

ACADEMIC PERFORMANCE INDICATORS AND THE QUALITY OF RESEARCH IN HIGHER EDUCATION INSTITUTIONS IN INDIA: A STUDY OF UNIVERSITY TEACHERS' OPINIONS

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ABSTRACT

This study is aimed at understanding the opinions of university teachers about the role of academic performance indicators (API) in promoting the quality research in higher education institutions in India. The study uses mixed methods approach that involves the collection of both quantitative and qualitative data. The sample of the study consists of 100 university teachers selected through purposive and convenience sampling techniques from three universities in Tamil Nadu. Closed-ended questionnaire and semi-structured interview schedule have been used to collect data from the teachers. The findings of the study suggest that most of the university teachers who participated in the study are sceptical of the role of API system in improving the quality of research in higher education. The opinions do not differ significantly with respect to any of the demographic variables (gender, type of university, subject background and teaching experience) selected for the study. The views of teachers who support the API system are premised on the idea that making API as a compulsory component for recruitment and promotion of teachers in higher education would promote a conducive mind set for research among the teachers. They further believe that it will gradually result in producing quality research. On the other hand, the teachers who are sceptical of the API system are of the understanding that measuring the quality of research in quantitative terms would be counter-productive and would make teachers more mechanical rather than genuinely interested on teaching and research.

KEY WORDS: *Academic Performance Indicators, University Teachers, Quality, Research, Higher Education*

1. INTRODUCTION

The quality of teaching-learning process in the higher education institutions depends upon various, complex and inter-related factors. It is widely accepted that the quality of teachers is one of the crucial aspects in improving the quality of teaching-learning process in higher education. The quality of teachers in turn depends upon various aspects such as the personal motivation, the type of institutions they work in and the process of teacher recruitment in higher education. The criteria for appointment of teachers in higher education intuitions has been changing time to time. In 1983, a committee constituted by the University Grants Commission (UGC) recommended that qualifying the national test conducted by UGC should be the minimum qualifications for the post of lecturers. This recommendation resulted in the introduction of National Eligibility Test (NET) as the minimum qualification for the recruitment of teachers in higher education. It was first conducted by UGC and CSIR in the year 1989. Though the candidates who have completed Ph.D. are exempted from qualifying NET, it continues to be the minimum qualification for the appointment of assistant professor in universities and colleges for the candidates who do not

have Ph.D. (Varghese et al, 2017). Apart from NET, periodic in-service training for teachers, orientation and refresher programmes have been recommended by various commissions and committees on higher education for the professional development of teachers in higher education.

During the late 2000s, in the wake of sixth pay commission, UGC came up with the major reform proposal that sought to revamp the process of promotion and recruitment of new teachers in higher education institutions. Improving the quality of research and teaching in higher education was one of the major concerns of this proposal. Subsequently, in the year 2010, UGC introduced a regulation titled “*UGC (Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education) Regulations, 2010*”. The main aspect of the regulation is Academic Performance Indicator (API) Score under Performance Based Appraisal System (PBAS). The API score is a score given to different activities that the teachers in universities and college regularly engage. It includes teaching, research, co-curricular and administrative activities (UGC, 2010).. The API score is applicable for the recruitment of new faculties and the promotion of faculties who are already in service under Career Advancement Scheme (CAS) (Das & Chattopadhyay, 2014). As many academicians pointed out, the API score attempts to measure the quality of the teachers in quantitative terms. Amidst the opposition from various quarters, the regulation was implemented in universities and colleges across the country. To accommodate the concerns of various stakeholders, the UGC regulation has been amended four times: in 2011, 2013, May, 2016 and July, 2016 respectively (Mann, 2017). The most recent update is the new regulation that was released in government gazette on July, 2018 (UGC, 2018). At present, the appointments and promotion of teachers in universities and colleges are governed by *UGC Regulations on Minimum Qualification for appointment of Teachers and Other Academic Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education 2018*. Parallely, in an attempt to regulate the research publications in peer-reviewed journals, the UGC decided to prescribe a list of ‘approved’ journals in January, 2017. Due to the frequent complaints and newspaper reports on the fake and predatory journals, the UGC’s Standing Committee on Notification on Journals have recommended the removal of over 4000 journals from the UGC approved list on 2nd May, 2018 (Mohanty, 2018). To streamline it further, UGC has set up the Consortium for Academic Research and Ethics (CARE) in January, 2019 for scrutinising and updating the list of UGC approved journals regularly. The UGC-CARE list of journals came into effect from 14th June 2019 (Express New Service, 2019). UGC believes that revising and updating the list of UGC approved journals on a regular interval would curb the publication in fake journals and promote the quality research. But, ever since its implementation, the API score and the prescribe journal list has been a subject of intense debate among the academicians. In this back drop, the present study aims to understand the opinions of university teachers about the role of API in promoting the quality of research in the higher education intuitions in India.

2. OBJECTIVES

The study focusses on the following objectives:

- To understand the opinions of university teachers about the role of Academic Performance Indicators (API) in promoting the quality of research in higher education in India
- To understand the difference in the opinions of university teachers about the role of Academic Performance Indicators (API) in promoting the quality of research in higher education in India with reference to gender, type of university management, subject background and experience.

3. METHODOLOGY

The present study uses mixed methods approach that focuses on collecting, analysing, and mixing both quantitative and qualitative data in a single study. It is premised on the belief that the use of use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems. Among the different research designs of mixed methods approach, the present study uses convergent-parallel mixed methods research design that involves the collection of quantitative and qualitative data around the same time.

3.1 INSTRUMENTS

In order to understand the perspectives of university teachers on the reforms concerning faculty recruitment in higher education in India, two research instruments have been used namely: closed ended questionnaire and semi-structured interview schedule. The closed-ended questionnaire used in the present study is a Likert-type rating scale which has five categories namely: strongly agree, moderately agree, neutral, moderately disagree and strongly disagree. The closed-ended questionnaire consists of six statements that are related to various aspects of API in higher education in India. The overall score for the statements in the questionnaire describe the opinion of the respondents as to what extent the API and performance based appraisal system in higher education promotes quality of teaching and research. The questionnaire was constructed and standardized by the researcher. The Cronbach's Alpha for the for the questionnaire was found to be 0.70. The face validity of the questionnaire was ascertained by the experts.

3.2 PARTICIPANTS

The participants for the study consist of 100 university teachers working in three universities in Tamil Nadu namely: University of Madras, Anna University and SRM Deemed University. The participants for descriptive survey were selected using quota sampling and the participants for semi-structured interview were selected through purposive sampling.

Table 1: Sample Profile

	Gender		Subject Background				Experience			
	Male	Female	Arts	Sciences	Engineering	Management	1-10 years	11-20 years	21-30 years	Above 30 years
Public	38	22	24	16	13	7	31	11	12	6
Private	27	13	16	6	7	11	27	7	4	2
Total	65	35	40	22	20	18	58	18	16	8
	100		100				100			

3.3 DATA ANALYSIS

Descriptive statistics such as mean, standard deviation and inferential statistics such as t-test, ANOVA have been used for analysis. The mean values obtained from the responses of university teachers for the closed-ended questionnaire have been categorized as 'Highly Favourable', 'Moderately Favourable' or 'Neutral' or 'Moderately Unfavourable' or 'Highly Unfavourable' using the mean ranges presented below.

Table 2: Interpretation of scores obtained through closed-ended questionnaire

Mean Range	Description
6 to 10.8	Highly Favorable
10.8 to 15.6	Moderately Favorable
15.6 to 20.4	Neutral
20.4 to 25.2	Moderately Unfavorable
25.2 to 30	Highly Unfavorable

Thematic analysis has been used in study to analyse the responses of university teachers collected through semi-structured interview.

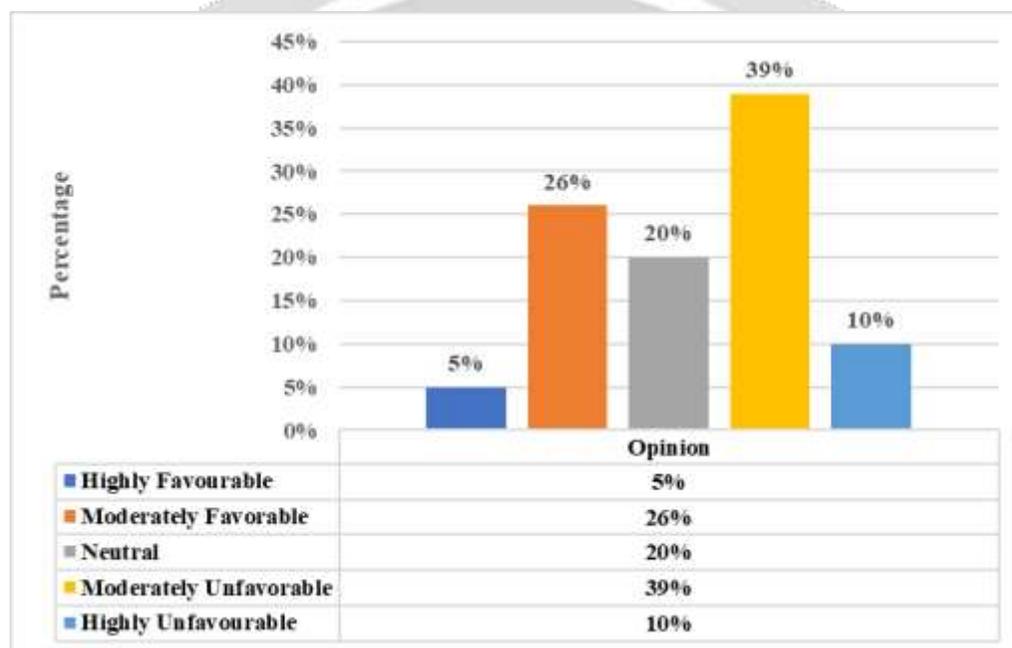
4. RESULTS

This section presents the analysis of university teachers' responses for the closed-ended questionnaire and the semi-structured interview schedule.

4.1 Overall opinion

Based on the mean values computed from the responses of teachers for the statements in the questionnaire, the overall opinion of university teachers as to what extent the API and performance based appraisal system in higher education promotes quality of teaching and research has been represented in the figure below.

Figure 1: Overall opinion of university teachers about the role API in promoting the quality research in higher education in India



The API score and the PBAS in higher education did not go well with most of the teachers as the table suggests that around half of the teachers (49%) are unfavourable towards the API in higher education. While 31% of the teachers have a favourable opinion towards API, 20% of the teachers maintain a neutral position towards the API in higher education.

4.2 Gender-wise Comparison

In order to know the difference in the opinions of university teachers about the role of API in promoting quality research in higher education in India with respect to their gender, the following alternative hypothesis has been formulated.

Alternative Hypothesis: The opinions of university teachers about the role of API in promoting quality research in higher education differ significantly with respect to their gender.

The above alternative hypothesis has been translated into null hypothesis for the purpose of testing.

Null Hypothesis: The opinions of university teachers about the role of API in promoting quality research in higher education do not differ significantly with respect to their gender.

Two tailed t-test has been used to test the null hypothesis. The results of the t-test have been presented in the table below.

Table 3: Gender-wise comparison of university teachers' opinion about the role of API in promoting quality research in higher education

Gender	N	Mean	Std Dev	t-value	p-value
Male	65	22.73	5.57	1.371	0.173
Female	35	21.12	5.65		

The figures in the table shows that the t-value (1.371) is not significant at 0.05 significance level ($p > 0.05$) Hence, the null hypothesis is accepted at 0.05 significance level. This indicates that the opinions of university teachers about the role of API in promoting quality research in higher education do not differ significantly in relation to their gender.

4.3 Type of University-wise Comparison

In order to study the difference in the opinions of university teachers about the role of API in promoting quality research in higher education in India with respect to the type of university management, the following alternative hypothesis has been formulated.

Alternative Hypothesis: The opinions of university teachers towards the reforms about the role of API in promoting quality research in higher education differ significantly with respect to the type of university management.

For the purpose of testing, the above alternative hypothesis has been translated into null hypothesis.

Null Hypothesis: The opinions of university teachers about the role of API in promoting quality research in higher education do not differ significantly with respect to the type of university management.

Two-tailed t-test has been used to test the null hypothesis. The results of the t-tailed test are presented below.

Table 4: Type of university management-wise comparison of university teachers' opinion about the role of API in promoting quality research in higher education

Type of University	N	Mean	Std Dev	t-value	p-value
Public	60	22.14	5.67	0.460	0.646
Private	40	21.63	5.04		

The figures in the table clearly indicate that the t-value (0.460) is not significant at 0.05 significance level ($p > 0.05$). Hence, the null hypothesis is accepted at 0.05 significance level. This means that the opinions of university teachers about the role of API in promoting quality research in higher education do not differ significantly with respect to the type of university management.

4.4 Subject-wise Comparison

In order to examine the difference in the opinions of university teachers about the role of API in promoting quality research in higher education in India with respect to their subject backgrounds, the following alternative hypothesis has been formulated.

Alternative Hypothesis: The opinions of university teachers about the role of API in promoting quality research in higher education differ significantly with respect to their subject backgrounds

For the purpose of testing, the above alternative hypothesis has been translated into null hypothesis.

Null Hypothesis: The opinions of university teachers about the role of API in promoting quality research in higher education do not differ significantly with respect to their subject backgrounds

One-way ANOVA (F-test) has been used to test the null hypothesis. The results of the F-test have been presented in the table below.

Table 5: Subject background-wise comparison of university teachers' opinion about the role of API in promoting quality research in higher education

Subject Background	N	Mean	Std Dev	F-value	p-value
Arts	40	23.23	6.09	0.619	0.604
Science	22	22.91	5.47		
Engineering	20	21.55	4.84		
Management	18	21.56	5.55		

It is evident from the above table that the F-value (0.619) is not significant at 0.05 significance level ($p < 0.05$). Hence, the null hypothesis is accepted at 0.05 significance level. This indicates that the opinions of university teachers about the role of API in promoting quality research in higher education do not differ significantly with respect to their subject backgrounds.

4.5 Teaching Experience-wise Comparison

The following alternative hypothesis has been formulated so as to study the difference in the opinions of university teachers about the role of API in promoting quality research in higher education in India with respect to their teaching experience.

Alternative Hypothesis: The opinions of university teachers about the role of API in promoting quality research in higher education differ significantly with respect to their teaching experience.

The above alternative hypothesis has been translated into null hypothesis for the purpose of testing.

Null Hypothesis: The opinions of university teachers about the role of API in promoting quality research in higher education do not differ significantly with respect to their teaching experience.

One-way ANOVA (F-test) has been used to test the null hypothesis. The result of the F-test has been presented in the following table.

Table 6: Teaching experience-wise comparison of university teachers' opinion about the role of API in promoting quality research in higher education

Teaching Experience	N	Mean	Std Dev	F-value	p-value
1-10 Years	58	21.82	5.32	0.567	0.638
11-20 Years	18	20.91	5.17		
21-30 Years	16	22.62	4.97		
Above 30 Years	8	23.51	5.54		

The digits from the table show that the F-value (0.567) is not significant at 0.05 significance level ($p > 0.05$). Hence, the null hypothesis is accepted at 0.05 significance level. This suggests that the opinions of university teachers about the role of API in promoting quality research in higher education do not differ significantly with respect to their teaching experience.

4.6 Analysis of Interview Responses

To understand the reasons behind the opinions of the teachers about the role of API in promoting quality research in higher education, an open-ended question has been asked. The analysis of responses to that question has been presented below.

What is your opinion about the role of Academic Performance Indicators (API) in improving the quality of research in higher education institutions?

Based on the degree of support, the responses to the question about Academic Performance Indicator (API) system in the faculty recruitment for higher education have been categorized under three categories namely: Do not support (46%) Partially Support (31%) and Support (23%). The responses clearly indicate that around half of the teachers who participated in the study expressed unfavourable attitude towards the API system. Around one third of the teachers participated in the study extended their partial support to the API system. Very few teachers offered their unconditional support to the API system.

The teachers who supported API system argued that it would promote research mind set among the teachers. To quote an assistant professor from a private university: *“API is a must. Because it makes teachers more serious about research. It is true that it has flaws and possibility of misuse. But it does not mean that we have to abolish it altogether”*. Most of the responses in this category were similar to the above statement. It is to be noted that almost all the teachers who supported the API have agreed that it has led to the emergence of fake journals and publication industries. However, they emphasized that the flaws and chances of misuse would have to be rectified to make it more effective. The teachers who partially supported the API system held that in addition to flaws and possibility of misuse, API score could not be stipulated as the only criterion to evaluate the performance of the teachers. They further pointed out that the quality of a teacher could not be measured completely through the API system.

The teachers who did not support the API system in faculty recruitment are against the idea of measuring the performance of the faculty through numbers. A professor from psychology department in a public university said,

No, I don't think API system will serve its purpose. Quality is more important than quantity. Just don't go by the numbers. Because, I know many people who boast themselves that 'I have written so many articles, so many books etc etc.. I have written so many books etc., etc.'. But, the quality ultimately suffers. You cannot have them in department just because they have "so much". A true teacher will stand apart from all these.

Most of the teachers who opposed the API system expressed similar concerns, especially the issue of quantifying the quality of research.

CONCLUSION

The study has attempted to understand the opinions of university teachers on the role of API in improving the quality of research in higher education institutions in India. The findings of the study suggest that most of the university teachers have been sceptical of the role of API system in improving the quality of teachers in general and the quality of research in particular. Contrary to the assumptions of the MHRD and the UGC, most of the teachers who participated in the study held the view that the API system has made the teachers more mechanical and ended up forcing them to focus more on increasing their API score rather than genuinely focusing on teaching and research. They also pointed out that such a situation which might adversely affect the overall of quality of higher education in India.

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