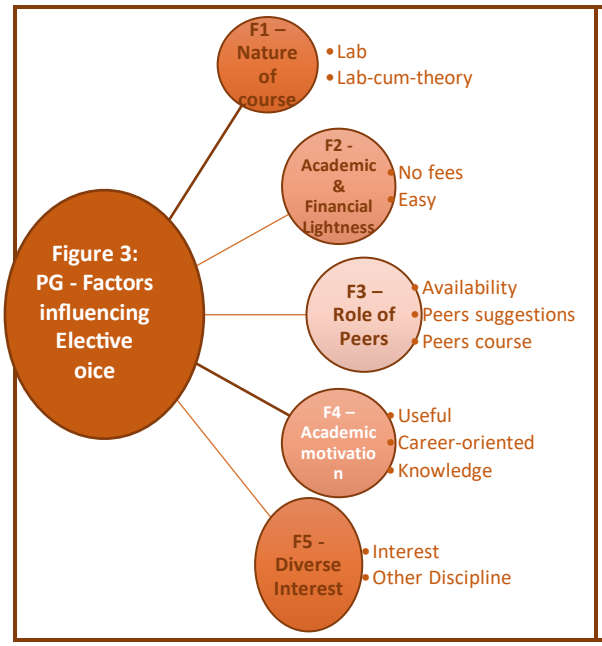
F3 - Academic Motivation

The third factor (F3) explicated 5.56 percent of variation and had high factor loadings with variables like usefulness, career-orientation, knowledge and interest. Academically motivated students consistently enjoyed learning, therefore took extra care in their selection of courses. They were competent and willing to meet the new learning challenges and confident in succeeding in the future. Students motivated for learning in higher education vary. They may wish to be top scorers, have a thirst for learning or plan to get their dream job. Prominent courses that were suitable and relevant for the labour market were more influential. These factors become key players in the arena of higher education enabling academic nourishment for youth.

F4 - Nature of the Course

The last factor F4, explained 4.86 percent of the variation and was constituted by two variables lab and lab-cum-theory. Visual and experiential learning helped students grasp complex concepts easily. It kindled student's curiosity and makes learning interactive, engaging and motivating. It enabled students to prioritise and foresee their career in the same area. The emergence of lab-based courses, catering to new trends roots dynamism in choices. Educational institutions strived to balance and accommodate the diverse needs of students, through lecture-based and lab-based courses.

The choice of electives from a basket of courses depends on interests and career objectives, subject to degree requirements. Academic freedom for students emphasises the growth of learners as independent, critical thinkers (Macfariane 2012).



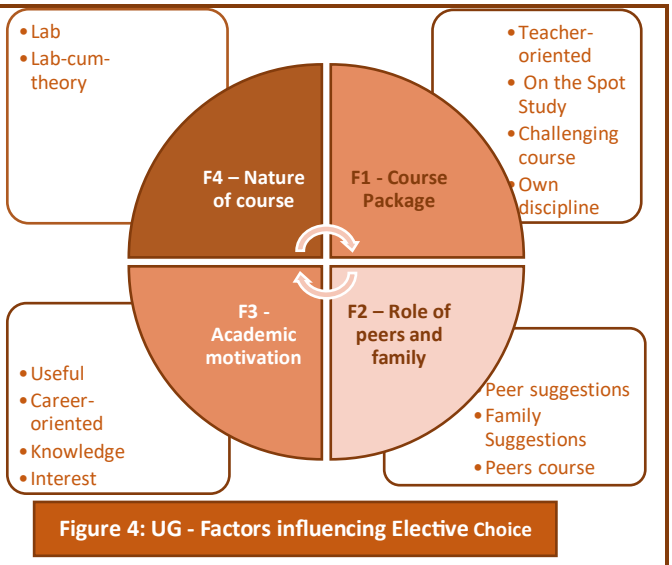


Figure 4: UG - Factors influencing Elective Choice

Thus, among postgraduates, the determining factors were: first, the nature of the course including lab and lab-cum-theory; second, academic and financial lightness with no fees and an easy course; third, the role of peers encompassing peer suggestions and being with peers; fourth, academic motivation variables like usefulness, career orientation and knowledge; and fifth, diverse interest encircling interest in the course and other discipline courses (Figure 3). Among undergraduate's course package including teacher-oriented, on-the-spot-study, challenging courses and own discipline the first factor was followed by the role of peers and family as the second influential factor, followed by academic motivation variables like usefulness, career-orientation, knowledge and interest as the third factor and finally the nature of the course, like lab and lab-cum-theory were the fourth factor (Figure 4).

Implications

- Students have appreciated and realised the intrinsic value of optional courses. The main recommendations include flexibility in the number of seats. This will be an automatic indication of highly preferred courses which will lead to the proliferation of trending courses and the reworking of low-demand courses.
- More of experiential learning courses were preferred by the students, which recommended that all courses to have a proportion of it.

Conclusion

Educational choices were influenced by a variety of factors, including family, culture, income, and employment prospects. This was integrated into the choice-based credit system. In it, a comprehensive approach for making personal decisions was described. Although the way of operation varies depending on human preferences, rational adaptation was the primary mechanism in the process.

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Appendix I