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ABCD analysis of Stage Model in Higher Education

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ABSTRACT

Most of the higher education institutions affiliated to public Universities introduced value additions to reinforce the relevance and strength of the course even if they had constraints of autonomy. Of late, the cry for quality has brought forward the ++ model in various under graduate and post graduate courses, which is competency building through ‘stage based quality assurance strategy’ that promotes bridging curriculum gaps, imparting skills and creating a mindset favourable to managing business or work as entrepreneurs. The institution can develop a model of student development and enhance graduate attributes by means of focused development plan. In semester based courses, the institution can identify various attributes essential for earning the degree and focus on a particular attribute in each semester. Based on our experience at SIMS (Srinivas Institute of management Studies), we have developed a stage model for all the courses to focus on a particular graduate attribute during each semester by designing the programmes in such a way that at the end of the course, students possess the expected graduate attributes. This has been named as higher education stage model. In this paper we have analyzed the various features of Stage Model intervention technique through the analyzing framework called ABCD technique. The results supported the logic of using ABCD analyzing technique for any system/concept performance evaluation.

Keywords : ABCD analysis framework, Stage model of higher education, Factors affecting stage model.

I. Introduction

Among the various challenges for Higher Education in India is the need to double capacity – not just in terms of seat count but “quality” seats count. Industry and Academia connect is necessary to ensure curriculum and skills are in line with requirements. Skill building is really very crucial to ensure employability. Industry and students are expecting specialized courses to be offered so

that they get the latest and best in education and they are also industry-ready and employable. To make higher education more effective, lot of innovations and best practices have to be adopted to attract student and ensure them quality education. Presently the higher education system has grown in such a way that, there are 45 Central Universities, 330 State Universities, 130 Deemed Universities, 210 Private Universities, and about 38,000 colleges imparting higher education in India.

After independence, the general pattern of universities affiliating colleges continued. Historically, the affiliating system of colleges was originally designed when number of universities were reportedly less. The university could then effectively oversee the working of its affiliated colleges, act as an examining body and award degrees. However, with rapidly growing increase in number of colleges and educational institutions, the system became unmanageable and started losing its governance. Now it is becoming increasingly difficult for any university even to effectively attend to the various needs of the affiliated/constituent colleges in a regular way and that too within reasonable time. The Acts, Statutes, Ordinances and Regulations of the University and its common system governing all colleges irrespective of their characteristic strengths, weakness and locations, have adversely affected the quality and academic development of individual colleges. As a result, all affiliated and constituent colleges of a university are supposed to strictly adhere to be governed by the given system and any initiative and innovation, outside the given ambit, taken by a particular college at its own cost and initiative is often treated by the University as infringement of their dictum (Mukhopadhyay and Pabitra, 2015). Since any college can hardly afford to incur unnecessary displeasure of its parent university even in respect of matters falling in its ambit, they look to the parent university for guidance. They do not have freedom to modernize their curriculum to make it relevant to the specific needs, local resources, and aspirations. Moreover, the colleges which have capacity and capability for offering programmes of higher standards do not have the freedom to do so within the prevailing routine and rigid bureaucratic style of functioning of the university system of education. The university's monitoring of quality of teaching, research, physical facilities like library and laboratory equipment is often nominal. The system is made so complicated that nothing gets done on time and ultimately it means the higher education delivery system becomes ineffective and inefficient and finally the objective of education gets defeated. Since affiliated colleges have to depend on the curriculum, and examination system of parent universities, they

have limited scope in improving the quality of higher education. The affiliating universities are mostly State government owned universities and due to their stringent policies, always lagging behind in curriculum improvement. The curriculum is predesigned by the affiliated university and worse still, outdated and seldom relevant, and the dominant mode of instruction is information-loaded, one-way lectures from the teacher to the student. The curriculum in most cases is out-dated and irrelevant since the universities are often not enthusiastic in keeping their curricula up to date and relevant. Teaching-learning practices are mostly examination-oriented with focus on rote learning and memorization. In such environment, affiliated colleges have no freedom to change the curriculum according to industry requirements or to improve the competency of the students of different courses as per the requirement in the society. To solve this problem, some of the affiliated colleges of public universities develop innovative value addition models to improve graduate attributes in higher education institutes. This became essential to self-financing colleges to maintain required student admission for sustainability. As a result it became the responsibility of affiliated colleges to transform higher education pedagogy to make the student as an active participant in the education process and the role of a teacher is that of a facilitator as opposed to an instructor. The instruction is designed to engage students in learning experiences that not only enable them to learn content but also to develop greater passion for learning enabling them to 'learn to learn' and to be lifelong learners.

II. Literature Review on ABCD Analysis

Recently Aithal et. al. (2015"b") developed ABCD analyzing framework to analyze business models/concepts and to study its effectiveness in providing value to its stake holders and sustainable profit through expected revenue generation. Application of ABCD analysis results in an organized list of a business advantages, benefits, constraints, and disadvantages in a framework of determinant issues (area of focus) and various key issues under the determinant issues affecting the business/concept and critical effective elements. This analyzing technique being simple, gives guideline to identify and analyze the effectiveness of any system, business model or operational concepts developed.

Reshma et. al. (2015"a") have analysed the characteristics of "Working from Home" e-business model using 'ABCD Analysis Technique'. Based on various factors which decide the Working from Home system, a model of flexitime working of present employment is evaluated. It is found

that the factors supporting advantages and benefits are more effective compared to constraints and disadvantages of this model, so that working from home model may become more popular from the prospective of employers and employees in the organization in the future (Reshma et. al. 2015”b”).

Recently ABCD analysis framework was used for Black ocean strategy concept (Aithal 2015”c”). The advantages, benefits, constraints, and disadvantages of black ocean strategy on organizational issues, administrative issues, employee’s issues, business issues, external environmental issues and operational issues for an organization were identified and analysed. The analysis revealed the relative merits and limitations of other business strategies such as blue ocean strategy and red ocean strategy vis-à-vis black ocean strategy.

III. ABCD Analysis of Higher Education Stage Model

Recently Aithal and Suresh Kumar (2015”a”) developed an integrated education model called stage model for enhancement of graduate attributes in higher education institutions. The Higher Education Stage model help the Institution to ensure the achievement of learning outcomes such as emotional maturity, social maturity, business acumen, professionalism and intellectual capabilities. The value added programmes are designed in each semester to accomplish the stated objectives of that stage. Based on University syllabus and value added programmes designed in each semester, the students’ progress is evaluated and monitored to promote the students to the next stage. It is observed that students who undergo training as per stated Stage Model would be able to show better performance both in curricular and competitive exams to get better job/higher educational opportunities through enhanced graduate attributes. In stage model concept, an education institution can develop a model of student development and enhance graduate attributes by means of focused development plan. In semester based courses, the institution can identify various attributes essential for earning such degree and focus on a particular attribute in each semester. To overcome the problem of obsolete, irrelevant, inflexible curriculum of many public sector/ government universities, the affiliated colleges offering both undergraduate and post graduate courses are struggling to add industry required skills in the curriculum. Justifiably enough most institutions have introduced value additions to reinforce the relevance and strength of the course. Of late, the cry for quality has brought forward the ++ model in various undergraduate and postgraduate courses, which is competency building through ‘stage based

quality assurance strategy' that promotes bridging curriculum gaps, imparting skills and creating a mindset favourable to managing business or work as entrepreneurs.

In the paper published by Aithal and Suresh Kumar (2015''a'') [2], six stage models were developed for three post graduate courses namely Business Management (MBA++), Computer Applications say (MCA++), Social Work (MSW++), and three undergraduate courses in Business Management say BBM++, Computer Applications say (BCA++), & in Commerce (B.Com++) and the contributions of these models for enhancement of graduate attributes are discussed. By properly designing value added programmes along with the university curriculum, each stage in a semester based undergraduate or postgraduate programme are focussed on a particular aspect of overall industry/community requirement. Accordingly, MBA programme had four stages as to build confidence through communication power augmented through field exposure, interaction with industry experts and case study analysis in first stage, Exploring business directions in second stage by means of encouraging students to identify fields suited to their talents to orient towards direction, a process facilitated by the faculty to help the students realize and arrive at one's own potential, Converting students into a strategic innovator through team exercises and group competitions in planning strategies in third stage, and finally in the fourth stage students are elevated as effective decision maker. Similarly various stages of integrated development is planned and implemented in other postgraduate and undergraduate courses. The effectiveness of these stage models can be analysed using various analysing tools/techniques used for analysing operational concepts like SWOT analysing framework, Competitive Profile Matrix (CPM) analysis, EFE & IFE Matrices, BCG analysing frameworks, Porter's Five Forces Model, and PESTLE Analysis, ABCD analysing framework etc. to know the factors affecting the stage models and their constituent critical elements. In this paper, we have used ABCD analysing framework to analyse the "stage model" in higher education system. ABCD is an acronym that stands for Advantages, Benefits, Constraints, and Disadvantages. Application of ABCD analysis results in an organized list of a business advantages, benefits, constraints, and disadvantages in a systematic matrix. The entire framework is divided under various determinant issues and key issues under the determinant issues followed by an analysis of advantages, benefits, constraints and disadvantages, and constituent critical elements governing each of these.

Table 1 : Analysis of Stage model using ABCD framework.

Particulars	Advantages	Benefits	Constraints	Disadvantages
Organizational Issues				
Vision	Gives direction	Creating innovators	Difficult to implement	Varying expectations
Strategy	Time bound outcome	Sustained growth	No example to follow	Difficult to implement
Capability	Linking academics to industry	Learning outcomes	Practical exposure	Prime mover
Sustainability	Increased demand for the course	Enhanced enrollment	Balancing needs	Require continuous improvement
Autonomy	Autonomy in curriculum design and development	Competitive advantage	Expertise	Time and cost
Leadership and work culture	Dynamism	Team work	Collaboration	Weak leaders
Academic Issues				
Acceptability	Talent orientation	Adaptive	Different teaching styles	Differing learning patterns
Innovation	New methodology and methods	Right mindset	Short of creative potential	Reduced interest
Transaction of learning	Applying learner centric pedagogy	Develop preparedness for change	Addressing needs	Assessing needs
Development	Value addition through versatile learning	Industry readiness	Stagnation	Urge to develop
Student Issues				
Grooming	Nurture Potential	Employability skills and entrepreneurial skill development	Exploring hidden talent	Require more time to spend
Timing	Encourage multitasking in students	Open up avenues to participate	Short span of time	More dedication and work pressure
Curriculum supplements	Intended to integrate learning	Readiness to absorb	Need to simplify	Slow learners
Motivation	Build career aspirations	Creates potential for career choice	Pro-active learning	Additional effort

Faculty Issues				
Focus	Generating self starters	Initiate change in students	Teacher learner incompatibility	Continuous improvement
Capability	Capacity building	Skill acquisition	Low profile	Weak background
Versatility	All round development	Build quality	Scarcity of opportunity	Retaining interest
Interest	Accustom to change	Visible change	Inadequate resources	Positive mindset
Motivation and development	Motivation for development	Consistency	Subjectivity	Re-defining criteria of efficiency
Holistic approach	Attitude and philosophy	Collective Learning	Choice of approach	Inability to combat multiple Task
Issues on Administration Infrastructure And Learning resources				
Methods	Improvised techniques	Innovative methods	Limited resources	Greater dependence
Application	Focused intervention	Greater application	Lack of requisite skill	Individual differences among students
Facilities	Better logistics	Congenial for learning	Fixed and static	Necessitates adjustment
Support	Virtual logistics	Supportive to growth	Tendency to dump blame	High end expectations
Other Stakeholder Issues				
(Need for) parents	Provides alternative	Challenging and satisfactory	Reach	Other options unattractive
(Opportunity for) Institute	Enhanced demand	Brand building	Well oriented faculty	Demands continuous improvement
(Contribution to) Industry	Ready for job professional	Saves cost on training	Grow with time	Less jobs to offer
(Implications for) Society	Creates reservoir of man power	Fill existing and future requirement	Limited sources	Increased expectation

The various key issues identified under the determinant organizational issues are Vision, Strategy, Capability, Sustainability, Autonomy, Leadership and work culture. Here, vision means how an organization looks ahead, strategy is how they adopt ways to realize the vision, capability is how accomplishment is reached, sustainability means how the results are maintained, autonomy means the freedom to perform, and leadership and work culture is a composite of how the organization aim and target the same direction. The various key issues identified under the determinant academic issues are Acceptability, Innovation, Transaction of

learning, and Development. Methods and applications relate to learning while facilities relate to infrastructure and support relate to administration. The various key issues identified under the determinant students issues are Grooming, Timing, Curriculum supplements, and Motivation. It is a forecast of how development is brought about in students in stages, the pace of development, the supplementary inputs adopted and how they are motivated to absorb it. The various key issues identified under the determinant faculty issues are Focus, Capability, Versatility, Interest, Motivation and development, and Holistic approach. The various key issues identified under the determinant Administration, Infrastructure and learning resources are Methods, Application, Facilities, and Support. Methods and application relate to learning while facilities relate to infrastructure and support relate to administration. The various key issues identified under the determinant Other Stakeholders Issues are Need for the parents, Opportunity for the institute, Contribution to the industry, and implication to the society. The stakeholders namely parents look for fulfillment of their needs, institution look for an opportunity to serve the needs, industry continue to be recipient of the resulting contribution and society (community at large gets the ultimate benefit. The advantages, benefits, constraints and disadvantages of the above key issues under each determinant issue are listed in table 1.

IV. Critical Constituent Elements as per ABCD model

As per ABCD framework for higher education stage model analysis, the factors affecting under organizational, Administrative, Academic, Students, Faculty and Other stakeholder's issues are identified. The critical constituent elements of these factors are listed under the four constructs - advantages, benefits, constraints and disadvantages of the ABCD technique and tabulated in tables 2 to 5.

Table 2 : Advantages of stage model.

Sl. No.	Issue	Affecting factors	Critical Constituent Elements
1.	Organizational Issues	Gives direction	1. Identified goals and objectives 2. Organizational identity
		Time bound outcome	1. Standards and policy followed 2. Keeping deadlines
		Linking academics to industry	1. Industry oriented syllabus 2. Students interaction with industry
		Increased demand for the course	1. Value addition 2. Public appeal

		Autonomy in curriculum design and development	1. Collaborate with industry 2. Radical Pedagogy
		Dynamism	1. Role model 2. Walk the talk approach
2.	Academic Issues	Talent orientation	1. Scope for talent exposure 2. Scope for talent development
		New methodology and methods	1. Experimenting new methods 2. New ways of learning
		Applying learner centric pedagogy	1. Involvement of participants 2. Lifelong learning experiences
		Value addition through versatile learning	1. Incorporate skills 2. Operating in new context
3.	Students Issues	Nurture Potential	1. Identify potential 2. Enable insights
		Encourage multitasking in students	1. Provide opportunities 2. Team building
		Intended to integrate learning	1. Tailor made to suit situations 2. Assimilation of knowledge
		Build career aspirations	1. Identify interest 2. Identify suitability
4.	Faculty Issues	Generating self starters	1. Choosing go-getters 2. Continuous motivation
		Capacity building	1. Orientation 2. Refresher training
		All round development	1. Commitment 2. Talent
		Accustom to change	1. Transform as change agent 2. Uncertainty
		Motivation for development	1. Positive outlook 2. Proper understanding
		Attitude and philosophy	1. Transfer of learning 2. Holistic view
5.	Issues on Administration, Infrastructure and Learning resources	Improvised techniques	1. Modifying existing techniques 2. Evolving new techniques
		Focused intervention	1. Effectiveness 2. Operationalization
		Better logistics	1. Best use of available facility 2. Improving facility
		Virtual logistics	1. Nature of support 2. Extent of support
6.	Other Stakeholder Issues	Provides alternative	1. Better options 2. Fulfill expectations
		Enhanced demand	1. Customized courses 2. Trend setter

		Ready for job professional	1. Better performance 2. Well adjusted
		Creates reservoir of manpower	1. High human development index

Table 3 : Benefits of stage model.

Sl. No.	Issue	Factors affecting	Critical Constituent Elements
1.	Organizational Issues	Creating innovators	1. Critical thinking 2. Decision making
		Sustained growth	1. Long term perspective 2. Standard polices and procedures
		Learning outcomes	1. Skill development 2. Academic enrichment
		Enhanced enrollment	1. Diverse student force 2. Economies of scale
		Competitive advantage	1. Superiority of products 2. Excellence.
		Team work	1. Collaboration 2. Synergy
2.	Academic Issues	Adaptive	1. Catering to diversity 2. Range of options
		Right mindset	1. Proper orientation 2. Appropriate interventions
		Develop preparedness for change	1. Communication 2. Involvement
		Industry readiness	1. Industry interface 2. Employer acceptability
3.	Student Issues	Employability skills and entrepreneurial skill development	1. Package of skills 2. Mode of acquisition
		Open up avenues to participate	1. Increased participation 2. Fixing roles of leadership
		Readiness to absorb	1. Curiosity 2. Studiosness
		Creates potential for career choice	1. Industry readiness 2. Make informed choices
4.	Faculty Issues	Initiate change in students	1. Induce new thinking 2. Encourage risk taking behavior
		Skill acquisition	1. Create positive environment 2. Encourage continuous learning
		Build quality	1. Quality consciousness 2. Quality concern
		Visible change	1. Accept change

			2. Nurture change
		Consistency	1. Follow standards 2. Meet deadlines
		Collective Learning	1. Learn through sharing 2. Improved people relationship
5.	Issues on Administration, Infrastructure And Learning resources Issues	Innovative methods	1. New creating ideas
		Greater application	1. Student friendly 2. Customized resources
		Congenial for learning	1. Better maintenance 2. Better utilization
		Supportive to growth	1. Improved services 2. Enhanced services
6	Other Stakeholder Issues	Challenging and satisfactory	1. Promising career 2. Promising growth
		Brand building	1. Progress 2. Adapt to changing requirements
		Saves cost on training	1. Employability skills rendered 2. Value addition courses
		Fill existing and future requirement	1. Identify requirement 2. Cater to the requirement

Table 4 : Constraints of stage model.

Sl. No.	Issue	Factors affecting	Critical Constituent Elements
1.	Organizational Issues	Difficult to implement	1. Clarifying goals and objectives 2. Not easy to share vision
		No example to follow	1. First mover disadvantage 2. Cautious of Risk
		Practical exposure	1. Insufficient training 2. Lack of experience
		Balancing needs	1. Counter pressers 2. Supplement requirements
		Expertise	1. Need to hire 2. Need to build
		Collaboration	1. Differences in perception 2. Individual differences.
2.	Academic Issues	Different teaching styles	1. Modify variations 2. Focus on talent
		Short of creative potential	1. Right kind of people 2. Conducive organizational climate
		Addressing needs	1. Identify the needs 2. Pedagogy suited to need
		Stagnation	1. Make learning a pleasure 2. Encourage change

3.	Student Issues	Exploring hidden talent	1. Freedom to express 2. Encourage creativity
		Short span of time	1. Plan the task 2. Prepare readiness
		Need to simplify	1. Newer methods 2. Dovetailing
		Pro-active learning	1. Encouragement to learners 2. Need fulfillment
4.	Faculty Issues	Teacher learner incompatibility	1. Improved relations 2. Promote mentoring
		Low profile	1. Retention of capable faculty 2. Performance retention
		Scarcity of opportunity	1. More programs 2. More activities
		Inadequate resources	1. Organizational culture 2. Sustainability
		Subjectivity	1. Ensuring transparency 2. Encouraging feedback
		Choice of approach	1. Positive 2. Pro-active
5.	Issues on Administration Infrastructure, and Learning Resources Issues	Limited resources	1. Capacity building 2. Outsourcing
		Lack of requisite skill	1. Skill acquisition 2. Skill promotion
		Fixed and static	1. More immovable assets 2. User friendly facilities
		Tendency to dump blame	1. Fixing responsibility 2. Make authenticity
6.	Other Stakeholder Issues	Reach	1. Bridging distance 2. Compensating time
		Well oriented faculty	1. Continuous learning 2. Positive attitude
		Grow with time	1. Dynamism 2. Competency
		Limited sources	1. More demand 2. Less supply

Table 5 : Disadvantages of stage model.

Sl. No.	Issue	Factors affecting	Critical Constituent Elements
1.	Organizational Issues	Varying expectations	1. Share vision 2. Integrate unity of goal
		Difficult to implement	1. Open communication 2. Involvement of all
		Prime mover	1. Initiative

			2. Setting example
		Require continuous improvement	1. Positive environment 2. Commitment
		Time and cost	1. Follow deadlines 2. Use of cost effective technologies
		Weak leaders	1. Choice of person 2. Proven experience
2.	Academic Issues	Differing learning patterns	1. Variety of methods 2. Novelty of methods
		Reduced interest	1. Increase receptiveness 2. Right prioritization
		Assessing needs	1. Improved techniques 2. Proper judgment
		Urge to develop	1. Recognition and rewards 2. Examples
3.	Student Issues	Require more time to spend	1. Optimization 2. Efficiency
		More dedication and work pressure	1. Visible results 2. Stress reduction
		Slow learners	1. Remedial courses 2. Counselling
		Additional effort	1. Develop preparedness 2. To create interest
4.	Faculty Issues	Continuous improvement	1. Reward and Recognition 2. Training and retraining
		Weak background	1. Attract right talent 2. Interaction and exposure
		Retaining interest	1. Motivation 2. Faculty engagement
		Positive mindset	1. Encourage teamwork 2. Knowledge sharing
		Redefining criteria of efficiency	1. Communicate standards 2. Monitor standards
		Inability to combat multiple Task	1. Orientation 2. Simplified task
5.	Issues on Administration, Infrastructure and Learning Resources Issues	Greater dependence	1. Cost effective methods 2. Avoid being high-tech
		Individual differences among students	1. Accept differences 2. Promote growth
		Necessitates adjustment	1. Develop Pro-activeness 2. Avoid Undue expectations
		High end expectations	1. Realistic expectation 2. Use of technology
6.	Other	Other options unattractive	1. Capitalize situation

Stakeholder Issues		2. Secure competitiveness
	Demands continuous improvement	1. Long term orientation 2. Maintaining efficiency
	Less jobs to offer	1. More opportunities 2. Developed economy
	Increased expectation	1. Maintain expectation 2. Realize expectation

V. Conclusion

We have used the ABCD analysis framework for higher education stage model. The analysis consists of identifying various *determinant issues* and deciding *key issues* under each *determinant issue*. A list of *factors affecting* under each *key issue* using the constructs *ABCD* are worked out. Further constituent critical elements are identified for each affecting factor under the construct *ABCD*. It is found that the factors supporting advantages and benefits are more effective compared to constraints and disadvantages of this framework of analysis. So also this analysis provides a set of critical constituent elements which are critical to the success of overcoming the constraints and disadvantages. Higher education stage model may become more popular from the perspective of the students and other stake holders related to the organization. The model supports that student progression and development could be enhanced through stage model intervention technique.

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