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Analysis of Choice Based Credit System in Higher Education

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ABSTRACT

The institutions of higher education are in need of an infusion of a new model of education in order to keep the curriculum in pace with changing environment which includes technology adoption, changing industry requirement, changing aspiration of students and changing expectations of society. It is expected that two models and two systems of higher education are going to get importance in this changing environment. The two models of higher education which are going to be relevant in future days are (1) Conventional classroom-based education model and (2) Technology supported online ubiquitous education model. The two higher education systems which are expected to be attractive to the learners are Choice Based Credit system and Competency based Credit system. University Grants Commission has come up with the Choice Based Credit System (CBCS) programme in which the students have a choice to choose from the prescribed courses, which are referred as core, elective or minor or soft skill courses and they can learn at their own pace and the entire assessment is graded based on a credit system. The basic idea is to look into the needs of the students so as to keep up-to-date with the development of higher education in India and abroad. CBCS aims to redefine the curriculum keeping pace with the liberalisation and globalisation in education. CBCS allows students an easy mode of mobility to various educational institutions spread across the world along with the facility of transfer of credits earned by students. In this paper, we have attempted to make a comparative analysis of "Choice Based Credit System" using SWOC analysis and ABCD analysis.

Key-words : SWOC analysis, ABCD analysis, Choice Based Credit system, Higher education model.

1. Introduction :

India's higher education system is considered to be the most challenging in terms of access, equity and relevance, reorientation of programmes by laying emphasis on quality, values and ethics together with the assessment of institutions for their accreditation. In service sector it is the third largest in the world. The institutions of higher education are in need of infusion of new models in order to keep the curriculum in pace with changing environment which include technology adoption, changing industry requirement, changing aspiration of students and changing expectations of society. To improve the quality of education, its acceptability to youngsters, its ability to cultivate research and innovation, and keeping the pace of its contribution to the development of industry and the society, changes & innovations in higher education are essential. It is expected that two models and two systems of higher education are going to get importance in this changing environment. Higher education innovations include academic freedom to develop new curricula, design relevant courses, frame new syllabi and introduce new evaluation methods and flexibility for the students to have a greater choice of courses appropriate to their interests, needs and long-term goals [1-2].

The two models of higher education which are going to be relevant in future days are (1) Conventional classroom based education model and (2) Technology supported online ubiquitous education model [3-4]. The two higher education systems which are expected to

be attractive to the learners are Choice Based Credit system and Competency based Credit system. Presently Indian higher education system follows credit system of assessment and evaluation. A credit system is a systematic way of describing an educational programme by attaching credits to its components. The credits in higher education systems may be based on different parameters, such as student workload, learning outcomes and contact hours. University Grants Commission has come up with the Choice Based Credit System (CBCS), a programme in which the students while choosing the prescribed course, which is the core, can opt for any elective or minor or soft skill courses and the entire assessment is graded, based on a credit system. The CBCS provides choice for students to select the elective components in any other institution as well.

Choice based credit system (CBCS), or a cafeteria like system is the solution for this type of transformation from the traditional teacher oriented education to a student-centred education. Taking responsibility for their own education in this way, students can benefit the most from all the available resources. In CBCS, a student can earn a few credits from one college and transfer the credits to some other college. A student who is working on a part-time basis can earn a few credits and stretch his studies to four or five years according to his convenience. There is no compulsion to complete a degree programme in three years. There is a provision to change the college after earning a few credits if desired. CBCS has the facility to transfer the credits from one institution to another and considers few credits earned in a related industry within the curriculum. Students can also add credits from creative and performing arts which are becoming popular in campuses. Students are allowed to choose courses of inter-disciplinary nature as well and based on their choice ensure depth of study. Hence, with faculty advising, CBCS-1 can offer a very flexible open system for quality improvement in higher education. As per UGC, the choice based credit system not only offers opportunities and avenues to learn core subjects but also exploring additional avenues of learning beyond the core subjects for holistic development of an individual and facilitate to bench mark Indian courses with best international academic practices.

Competency-Based Credit System (CBCS-2) is a significant improvement in education model. It provides an opportunity to personalize the learning in higher education by means of providing a proper direction while choosing the subjects, and in assessment. Competency-based programs allow students to demonstrate academic competence through a combination of assessment and documentation of experience to gain academic credit. It allows students to progress at their own pace, incorporates the process of prior learning assessment, and offers a logical framework for improving knowledge, skills and experience as per the demands of the industry to the extent decided by the institution. A student need not necessarily have to take predetermined required and elective courses to be taught by approved faculty members. Rather, it would mean that a student has demonstrated a defined set of proficiencies and mastery of knowledge and content [4].

2. Choice Based Credit System in India :

University Grants Commission (UGC) has suggested the Choice Based Credit System (CBCS) to be adopted in Indian universities in which the students have a choice to choose from the prescribed courses, which are referred as core, elective or minor or soft skill courses and they can learn at their own pace and the entire assessment is graded based on a credit system. The basic idea is to look into the needs of the students so as to keep up-to-date with development of higher education in India and abroad. CBCS aims to redefine the curriculum keeping pace with the liberalisation and globalisation in education. CBCS allows students an easy mode of mobility to various educational institutions spread across the world along with the facility of transfer of credits earned by students [5 - 6]. CBCS has following features :

(1) CBCS is uniformly implemented in all central, state, and other recognized universities in India.

(2) CBCS consists of three types of main courses categorised as Core courses, Elective courses and Foundation courses.

(3) CBCS also has non-credit courses to be chosen from a pool which will be assessed as 'Satisfactory' or "Unsatisfactory'. Non-credit courses are not included in the computation of SGPA/CGPA.

(4) All the three main courses will be evaluated and accessed for calculation of total credit and grade to provide for an effective and balanced result.

(5) Core course consists of compulsory subjects to be studied by a student to get the specified degree.

(6) Elective courses consist of a pool of subjects from which student has to choose a specified number of subjects for his/her studies to get degree. The elective courses may contain pool of subjects which may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill.

(7) The elective courses are further subdivided into following three categories :

(a) Discipline Specific Elective (DSE) Course: These are the elective courses may be offered by the main discipline/subject of study. The College may also offer discipline related Elective courses of interdisciplinary nature.

(b) Dissertation/Project: It is an elective course designed to acquire special/advanced knowledge, such as supplement study/support study to a project work, and a candidate studies such a course on his own with an advisory support by a teacher/faculty.

(c) Generic Elective (GE) Course: It is an elective course chosen generally from an unrelated discipline/subject, with an intention to seek exposure.

(8) Foundation Courses are also called Ability Enhancement Courses (AEC) and are of two types :

(a) Ability Enhancement Compulsory Courses (AECC) : These courses are based upon the content that leads to Knowledge enhancement; (i) Environmental Science and (ii) English/MIL Communication. These are mandatory for all disciplines. SEC courses are value-based and/or skill-based and are aimed at providing hands-on-training, competencies, skills, etc. Ability Enhancement Compulsory Courses (AECC) include Environmental Science, English Communication/MIL Communication.

(b) Skill Enhancement Courses (SEC) : These include the courses may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge.

CBCS comprises following basic features :

(1) Semesters: Each year is divided into two semesters and the assessment of students is done semester wise. A student progress is calculated on the basis of the courses taken rather than time taken to complete the course like three years for science, arts, commerce or four years for engineering etc. Each semester will have 15–18 weeks of academic training and assessment which is equal to 90 teaching days. There is flexibility in creating the curriculum and assigning credits based on the course content and hours of teaching.

(2) Credit system: Each course is assigned a certain credit. When the student passes that course, he earns the credits which are based on that course. If a student passes a single course in a semester, he does not have to repeat that course later. The students can earn credits according to his pace by taking any amount of time.

(3) Provision of Credit transfer: If for some reasons, a student cannot cope with the study load or if he falls sick, he has the freedom to study fewer courses and earn fewer credits and then he can compensate this in the next semester. A student can also take the remaining credits in another college.

(4) Comprehensive continuous assessment : There is a continuous evaluation of the student not only by the teachers but also by the student himself through assignments, open book exams along with semester end examinations.

(5) Allotment of Grading: UGC has introduced a 10-point grading system in CBCS to allot grading as shown in the following table 1.

(6) Counting of Credits in Credit System : One credit per semester is equal to one hour of teaching, which includes both lecture (L) or tutorial (T) or two hours of practical work/field work (P) per week. A study course can have only L component or only T or P component or combination of any two or all the three components. The total credits earned by a student for each semester is L+T+P.

(7) In compliance with the global grading system : All the major higher education institutions across the world are implementing this credit system. For instance, the European Credit Transfer System (ECTS) in Europe's universities, the 'National Qualifications Framework' in Australia, the Pan-Canadian Protocol on the Transferability of University Credits The UK Credit Accumulation and Transfer System (CATS), and even in the US system, Japan system, etc. are based on credit system.

Table 1 : Allotment of Grading in CBCS as per UGC guidelines.

S.No.	Letter Grade	Grade	Grade Point
1	O	Outstanding	10
2	A+	Excellent	9
3	A	Very Good	8
4	B+	Good	7
5	B	Above Average	6
6	C	Average	5
7	P	Pass	4
8	F	Fail	0
9	Ab	Absent	0

3. Analysis of CBCS :

(1) SWOC Analysis :

Based on the above features, the Strength, Weakness, Opportunities and Challenges (SWOC) [2] of CBCS are identified and analysed as follows :

Strength of CBCS :

- (1) Student centric
- (2) Focus on continuous assessment
- (3) More elective courses
- (4) Opportunity to choose Dissertation/Project
- (5) Opportunity to transfer credit between universities
- (6) Loss of year/semester due to attendance shortage in any one subject is avoided. Student who fails to maintain required attendance in one subject has to reappear only for that subject in order to clear the entire course.

Weakness of CBCS :

- (1) Less focus and credits for core area or main subjects
- (2) Students are compelled to study languages in higher education level
- (3) The option to take courses according to their ability and pace is limited. There is no freedom for the first year student to take an advanced course or a third year student to take an introductory course.

(4) Students are compelled to be inside the classroom for the entire five hour per day schedule leaving no scope for independent study.

Opportunities for CBCS :

(1) Students can choose papers outside of their core area so that they can be specialised in multi-discipline.

(2) Students have opportunity to take extra credits more than minimum requirement to complete the course which will give weightage to encashing further opportunities.

(3) Higher education gradings are acceptable internationally so that students can compete international opportunities.

(4) Credit-transfer opportunity and possibility of taking different courses in different colleges simultaneously to complete the total credit requirement within minimum period.

Challenges for CBCS :

(1) For any new system, usually there will be a strong resistance to change from every quarter of the academic world.

(2) Accepting grade points in subject instead of marks and letter grade instead of exact total marks is difficult due to the fact that allotment of individual ranking is not possible by merely referring grade points and letter grades.

(3) Opportunity to take credits outside the core subject area may dilute the depth in core area of studies.

(4) Students may face dilemma in choosing the subjects due to their inexperience in predicting future demand.

(2) ABCD Analysis :

ABCD analysis consists of identifying and reasoning Advantages, Benefits, Constraints, and Disadvantages of the system from the organizational, Operational and stakeholders point of view [7-12]. Various advantages, benefits, constraints, and disadvantages of CBCS system are listed and reasoned below :

Advantages :

(1) The CBCS offers a 'cafeteria' approach in which the students can choose courses of their own choice from out of a given menu. This will help a student to study the subjects of his own interest.

(2) The credit system allows a student to study what he prefers based on his own interest. This feature allows a student to utilize his free time and manipulate financial situations.

(3) Students can learn without rigidity of following fixed set of subjects in each semester. This would help them to work outside during certain semesters.

(4) Students can opt for additional courses and can achieve more than the required credits to show their efficiency and weightage in their specialization. Some students can also takeup multi-specialization and earn more credits than required.

(5) Students can also opt for an interdisciplinary approach to learning.

(6) Inter college/university migration within the country and outside the country becomes easy with the transfer of Credits. This means that it will be easier for foreign universities to come and offer courses in India.

(7) Can opt for part of the course in one institute and the other part in another institute. This will help in making a clear choice between good and bad colleges/ institutes.

(8) The students have more scope to enhance their skills and more scope of taking up projects and assignments, vocational training, including entrepreneurship.

(9) The system improves the job opportunities of students.

(10) The system will help in enabling potential employers assess the performance of students on a measurable and uniform scale.

Benefits :

- (1) Shift in focus from the teacher-centric to student-centric education.
- (2) Students may undertake as many credits as they can cope with (without repeating all courses in a given semester if they fail in one/more courses).
- (3) CBCS allows students to choose inter-disciplinary, intra-disciplinary courses, skill oriented papers (even from other disciplines according to their learning needs, interests and aptitude) and offer more flexibility for students).
- (4) CBCS makes education broad-based and at par with global standards. One can take credits by combining unique combinations. For example, Physics with Economics, Microbiology with Chemistry or Environment Science etc.
- (5) CBCS offers flexibility for students to study at different times and at different institutions to complete one course (ease mobility of students). Credits earned at one institution can be transferred.
- (6) Students get better exposure and networking through attending the course in many colleges.

Constraints :

- (1) For the institutions, the number of students in a give class is not constant due to the fact that students can take any subject in any college for a given course.
- (2) The workload of a faculty member may vary during different semesters of a year.
- (3) The college is compelled to provide good infrastructure, best faculty, large number of elective at low fees to attract more students for a given course.
- (4) It is time consuming and expensive if a student takes different subjects in different colleges during a same period of time.
- (5) Students cannot stay in a hostel of a particular college due to their study in different colleges.
- (6) Students have to pay college fee for different colleges for their subjects taken in such a way that the sum of the fees paid will be always higher than the fee paid to an individual college.

Disadvantages :

- (1) Not very easy to pinpoint the achievers.
- (2) Teachers' workload may fluctuate beyond prediction.
- (3) Needs proper and good infrastructure for a universal spread of education.
- (4) Difficult to estimate the exact marks due to the reason that the marks card contains letter grades and grade points than individual marks scored in a subject.
- (5) Demand good infrastructure for dissemination of education
- (6) Since there is no pressure to complete all subjects of a course within a fixed time, many students once takes break, may not continue to complete the course due to many reasons.

4. Conclusion :

The UGC has always initiated measures to bring efficiency and excellence in the Higher Education System of India. The basic motive is to expand academic quality in all aspects, right from the curriculum to the learning-teaching process to examination and evaluation systems. However, multiple methods are followed by different universities across the country in examination, evaluation and grading system. Considering this diversity, the implementation of the choice based credit system seems to be qualitatively superior although it is not to be considered s ultimate. The comparative analysis using SWOC and ABCD has put ABCD analysis on greater footing.

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