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ACADEMIC EXCELLENCE THROUGH QUALITY AWARD MODEL FRAMEWORK: A CASE STUDY OF UPTU

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ABSTRACT

This paper presents the experience of strategic intervention to improve the quality of technical education in the UPTU affiliated institutions using the UPTU Academic Excellence Award Model framework which focuses on the holistic approach to quality. The model based on 5 enablers and 5 results parameters combines the self-assessment quality award criteria and benchmarking strategies to identify institutions for their excellence or potential excellence. The model was implemented for 2007 with eminent jury and assessment teams. The process, outcome and key learning points are outlined with scope for further refinement of the model and process for the next year. The perceived benefits and impact of the model and the experience gained from the case study are listed. Application of the model structure for dynamic accreditation provides the flexibility in the quality improvement process. The award winners as well as star performers provide a basis of additional flexibility in the academic management by granting graded academic autonomy to such institutions.

Introduction

In past twenty years or so, we have witnessed a tremendous growth in the number and size of technical institutions in the country mainly in the private sector. While it is a welcome sign that private equity participation has increased in what was once essentially perceived as a social sector, but its main impact would be felt only if the quality of these graduates and their 'employability' were very high. Unfortunately, in this 'rapid' quantitative expansion, quality did not remain as the main concern and 'acute' faculty shortage of right calibre, commitment and sincerity became a major crisis in running the institutions along the quality lines. Table 1 gives an overview of this quantitative growth.

Table 1: Growth of Colleges/Institutions and enrolment in UPTU

Year	Number of Colleges	Number of students enrolled
2000	58	15,000
2001	119	31,000
2002	140	46,200
2003	146	57,000
2004	172	90,000
2005	208	1,00,000
2006	238	1,50,000
2007	286	1,75,000
2008	350 (expected)	2,00,000 (expected)

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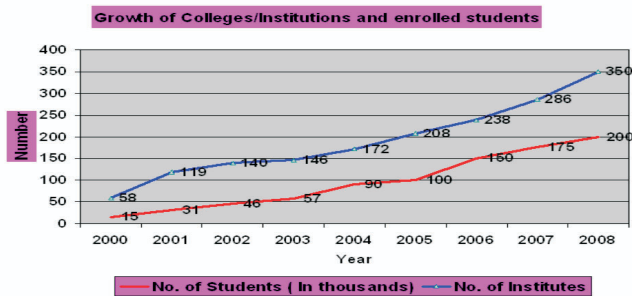


Figure 1

PERFORMANCE OF COLLEGES ON THE BASIS OF PERCENTAGE STUDENTS GRADUATING IN B.TECH IN MINIMUM TIME OF FOUR YEARS (B-TECH 4TH YEAR EIGHT SEMESTER 2006-07)

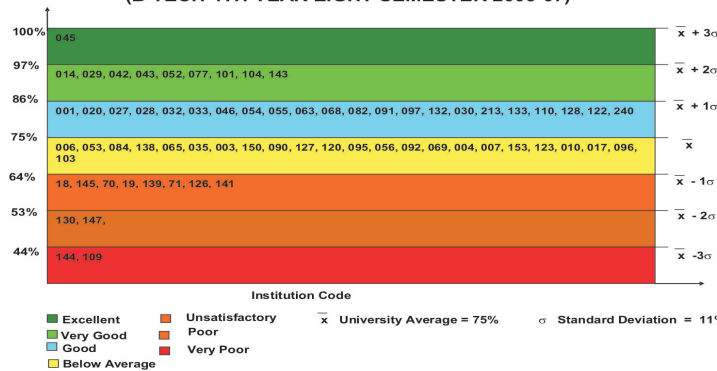


Figure 2

As can be seen from this, some major imbalances have resulted in this process of rapid expansion. Some of these are:

- Regional imbalance in the location of technical institutions. There are heavy clusters in some part of the country and very low else where. Even within the state there are variations e.g. among UPTU affiliated institutions nearly 50% are located in 3 districts while nearly 50% districts have no colleges.
- Branch-wise imbalance with almost 70% new seats created are confined to nearly 20% of the branches of engineering-that too in a very narrow band of fields which are essentially variants of computers & IT, while the core engineering subjects, vital for national development; such as Civil, Architecture, Agricultural Engg., Metallurgy, Chemical, Mechanical, Paper & pulp, Leather and sugar technology, are hardly perceived with enthusiasm in creating the additional capacity.
- Imbalance between degree and diploma institutions. There is more focus on degree enrolment than in diploma leading to shortages and surpluses of skill-sets needed at various levels in organizations.
- Public-Private participation imbalance-Nearly 95% of the expansion in the technical education is in the private sector with public funded institutions in various states showing hardly any sign of growth. Faculty adequacy and facilities in many of the state funded institutions is a cause for serious concern. The main success factor for them is still the higher calibre students they are able to attract due to lower fees and perceived public confidence.

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- Compensation package imbalance between industry and academic in which industry pays in the beginning a package that an academic gets at the end of his/her entire service life. This has seriously eroded the 'attractiveness' of teaching and research in engineering & technology as a sought-after career option and there is a 'famine' like condition of talent for teaching and research. This is the biggest single cause for concern. Even in the same privately funded institution, there is tremendous imbalance in pay structure of 'Director/Principal' and the fresh lecturer.
- Age-structure imbalance – we come across faculty which is either 20 plus or 60 plus-re-employed retired professors from reputed govt. colleges/institutions and a balanced age profile with strong middle faculty cadre is missing.
- Imbalance in value orientation with short-term goals taking precedence over long term one. Quick return on capital employed leads to myopic perception in decision making. Thus there is an imbalance in favour of quantity over quality.

Seen holistically, any imbalance in a system is a sign of malfunctioning of the system. Thus quality is a serious concern in technical education and low employability (25-30%) of technical graduates is a major threat. This paper addresses to this problem and presents an experience of one such strategic quality enhancement intervention in the context of U.P. Technical University. This experiment can be easily replicated anywhere in the higher technical education system with a bit of flexibility in its implementation contingent upon the situational variables.

The Motivation for Quality Enhancement

Emergence of Knowledge Society and the Indian Potential

In the current global scenario, with the emergence of knowledge society when the world is shrinking to be a global village and geography is increasingly becoming a history, India can be the most dominant knowledge super-power because of its tremendous intellectual potential by virtue of its superiority. I believe, future of India is a new form of IT-'Indian Talent' irrespective of whichever branch of engineering and technology, because in future there is going to be a great demand for all kinds of technical talent. Thus it is a critical moment for us to take lead in becoming a major player in the emerging knowledge society. Quality is the key to that success. However, quality today is the major constraint due to 'low immediate employability' of our graduates as perceived in various surveys. If we miss this opportunity again, it would be sad. Hence we need to balance quality with quantity, short term goals with long-term goals to ensure that we use our inherent capabilities to be the knowledge super power for the following intrinsic strengths that we have :

- We are the largest democratic country with more than 65% of our population being less than 35 years of age. As a youthful nation, if we produce technical manpower of quality, which is globally employable, India could be a major talent pool for the world in 'addition to meeting its own developmental needs.
- By nature, we are very innovative, creative, analytic, curious and 'intelligent human resource'. We can find very innovative solutions to complex problems provided we find a purpose in it. If motivated and committed, we can be truly innovative and creative. This is a major asset in promoting innovative research and development.
- India had a glorious past as knowledge seekers from the world were attracted towards India-Nalanda is a case in point. We need to regain that past glory and if given right priorities to E-R-P (Education, Research & Planning) which requires intellectual capital as a resource input, we could become a major knowledge hub and R&D centre globally.

All this is possible if we achieve academic excellence and train globally employable talent in Indian technical and management institutions.

Strategies for Quality Enhancement in Technical Education in UPTU

The Uttar Pradesh Technical University (UPTU) setup in May 2000; is one of the largest in terms of the students enrolments in the country. Starting with 58 affiliated colleges/institutions in the year 2000 AD; it now has 286 affiliated institutions and nearly 1,75,000 students enrolled in 36 different branches of engineering at B.Tech level; B.Arch; M.Tech; B.Pharm; M.Pharm; MBA; MCA; BHMCT and Ph.D programs. Some 100 new institutions are in the pipeline of AICTE for considering these to be approved for starting their operations under UPTU from July 2008. This will add further to an already a large number enrolled under UPTU system. Fig. 1 gives the growth curve of UPTU during past 7-8 years.

The quantitative growth has been almost exponential. Hence, the need to make concerted efforts to improve quality of education is perceived as the topmost priority. The university has initiated some strategic steps to enhance the quality standards to take to the path of academic excellence. Some of these are:-

1. Improving the quality of intake by increasing the minimum cut-off marks in the SEE (entrance examination) as well as minimum eligibility criteria for direct admissions. This would ensure a minimum academic level in a worst case scenario which is 'good enough' to be effectively trained.
2. Report on the website, extensive statistical analysis using the performance spectrum control chart and ranking of institutions based on holistic index of average intellectual attainment per student and other quality indicators. This will bring transparency, healthy sense of competition and public accountability. (Figure 2)
3. Restructuring of the question paper with added flexibility due to mix of objective, conceptual and creative design/problem solving to focus on holistic understanding rather than on rote learning.
4. Rationalization of the institutional assessment process and the university assessment in theory, while providing flexibility to the institution with the guidelines to aim at the I/U ratio (institution sessional marks to university theory examination marks both in % terms) to vary between 1.3 to 1.7. To be frozen at the outer limits in case of non-normal variation, beyond these limits. It will reduce the 'noise' component in the assessment process.
5. Creating greater web-enabled transparency on the academic performance of various institutions affiliated to UPTU by ranking them on various attributes.
6. Initiated the U.P. Technical University Academic Excellence Award to generate a healthy sense of competition among affiliated institutions and to perceive quality in the holistic sense. This would enable the institutions to benchmark with the best in the class, introspect through the model structure to know its current status through self-assessment. The innovative and dynamic processes through the designed model can be flexibly used to reward the outstanding performers; use it in graded promotion to higher stage of autonomy, emulate best practices of star performers and use it for nurturing the weak institutions through mentoring and handholding by stars in its neighbourhood. This flexibility in the potential uses of the model makes it very useful. The subsequent sections of this paper describe the model and its implementation process in details and the lessons learnt in the process of implementation.

Accreditation as a Tool for Quality Assurance

Conventional approach to quality assurance of the academic institutions is done through the process of accreditation and ISO certification. While ISO certification may give an idea of the Quality Management Systems (QMS) established by the institution; the accreditation provides an idea of the degree of maturity an institution has achieved in its journey of academic excellence. In India the NAAC under UGC; NBA under AICTE and Quality Council of India help in the accreditation and enhancement of quality. QCI is authorized to give accreditation for ISO certification. The accreditation process is based on self-assessment and peer reviews.

In the U.S., the concept of accreditation started in 1950's to qualify institutions and programmes for federal grants and loans. It has evolved there over the years in response to changes in the higher education environment. The number and diversity of accrediting organizations has grown and over 100 accreditation organizations exist.

Thus accreditation of Indian higher education system is still in its nascent stage. The % coverage of accredited institutions and programmes by NAAC and NBA are very small fraction of total number of such institutions and programmes. NAAC accredits institutions while NBA accredits programmes. There is perhaps a need to have a combination of the two alternatives.

In the context of Washington Accord to which now India is provisionally in, the need, role and the process of accreditation needs to be re-emphasized and revisited. While it is an opportunity to showcase Indian Talent's quality to the outside world, it is a major challenge because the credibility of the accreditation process itself needs to be established.

Major Challenges in Accreditation

1. Lack of emphasis on accreditation, particularly by private institutions.
2. Non-availability of right kind of resource persons for participating in the process of accreditation.
3. Local pressure groups within the teams-heterogeneous perceptions within the group
4. Credibility of information supplied to the visiting team.
5. Halo effect-for example a good hospitality may possibly colour the view of the team, or vice-versa.
6. Psychological pressures on the visiting team. Since decisions have to be finished right on the spot and strengths and weaknesses to be enumerated, either due to leakage of internal information by any team member or the body language of team members, the team may be under enormous pressure for an honourable exit from the place, in case the accreditation is not recommended.
7. Lack of perceived outcomes of the accreditation. There is very little evidence that after accreditation the quality perceptions or funding or enrolment quality has substantially gone up. In-fact many a times, it is used as a tool to further increase intake which erodes quality than increase it.
8. Credibility of results in public perception; even drastic changes in rating scale (e.g. of NAAC) reflect that a credible system is yet to evolve.
9. Delays in the process of accreditation.
10. Conflicting ratings by magazines and the other accreditation agencies.

National Quality Award Model: An Alternative Route to Promote Accreditation

As an alternative route to promote accreditation, one can explore adopting the National

Quality Award model framework-suitably adapted to fit into the academic environment. The same structure could be used for programmes as well as institutions by appropriate interpretations of model structure to suit the level at which it is applied. With this the programmes as well as institutions could be accredited. Benchmarking with the best in the class is also possible. The model framework provides flexibility in its use at the level of a program, deptt. or the institute. This is a direct derivative of the flexibility inherent in a systems approach.

UPTU Academic Excellence Model: A Case

The rapid growth of Technical Education sector in U.P. state during the last eleven years, both in terms of number of institutions and intake capacity was perhaps necessary to retain inter-state migration of our students; but in the process some compromise was made with the quality of education. It is therefore necessary to consolidate and ensure quality education, so as to provide world-class technical manpower and to usher in technology-driven economic development in the state. It is time to generate healthy competition among these institutions and provide incentive for performance in Academic Excellence and Human Resource development. As such, UP Technical University has established **UPTU Academic Excellence Award (UPTU-AEA)** from the year 2007 with a view to reward Excellence in academic achievements. The same model can be used for the purpose of accreditation as well. It combines the concept of self-assessment, benchmarking and total quality management. Thus it facilitates a system’s approach to quality.

Academic Excellence Award Model: Structure and Process

The Academic Excellence Model is a non-prescriptive framework based on ten criteria. Five of these criteria are ‘Enablers’ and remaining five are ‘Results’. The ‘Enabler’ criteria cover what an institution does. The ‘Results’ criteria cover what an institution achieves. ‘Enablers’ cause ‘Results’. The unique feature of the model is that it converts perceptions into numbers automatically using 5-point likert scale.

The Model recognizes that there are many approaches to achieving sustainable excellence in all aspects of performance, and is based on the premise that:

Excellent results with respect to Performance, Customers, People and Society are achieved through Leadership driving Policy & Strategy, People, Partnerships & Resources, and Processes.

The Excellence Model is presented in a diagrammatic form in Fig. 3 :

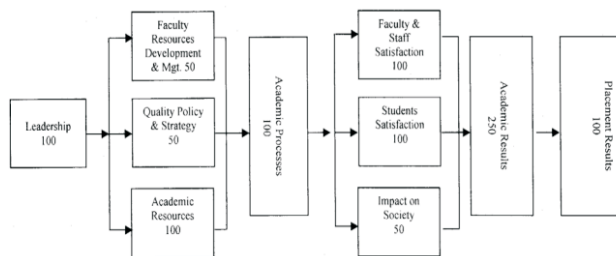


Figure 3

The model is dynamic in nature. The innovative strategies and processes together with continuous learning helps to improve enablers that in turn lead to improved results. The Model’s ten boxes, shown in Fig. 3, represent the criteria against which an institution’s progress towards excellence is to be assessed. Each of the ten criteria has a definition, which explains the high

level meaning of that criterion. To develop the high level meaning further each criterion is supported by a number of sub-criteria. Sub-criteria pose a number of questions that should be considered in the course of an assessment using a 5 point Likert scale. This is innovative aspect which automatically converts perceptions into numbers. The structure helps in reducing avoidable errors of judgment in converting perception into numbers. For instance if a criterion has 50 points; then it has 10 sub-criteria each being assessed on a 5- point scale (from High to Low). The collective perception on each sub-criterion when summed up gives a total score out of 50.

The Process for Implementation

1. Put the UPTU Academic Excellence Award model on website.
2. Arrange training workshops at 4-5 zones within UPTU domain to sensitize institutions and colleges about the model and the role it can play as quality implementation roadmap by combining self-assessment, peer-assessment and benchmarking quality strategies.
3. Publicize the model extensively and prepare a self-contained brochure.
4. Invite proposals from aspiring institutions / colleges both from Govt. / private colleges in all areas of technical education; by a certain cut - off date.
5. Appoint a panel of eminent jury headed by an outstanding academician having experts in quality management from academics, industry and other NGO's. Jury should have at least five members including chairperson.
6. The panel analyses the self - assessment report of each aspiring institution and decides on a cut - off score based on self - assessment report to site visit the organizations short-listed.
7. A five member team of assessors having reputation, experience in quality management from academics, industry and consulting / NGO's to be appointed for site visit.
8. The team of assessors visits each of these institutions short-listed for a 3-day period. Interacts with all stake holders, discusses with top management, faculty and staff, students, alumni, some citizens around the location, peruses through databases, documents, results, and based on total aspects during site-visit, performs the following-
 - i. Arrives at a consensus score among the members of the team on each of the 10 factors and total score.
 - ii. Identifies Strengths and Areas for Improvement on each of these 10 factors and on overall basis. This will be passed on to each of the site visited institutions to help them to develop and enhance their quality score in future. This will be one of the most important contributions since an objective, professional consultation guidance is available from top experts on quality management as a bonus helping them to improve.
 - iii. Team of assessors submits their reports on each of site - visited institutions and presents a comparative table of self - assessment scores and consensus scores after site - visit on each factor as well as total score.
 - iv. Team leader(s) presents major findings of the team for each site- visited institution through power point presentation before the jury on each factor identifying strengths and areas for improvements as well as scores. They respond to any queries from the members of the jury and then withdraw from the meeting of jury.
 - v. Jury deliberates on presentations made and firms up its opinion on the awards to be recommended to the vice-chancellor.

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- vi. The Vice -Chancellor finalizes the awards after receiving the recommendations of the jury.
- vii. Results are announced through web, electronic and print media.
- viii. An award ceremony held with a renowned dignitary as Chief-Guest and Awards given.
- ix. Awardees can publicize their recognition through press release, magazines, articles and mentioning it on their letter-heads and stationary.
- x. Awardee's will have the obligation to share their best practices with others by organizing lectures and seminars throughout the state of U.P. and help nurture other weak institutions in their zone to improve their performance in the spirit of 'hand holding', and mentoring. This will be done for one year after the Award. For next year, the job will be taken over by the next year's Awardees.
- xi. If score is less than 750 points out of 1000 no award will be given but a Certificate of Merit can be considered for score more than 700.
- xii. The number of Awards will be as follows-
 - a. One overall Academic Excellence Trophy - a rotating shield to be passed on to next years winner leaving a replica of the same with the current winner. This will be earmarked for B. Tech. or composite colleges as these cover larger proportion of UPTU students.
 - b. Three Awards for best B. Tech. Colleges.
 - c. One Award for best of B.Arch./B Pharma/B.H.M.C.T. colleges.
 - d. One Award for best M.B.A. College.
 - f. One Award for best M.C.A. College.
- xiii. Award will comprise of a plaque and citation.
- xiv. All those institutions! colleges which score more than 700 points out of 1000 will be offered the membership of 'Star Performer's Circle' with whom the university will be extensively interacting to help improve quality of U.P.T.U. affiliated institutions. Certain privileges may be granted to such star performers.

Self-Assessment will be made out of 1000 points as per following distribution:

A. **Enablers:** 400 points allocated as follows:

- | | |
|---|--------------|
| 1. Top Management's commitment to Quality & Academic Leadership | : 100 points |
| 2. Faculty Resources Development & Management | : 50 points |
| 3. Quality Policy & Strategy | : 50 points |
| 4. Academic Resources | : 100 points |
| 5. Academic Processes | : 100 points |

B. **Results:** 600 points allocated as follows:

- | | |
|---------------------------------|--------------|
| 6. Faculty & Staff satisfaction | : 100 points |
| 7. Students satisfaction | : 100 points |
| 8. Impact on Society | : 50 points |
| 9. Academic Results | : 250 points |
| 10. Placement Results | : 100 points |

Experience Gained in First Year of its Implementation

The UPTU Academic Excellence Award Model-2007 was implemented on a voluntary participation basis after extensive sensitization workshops in various zones of UPTU. Within due date 38 institutions sent their self-assessment forms as per the award model structure. A 6-member Jury headed by Prof. D. Acharya, Director, IIT Kharagapur met to shortlist applicants on the basis of their self-assessment scores. **Table 2** gives a listing of 38 applicants and their self-assessment scores as per model structure. The Jury felt that self-assessment scores were inflated and therefore used only the academic results information (item 9 of the model) for site visits. Out of 10 institutes chosen for site visit, one withdrew for lack of preparation. Three teams of experts visited each of these 9 institutions and after extensive interactions with various stake holders, submitted the consensus score of the team. The Jury met again when leader of each team made a presentation and examined the scores to identify the award winners if any. The following recommendations were made by the Jury:-

1. There was no institution which could score 750 and above. Hence, no award was recommended for overall excellence. This validates the quality perception.
2. 3 institutions crossed 700 mark threshold to become members of **“Star Performers Circle”**.
3. Jury recommended an appreciation letter to two institutions scoring more than 650 but less than 700 points.

Table 2: Self-assessment score of Candidate Institutions

S.No	Name of Institutions	Courses	Maximum Marks	Self-Assessment Score
1	Galgotia's College of Engg. & Tech, Greater Noida	B.Tech	1000	925
2	IMS Engineering College, Ghaziabad	B.Tech	1000	915
3	Indian Institution of Carpet Technology, Bhadohi	B.Tech	1000	898
4	Babu Banarasi Dass National Institute of Tech. & Mgt. Lucknow	B.Tech	1000	871
5	Invertis Institute of Engg. & Tech, Bareilly	B.Tech	1000	845
6	Academy of Business & Eng. Sciences, Ghaziabad	B.Tech	1000	839
7	GLA Institute of Technology and Management, Mathura	B.Tech, MBA	1000	823
8	Krishna Institute of Engineering & Technology, Ghaziabad	MCA	1000	797
9	B.B.S. College of Engg. & Tech, Allahabad	B.Tech	1000	788
10	Ajay Kumar Garg Engg. College, Ghaziabad	B.Tech	1000	779
11	Indraprastha Engineering College, Ghaziabad	B.Tech	1000	763
12	Kamla Nehru Institute of Technology, Sultanpur	B.Tech	1000	749
13	Krishna Engineering College, Ghaziabad	B.Tech	1000	695
14	Shri Ganpati Institute of Technology, Ghaziabad	B.Tech	1000	649
15	College of Science & Engg., Jhansi	B.Tech	1000	630
16	Sri Ramswaroop Memorial College of Engg. & Mgt., Lucknow	B.Tech	1000	539*
17	Anand Engineering College, Agra	B.Tech	1000	N.A.**
18	IIMT Engineering College, Meerut	B.Tech	1000	N.A.**
19	Babu Banarasi Dass National Institute of Tech. & Mgt. Lucknow	B.Tech	1000	972
20	Babu Banarasi Dass National Institute of Tech. & Mgt. Lucknow	BHMCT	1000	936
21	Rameesh Institute of Vocational and Technical Education, Gr. Noida	B.Arch	1000	929
22	Babu Banarasi Dass National Institute of Tech. & Mgt. Lucknow	B.Pharm	1000	891
23	KIET Scholl of Pharmacy, Ghaziabad	B. Pharm	1000	807
24	Acharya Narendra Deo College of Pharmacy, Gonda	B. Pharm	1000	744
25	Hygia Institute of Pharmaceutical Education & Research, Lucknow	B. Pharm	1000	649
26	Innovative College of Pharmacy, Greater Noida	B.Pharm	1000	578
27	IIMT Management College, Meerut	B.Pharm	1000	992
28	Invertis Institute of Mgt. Studies, Bareilly	MBA	1000	950
29	Babu Banarasi Dass National Institute of Tech. & Mgt. Lucknow	MBA	1000	896
30	Sahara Arts & Management Academy, Lucknow	MBA	1000	871
31	Sri Ramswaroop Memorial College of Engg. & Mgt., Lucknow	MBA, MCA	1000	540*

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32	Babu Banarasi Dass National Institute of Tech. & Mgt. Lucknow	MBA	1000	900
33	Sri Ramswaroop Memorial College of Engg. & Mgt., Lucknow	MCA	1000	539
34	Babu Banarasi Dass National Institute of Tech. & Mgt. Lucknow	Over All Institute	1000	886
35	H.R. Institute of Technology, Ghaziabad	B.Tech, MBA	1000	914
36	Meerut Institute of Engineering & Tech., Meerut	B.Tech, MBA	1000	526*
37	Meerut Institute of Engineering & Tech., Meerut	B.Pharm	1000	575
38	Galgotia's Institute of Management & Tech., Greater Noida	M.Pharm	1000	911

* Self-assessment score were incomplete.

** N.A. = Not Available

Table 3: Modified Score approved by the Jury of Academic Excellence Award 2007

S.No.	NAME OF INSTITUTION	Max. Marks	Self Assessment Score	Team Assessment Score	Modified Score approved by the Jury
B.Tech					
1	Krishna Institute Of Engg. & Technology, Ghaziabad	1000	797	696.7	722
2	Indian Institute Of Carpet Technology, Bhadohi	1000	898	680	705
3	Ajay Kumar Garg Engg. College, Ghaziabad	1000	779	646	672
4	G.L.A. Institute Of Tech. & Management, Mathura	1000	823	614	639
5	Kamla Nehru Institute Of Technology, Sultanpur	1000	749	595	620
6	Sri Ram Swaroop Memorial College Of Engg. & Management, Lucknow	1000	539*	588	613
7	Babu Banarasi Das National Institute Of Tech. & Management, Lucknow	1000	871	585	610
8	Galgotia's College Of Engg. & Technology, Greater Noida	1000	925	572	610
9	I.M.S. Engineering College, Ghaziabad	1000	915	Not visited	---
B.Pharm					
10	Ram Eesh Institute Of Vocational And Tech. Education, Gr.Noida	1000	929	714	705
11	Babu Banarasi Das National Institute Of Tech. & Management, Lucknow	1000	891	630	665
MCA					
12	G.L.A. Institute Of Tech. & Management, Mathura	1000	823	598	623
13	Babu Banarasi Das National Institute Of Tech. & Management, Lucknow	1000	900	585	610
14	Sri Ram Swaroop Memorial College Of Engg. & Management, Lucknow	1000	539*	572	592
MBA					
15	G.L.A. Institute Of Tech. & Management, Mathura	1000	823	608	624
16	Babu Banarasi Das National Institute Of Tech. & Management, Lucknow	1000	896	590	615
17	Sri Ram Swaroop Memorial College Of Engg. & Management, Lucknow	1000	540*	554	579

* Scores were incomplete.

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The Star Performers membership was accorded in a Ceremony and awardees honoured by the Chancellor and the Minister in charge of Technical Education to bring visibility to the award model. The entire exercise received wider acclaim and application as an effective quality enhancement strategy.

Lessons Learnt

In the process of implementation, some of the lessons learnt are:

- (i) Item 9 needs to be modified as the model structure was underestimating academic performance. This was modified to $2.5(10+x)$ where x is 'Av. Gross Intellectual attainment/student instead of $2.5x$ as originally conceptualized.
- (ii) 3-days site-visit is too long for experts to devote in each institute. It needs to be compressed to at best 2 days.
- (iii) Response was not very high. Perhaps it needs to be made mandatory to provide self-assessment scores in the model format by each institution every year as a part of voluntary disclosures to the University. Out of these, those having a potential can be considered as participants to the award process.
- (iv) There are enormous size variations in the colleges in terms of its enrolments. For instance, under B.Tech colleges there are colleges having 8-10 branches of engineering and around 3-4 thousand enrolment on one extreme and a single B.Tech program with an intake of 60 each year. Perhaps categorizing 3 best B.Tech colleges into Large, Medium and small category would be desirable with overall trophy for only the large B.Tech/composite college.
- (v) There was no participation fee as the University wanted to avoid barriers to entry. Perhaps this was not a valid assumption and an entry fee might give a perceived value to the process.

Flexibility in Model Application

The model structure is based on systems approach to quality and hence inherently flexible in terms of its applications. It could be used for awards, for accreditations, for granting autonomous status to a college. It can be used at the level of a college as a whole or for a department of a college or for a programme of a college by appropriately defining the system boundaries and interpreting the various attributes/criteria within the system boundaries so defined. It could be used for benchmarking, introspection (instead of inspection) to evolve a road map for quality. Hence the approach is a very flexible instrument in pursuit of excellence.

Concluding Remarks

Accreditation in higher education as a quality enhancement strategy needs to be nurtured as it is in its nascent stage. May be a combination of incentives for going for it and disincentives for not doing so, removing barriers to entry, enhancing credibility of the process and linking outcomes and awards with quality needs to be pursued with greater vigour. Benchmarking with the best in the class adopting their best practices and using accreditation process to outline roadmap for quality enhancement needs to be adopted. UPTU Academic Excellence Award Model framework is a flexible instrument for nurturing academic quality in a variety of ways and has been very well received.

Acknowledgment

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