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Investigating Factors Affecting Accreditation Score of Higher Educational Institutions: A Case of Chhattisgarh

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Accreditation and assessment, Quality standards, Higher education, National assessment and accreditation council

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Abstract: Globalisation of higher education has compelled the Higher Educational Institutions (HEIs) and Universities to maintain the quality standard of higher education and boost innovation, skills, resilience and research mindset so as to meet the global dynamic requirements. Accreditation is an effective instrument of quality assurance for these institutions and universities since it provides educational institutions an increased sense of direction and identity with greater sense of accountability and enhanced credibility. National Assessment and Accreditation Council (NAAC) has been implementing the activity of quality assessment and accreditation of HEIs in India. The present study attempts to explore the factors affecting the criterion-wise score and also overall scoring pattern of accredited HEIs of Chhattisgarh state. Findings indicate that HEIs with postgraduation programme positively and that in rural areas negatively impact the accreditation scores. Results show developmental implications for all stakeholders including the government, the public and all institutions towards specific attributes for improving the accreditation scores or grades.

1. Introduction

Educational quality has an important role in strengthening the country's economic development and growth. Through social, economic, political and scientific aspects, education enables people to evolve into productive human resources. In India, following the independence, there was a radical change in the Higher Education sector. Since higher education was believed to regulate a country's future, Government of India gave higher education an utmost gravity. The objective of the government was to create the higher education system more expedient to the increasing demand of a developing economy. A holistic review of higher education was therefore imperative to restructure the entire system. Post-

independence, in the year 1948-49, the Radhakrishnan Commission (also called as University Grants Commission) was therefore appointed to review the status of the universities. As per the recommendations of Radhakrishnan Commission (1948), University Grants Commission (UGC) was constituted as a bridge between the central government and the universities.

In 1986, the National Policy of Education asserted on the need for evaluating and assessing the quality of higher educational institutions, which was further recommended and emphasised by Programme of Action (POA) in 1992. This led to the development of the National Assessment and Accreditation Council (NAAC) in 1994 by UGC. Over the two decades, NAAC has been implementing the activity of quality assessment and accreditation of higher educational institutions (HEIs) in India.

Assessment process on one hand involves identification of strengths and weaknesses of HEIs, whereas accreditation on the other, provides educational institutions an increased sense of direction and identity with greater sense of accountability and enhanced credibility. Therefore, assessment and accreditation for HEIs is not an end in itself, rather it is an instrument to achieve total quality with the use of robust methodology. Apart from accreditation, HEIs are ranked by various Ranking Agencies based on their own criteria and methodology since 2003. Overall, ranking and accreditation assures that these institutions satisfy the quality standards and foster active competition amongst the institutions so as to maintain and strengthen the quality.

To grow into more institutional friendly as well as to enhance the quality of HEIs, refinements in the assessment and accreditation process was implemented by NAAC in 2017. The new process, proposed a Quality Indicator Framework (QIF) to elicit quantitative (62.5 per cent weightage) and qualitative (37.5 per cent weightage) aspects of the process with the help of robust methodology. Thus, assessment and accreditation procedure of NAAC brought forth better understanding of quality education and also sensitised the HEIs regarding the seven quality parameters. These seven criteria which serve as basis for assessment of HEIs illustrate the key areas of functions and activities of HEIs, such as academic and administrative aspects of institutional functioning and also other emerging issues related to HEIs. These criteria are, Curricular Aspects (C1), Teaching-Learning and Evaluation (C2), Research, Innovations and Extension (C3), Infrastructure and Learning Resources (C4), Student Support and Progression (C5), Governance, Leadership and Management (C6) and Institutional Values and Best Practices (C7).

Further, NAAC also issues directives and encourages the HEIs to resolve much of its concerns with the help of the criteria and key indicators related to quality assessment and accreditation process. As per the all India survey on higher education (AISHE), 2019-20, in India there are 1043 universities, 42343 colleges and 11,779 stand alone institutions. Of these, 401 universities and 8,658 colleges have been accredited by NAAC.

Given that the established processes of accreditation are examined and amended at a regular interval, they act as an enabler for educational institution to recognise its strength, weaknesses and aid in planning, improving and developing necessary areas/aspects so as to get accredited. It also facilitates the potential students to gauge the quality of institutions and thereby make informed decision. As per the report by Hegde *et al.* (2021), numerous government colleges across India scored less than 2.00 in their cumulative grade point average (CGPA) except for few of the colleges. Also, according to Hassan

et al. (2019), although in India several universities and colleges have undergone accreditation process, it is still imperative to examine the accredited institutions in terms of CGPA and other variables like type of institution, constitution (co-educational, women's college), funding pattern (self-financed, grant-in aid, etc.) and so on, in order to obtain clear view on trend analysis. It is therefore necessary to study which factors (attributes) of such institutions have significant impact on the overall scoring pattern of CGPA under different criteria as assigned by NAAC. In India, hitherto, to best of knowledge, none of the studies have been undertaken to analyse the factors impacting the CGPA of HEIs.The present study thus seeks to fill the gap in the literature by empirical analysing the effect of factors on CGPA of accredited HEIs for the state of Chhattisgarh.

1.1. Status of Higher Educational Institutions in Chhattisgarh

The state of Chhattisgarh with high density of tribal population, is endowed with fauna and flora (rich in mineral resources) thereby giving it a potential to develop cutting-edged research in the various relevant areas, which is in accordance with the global expectations, standards and challenges. The higher education and the enrolment in these institutions in the state of Chhattisgarh has grown exponentially after it was carved-out from the State of Madhya Pradesh (see table 1). The State over the years also witnessed a significant rise in the number of HEIs offering conventional as well as technical, professional and medical courses. As per the report on AISHE 2019-20, there are 28 universities and 807 colleges in the State, of which seven universities and 172 colleges are accredited by NAAC.

Table 1: Number of Private and Government College and Enrolment in College

	Private Un-Aided	*Private Aided*	*Private Total*	*Government*	*Total*
Number of Colleges	353	81	434	373	807
Enrolment	1,23,008	37,254	1,60,262	2,67,687	4,27,949

Source: AISHE report 2019-20

Figure 1a and 1b indicates overall increasing trend in the student enrolment (gender wise) in various colleges over the years in Chhattisgarh. As is evident, the enrolment of female students has increased across all the courses over the years in the State. Interestingly, compared to all the courses, undergraduate courses witnessed highest rise in enrolment of students (both male and female) followed by diploma courses rather than the post graduate courses.

However, the present situation of higher education system in Chhattisgarh is complex and challenging. In 2017, the gross enrolment ratio (GER) was around 13 per cent well behind the national average of 22 per cent of GER. Further, as per the findings of Maiti *et al.*, (2022), there is a considerable difference in the quality of HEIs within government and private universities of Chhattisgarh state, specifically in context of classroom infrastructure, quality of teachers, extra-curricular courses, gender

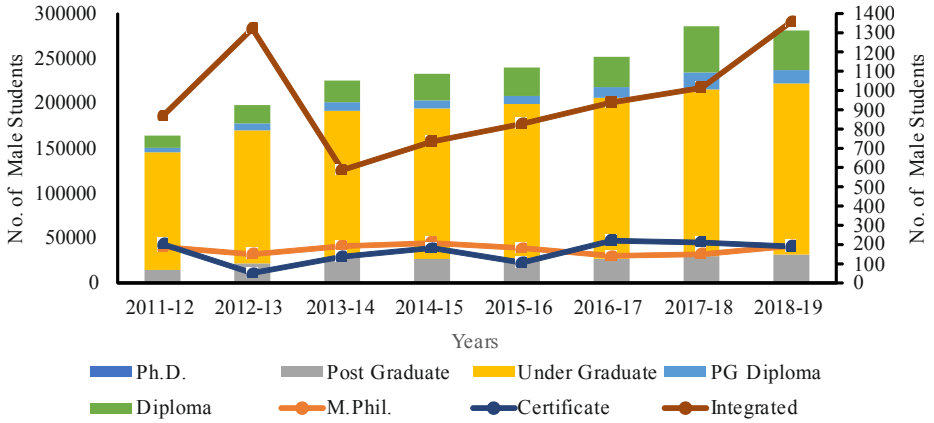

Figure 1a: Trends in the Male Students Enrolment over the Years

Source: Authors' Compilation from AISHE report 2019-20

parity ratio, etc. According to Kumar *et al.* (2021) accreditation may impact various core aspects of higher education, namely enrolments, academic prominence and internationalisation, research and development, quality of teaching and employability.

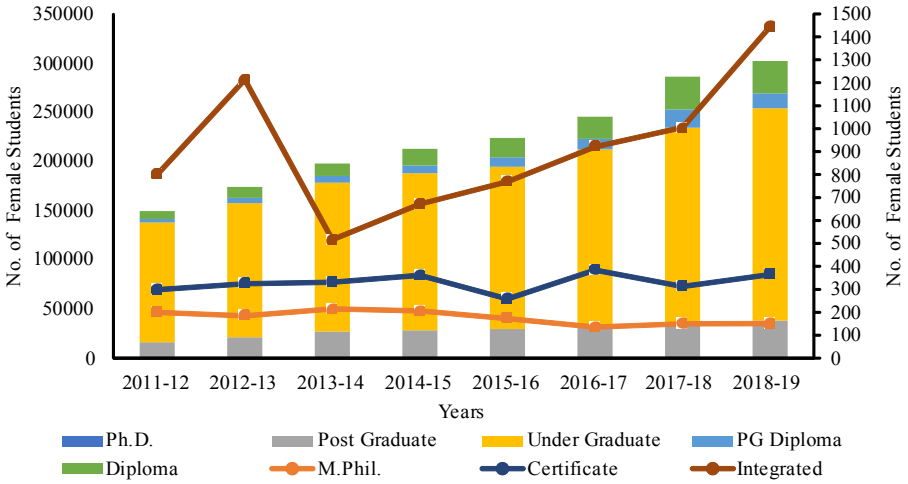

Figure 1b: Trends in the Female Students Enrolment over the Years

Source: Authors' Compilation from AISHE report 2019-20

2. Review of Literature

In several countries accreditation of higher education is quality endorsing process which comprises accreditation standards, self-review and peer review procedures, implementation of performance indicators, and so on. Accreditation thus has an important role in ensuring quality and quality

improvement for HEIs. Three strands of literature are surveyed for the current study. First, relates to literature on performance indicators and quality enhancement in HEIs in developed countries. The study conducted by Sarrico (2022) on the performance and quality of HEIs discusses the importance of performance indicator in light of the challenges faced by HEIs while utilising these indicators. The study also highlights the strengths and weaknesses of employing these indicators and the continuous burden surrounded by pressure of accountability, inspiration and innovation that these institutions witness while implementing performance indicators for improvement. Barbato *et al.* (2022) in their research recommend that a holistic approach should be implemented while evaluating the teaching and learning quality, although some competences and learning outcomes emerge more significant in enhancing the quality of teaching and learning. They also concluded that the perception of utility of performance indicator list amongst different stakeholder, viz., leadership, quality management staff, teachers and students, differs substantially and gets impacted by external factors and also collective internal practices. Stura *et al.* (2019) explored the relationship between quality performance and different discipline areas in 118 study programmes of Italy. They found significant relationship between technical/ engineering study programmes and good quality assurance results.

Second consists of impact of accreditation on various aspects of HEIs in developed and developing countries. Acevedo-De-los-Ríos and Rondinel-Oviedo (2021) in their paper examined the importance and value addition of accreditation as a means of ensuring quality for HEIs specifically in the area of architecture. Qualitative evaluation effect was observed by reviewing academic indicators and standards such as, pass rate or weighted average per year, before and after the accreditation procedures. The study also examined the positive impact of a quality assessment of accessible accreditation to students, teachers, and employers. In order to understand self-evaluation, evaluation and accreditation (quality mechanism) system among various disciplines, Makhoul (2019) in his research investigated whether teaching and learning gets enhanced and propels institutional changes because of attainment of accreditation in HEIs of Lebanon. It was deduced that accredited bodies in the country lack standard and shared practices. This study finds that there is a link between education recognition and growth of teaching and learning in these institutions. Dattey *et al.* (2014) in their study empirically examined the different effect of accreditation on public and private universities in Ghana. They found that there was wide gap in the assessment scores amongst these two categories of universities and that public universities perform better in assessment process.

Third, comprises of ranking and accreditation of HEIs in context of India. Fernandes and Singh, (2021) in their paper focused on accreditation and ranking system of Indian university to determine its efficiency in enhancing the academic quality so as to achieve better status globally in terms of quality. The study found laxity in the accreditation and ranking processes by Indian accreditation and ranking bodies as compared to the rigorous global accreditation and ranking practices. Srinivas (2019) in his study critically examined the HEIs controlled by central government of India vis-a-vis state level universities and colleges. He concluded that in context of quality of resources and funding, institutions directly under the control of central government perform reasonably good as compared to the state level universities and colleges. The state level institutions struggle with basic administrative infrastructural issues like vacant posts, political instability, legal proceedings and other issues. This further has led to

deterioration of the quality culture and quality enhancement thereby further marginalising the bottom of the pyramid. Gupta *et al.* (2021) in their study investigated the issues related to higher education in India and whether the ranking and accreditation systems have created a quality environment in the Indian higher education institutions. The study throws light on some of the important issues and challenges faced by Indian higher education that requires immediate attention. The study indicates that the ranking and accreditation system has significant impact on the performance consequences of the Indian institutions. Kumar *et al.* (2021) studied in detail about accreditation as a quality stamp which ensures that the program has gone through a meticulous process of peer evaluation. An accredited institute is thus based on the pre-determined detailed principle that complies with the minimum requirement.

3. Objectives

Given the above setting, the main intent of this paper is to empirically examine which variables or factors of accredited HEIs in Chhattisgarh contribute significantly to the overall scoring pattern of CGPA under different criteria as assigned by NAAC. The main objectives therefore are:

- To analyze the trend amongst accredited colleges in context of sources of fund, locations of institution, gender-based categories, program level, and program specializations.
- To study the correlation between the variables and the overall CGPA and Criterion wise grade point average (GPA) scoring pattern
- To investigate the impact of various variables of colleges on the scoring pattern of overall CGPA and Criterion wise GPA.

4. Data and Methodology

With an aim to empirically study the factors affecting the scoring pattern of HEIs, the present paper focuses on accreditation status of educational institutions of Chhattisgarh state. The data of 110 colleges have been taken for the analysis purpose as per CGPA score which was available from official website of NAAC. The data on scoring pattern of each college has been collected from Peer Team Reports and Self Study Reports, Annual Quality Assurance Reports and other materials available from NAAC.

Further, as mentioned earlier Hassan *et al.* (2019), stressed on the need to examine the accredited institutions in terms of CGPA and other variables like type of institution, constitution (co-educational, women's college), funding pattern (self-financed, grant-in aid, etc.) and so on, in order to obtain clear view on trend analysis. Therefore, in order to conduct quantitative analysis, data of these colleges on different variables viz., sources of fund, locations of institution, gender-based categories, program level, and program specializations were used. The empirical analysis was conducted in two steps: first, Pearson's correlation was employed in order to test the association between variables under the study and then multiple regression analysis was conducted to gauge the impact of variables on the scoring pattern of overall CGPA and Criterion-wise GPA.

The multiple regression is employed to predict the value of a dependent variable when two or more independent variables are given. The regression thus allows to estimate the best fit of the model and share of each independent variable in the total variance explained. However, to employ multiple

regression few assumptions such as independence of residuals, no autocorrelation, no multicollinearity and no heteroscedasticity are essential. Following regression equation was used to analyse the association between the variables:

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \ldots \ldots + \beta_p x_{ip} + \epsilon \quad (1)$$

where,

y_i = dependent variable, x_i = explanatory variables, β_0 = intercept, β_p = slope coefficients for each explanatory variable, ϵ = error term or residual term.

Thus, the regression equation for Curricular aspects (C1) is as follows:

$$C1_i = \beta_0 + \beta_1 \, Source\ of\ funding_{i1} + \beta_2 \, Location_{i2} + \beta_3 \, Gender_{i3} + \beta_4 \, Program\ Level_{i4} + \beta_5 Programbased\ category_{i5} + \epsilon \quad (2)$$

Similar specification is assumed for each criterion and also overall CGPA by replacing the dependent variable with specific criteria score of interest and also overall CGPA.

5. Findings and Discussions

5.1. Trend Analysis

Table 2 indicates CGPA range wise distribution of accredited colleges of Chhattisgarh. Evidently out of 110 accredited colleges in the state, less than one per cent obtained highest CGPA (3.51 to 4.00) whereas around 48 per cent of colleges scored between 2.01 to 2.50. Further, figure 2 indicates CGPA range wise distribution of colleges in terms of source of funding and its location. It could be inferred that government funded colleges as well private colleges that scored between 2.01 to 2.50 and between 3.01 - 3.25 were almost at par with each other.

Contrarily, the accredited grant in aid colleges were far lesser in numbers (five colleges) and were mostly concentrated between the CGPA range of 2.01 to 2.50. In context of location of these colleges, compared to urban area colleges, a greater number of rural and semi-urban colleges (29 per cent) have scored between 2.01 to 2.50 CGPA, whereas, 21 per cent of colleges in urban areas have secured CGPA of more than 2.50 compared to that of rural and semi-urban areas.

Table 2: CGPA Range wise Distribution of Accredited Colleges of Chhattisgarh

CGPA range	*Number of Colleges*
1.51 to 2.00	18
2.01 to 2.50	53
2.51 to 2.75	21
2.76 to 3.00	9
3.01 to 3.25	8
3.51 to 4.00	1
Total	110

Source: Authors' Compilation from NAAC website

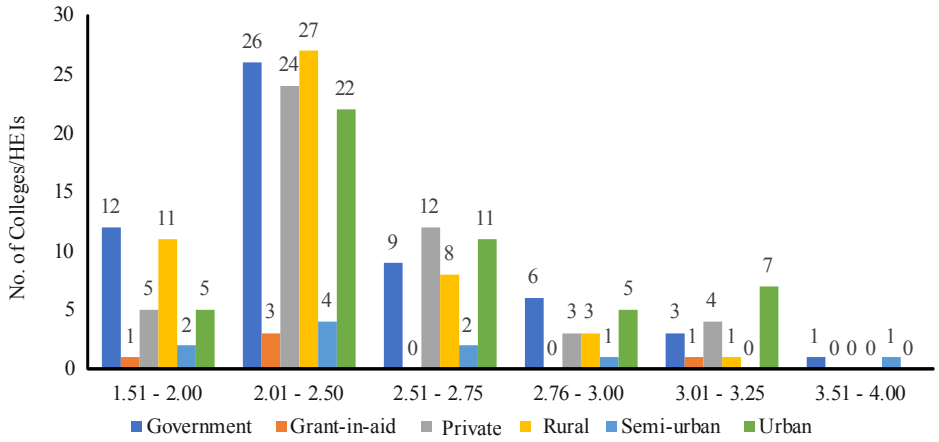

Figure 2: CGPA Range wise Distribution of Accredited Colleges as per Source of Funding and Location

Source: Authors' Compilation from NAAC website

Further, figure 3 displays CGPA range wise distribution of colleges in terms of gender (Co-education, Women's only), programme level (undergraduate level-UG, postgraduate level- PG). Interestingly in Chhattisgarh, most of the colleges (more than 90 colleges) that got accredited were co-ed and had PG level programmes. However, among these colleges, colleges that scored between 2.01 to 2.50 CGPA were also highest (43 per cent-coeducation colleges and 39 percent-PG level), followed by colleges scoring between 2.51 to 2.75 CGPA (18 per cent-coeducation colleges and 17 percent-PG level).

Lastly, figure 4 exhibits CGPA range wise distribution of accredited colleges in terms of programme-based (discipline) category viz., education, engineering and general. The trend shows that out of the total number of accredited colleges, highest number of colleges that scored between 2.01 to 2.50 CGPA belong to education and general category colleges, whereas, fewer percentage of colleges in all the three categories have scored more than 2.50 CGPA. As mentioned before, it is thus clear from trend analysis that accredited colleges of Chhattisgarh have not performed well in terms of overall CGPA scoring.

5.2. Correlation and Regression

Next step is to find out the whether the variables like sources of fund, location of institutions, gender-based categories, program level, and program specializations are correlated with CGPA scores and Criterion wise GPA. Further, it is also necessary to estimate whether these variables affect the overall CGPA and Criterion wise GPA scoring pattern. To this end, Pearson's correlation test and multivariate regression has been employed. The results of Pearson's correlation matrix between the variables under the study has been presented in table 3.

Evidently, on one hand CGPA scores and the variable location is negatively correlated, on the other, CGPA scores and variables such as gender and source of funding have very weak correlation.

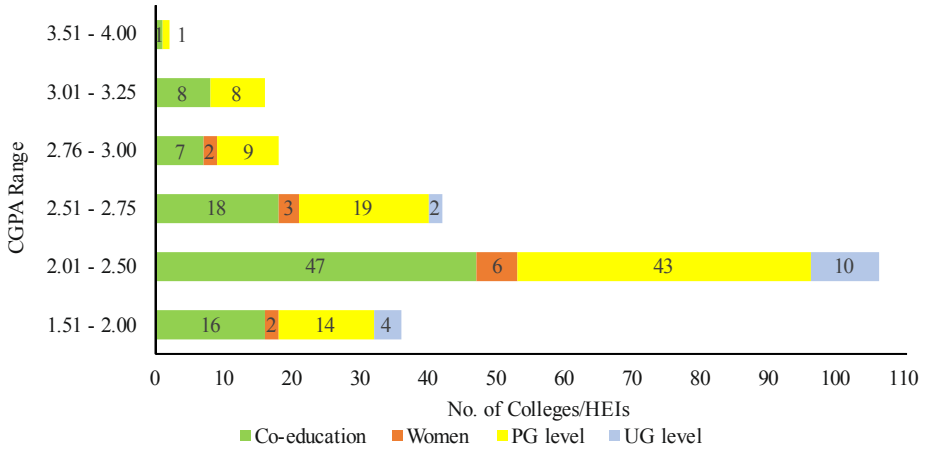

Figure 3: CGPA Range wise Distribution of Accredited Colleges as per Gender and Programme Level

Source: Authors' Compilation from NAAC website

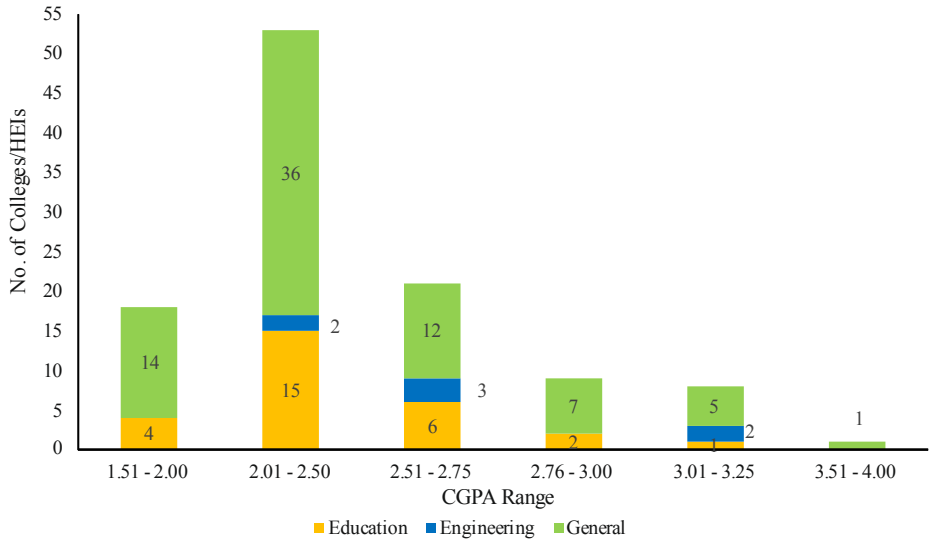

Figure 4: CGPA Range wise Distribution of Accredited Colleges as per Programme-based Category

Source: Authors' Compilation from NAAC website

Interestingly, the variable location has negative correlation not only with overall CGPA but also with each GPA of each criteria. Overall it can be deduced that colleges located in rural and semi-urban areas do not perform well in terms of their scoring pattern compared to their counterparts. There is weak positive or negative correlation between Gender and different seven criteria.

Table 3: Correlation Matrix

	CGPA	*C1*	*C2*	*C3*	*C4*	*C5*	*C6*	*C7*
Source of funding	0.07	0.11	-0.12	-0.03	0.33	0.12	0.04	0.10
Location	-0.32	-0.20	-0.37	-0.15	-0.25	-0.19	-0.27	-0.24
Gender	0.03	0.01	0.03	0.13	-0.04	0.03	-0.07	-0.01
Programme level	0.24	0.19	0.36	0.26	0.06	0.10	0.17	0.13
Programme based category	0.14	0.25	-0.11	0.02	0.38	0.15	0.16	0.14

Source: Authors' Calculation

Further, in terms of Criterion-wise scoring pattern, the observations are: a) there is moderate positive relationship between programme level and teaching-learning and evaluation (C2), b) criteria infrastructure and learning resources (C4) and variables sources of funding as well as programme-based category have positive relationship with each other, c) location and criteria teaching learning and evaluation (C2) is negatively correlated with each other. However, the correlation just shows the relationship between the two variables and does not examine the effect of one variable on the other. Therefore, multiple regression has been used to know which explanatory variable affects the dependent variable and to what extent dependent variable get affected by explanatory variables. Table 4 reflects result of multiple regression by using equation (1).

Table 4: Regression Analysis

Independent Variable	*Dependent Variable*							
	CGPA	*C1*	*C2*	*C3*	*C4*	*C5*	*C6*	*C7*
Source of funding	0.02**	0.02	-0.01	0.03	0.11***	0.06	-0.03	0.04
Location	-0.10*	-0.07	-0.14*	-0.05	-0.08	-0.09	-0.12**	-0.13**
Gender	0.08	0.13	0.01	0.26***	0.09	0.13	-0.07	0.05
Programme level	0.31*	0.44*	0.33*	0.44*	0.31**	0.28	0.25***	0.28
Programme-based category	0.11	0.29*	-0.03	0.08	0.25*	0.14	0.18***	0.13
Constant	2.09*	1.80*	2.39*	1.55*	2.06*	2.11*	2.05*	1.96*
R square	0.17	0.16	0.23	0.11	0.24	0.07	0.13	0.09
Robustness Tests								
Leven's Test (F statistics)	1.27	1.10	1.30	1.23	1.34	1.21	1.22	1.32
Durbin-Watson	1.78	1.93	1.88	2.04	2.15	1.60	1.79	1.92
Normality Statistics	0.83	0.74	0.63	0.73	0.91	0.84	0.71	0.82
F-Statistics	4.36	3.86	6.29	2.57	6.45	1.64	3.02	2.16
Sig.	0.00	0.03	0.00	0.03	0.00	0.05	0.01	0.06

Source: Authors' Calculations

Note: * 1% significance level, ** 5% significance level, *** 10% significance

It is evident from table 5 that the most important factor affects the overall CGPA scoring pattern is the programme level offered by the college. In other words, the findings indicate that colleges which give PG level programme have more positive impact on the scoring pattern compared to UG level. Programme level also significantly and positively impacts the GPA of Curricular Aspects (C1), Research, Innovations and Extension (C3), Infrastructure and Learning Resources (C4) and Governance, Leadership and Management (C6). Intuitively, it could be argued that HEIs offering post graduate program will have more inclination to develop, implement and revise their curriculum to suit to the changing global, national and regional developmental needs. They also strive to create more infrastructure with information communication and technology (ICT) enabled facilities like smart class, learning management system (LMS), etc., and frequently upgrade their research facilities and provide an ecosystem for innovation and creation of knowledge. Additionally, these institutions also optimise the usage of their available resources by offering different PG courses.

Another factor location of the college has negative impact on the overall CGPA and also on each Criterion- wise GPA. However, it is observed that HEIs in rural and semi urban areas affect adversely and significantly not only to the scoring pattern of overall CGPA but also to criteria such as Teaching-Learning and Evaluation (C2), Governance, Leadership and Management (C6) and Institutional Values and Best Practices (C7). As highlighted by Aneja (2015), the probable reasons are: i) HEIs in rural area specifically face dearth of quality teachers and teaching. There is absence of proper quality training to upgrade the teachers and the teaching methods even today are imperialist in nature; ii) quality of Indian school in such areas is extremely low, leaving students unequipped with proper training and priori knowledge. This results into further deterioration of their performance at higher educational level; iii)HEIs in rural areas lack proper infrastructure like incompetent library, classrooms, laboratory, and state-of-art computer facilities; iv) these HEIs also face issues of accountability of governance and management.

The factor programme-based category although does not have significant impact on overall CGPA, it does significantly and positively affect the GPA of Curricular Aspects (C1), Infrastructure and Learning Resources (C4) and Governance, Leadership and Management (C6). This means traditional colleges (general category) comprising of arts, commerce and science faculty are doing better as compared to teachers' education and engineering colleges. The explanations possibly are: a) these courses impelled by local demand and job requirements continuously undergo syllabi restructuring with quality teaching and evaluation system; b) such institutions have efficient and effective use of infrastructure and facilities (like sports, printing, internet, etc.) along with well-resourced laboratories and ICT based services on the campus;c) the management of such institutions are driven by specific targets, have transparency in decision making and decentralised execution, optimum utilisation of monetary resources and proper management of budgets.

Surprisingly the factor gender (co-ed or women's only colleges) do not have any significant impact on the overall CGPA scoring pattern or on Criterion-wise GPA except for Research, Innovations and Extension (C3).This implies that co-ed or women's college does not have any impact on the accreditation scores.

Overall the regression estimators pass all the robustness checks. In other words, the model is free from autocorrelation (as indicated by D-W statistics) and multicollinearity (since variance inflation

factor-VIF, for all variables and equations ranges between 1.06 – 3.45). Further, the normality tests confirm that the residuals are normally distributed and Levene's test point that residual of dependent variable is equal across all variables, i.e. there is no problem of heteroscedasticity.

6. Recommendations

To reach and achieve highest scores and grade for accreditation there is an urgent need for HEIs in the state of Chhattisgarh in specific and for other states in general to relook at the access and equity, quality standards, relevance, infrastructure and optimum utilisation of financial resources. Additionally, all stakeholders including the government, the management and all institutions should focus on the following:

- The State Government may develop the policy for Higher Education in Chhattisgarh covering all aspects of Higher Education.
- Provide financial assistance specifically to Government colleges and Universities for payment of necessary fees and meet minimum expenditure for facilitating the visit.
- Hold seminars and workshops for creating awareness, assist HEIs to prepare SSRs and explain various contents involved in the process. Handholding policy is to be followed for weak institute.
- There must be a benchmark for excellence, therefore for creating better environment in teaching and research, decentralised special courses in the remote and backward area should be encouraged thereby creating new university and colleges.
- Special efforts to propagate education for women and also for rural and tribal areas.
- Collaborating with other universities/research institutions/industries for various programmes.
- Ensuring of high standards of accountability and transparency.

7. Conclusion

Globally it is evident that the established processes of accreditation act as an enabler and positively impact the quality and excellence of HEIs, since they are amended, modified and reviewed periodically. NAAC has been implementing the activity of quality assessment and accreditation of HEIs in India. The present study attempts to explore the factors viz., sources of fund, locations of institution, gender-based categories, program level, and program specializations affecting the Criterion-wise score and also overall scoring pattern of 110 accredited HEIs of Chhattisgarh state.

Trend analysis results indicate that out of total number of accredited colleges surveyed in this study, very few colleges obtained highest CGPA whereas larger number of these colleges scored between 2.01 to 2.50. Additionally, a greater number of rural and semi-urban colleges have scored between 2.01 to 2.50 CGPA. The correlation analysis suggests overall moderate correlation between the variables under the study. Findings of regression estimates demonstrate that HEIs with postgraduation programme positively and that in rural areas negatively impact the overall CGPA and also few Criterion-wise GPA. Furthermore, HEIs offering general stream does influence positively to few Criterion-wise GPA but not to overall CGPA. However, the CGPA or Criterion-wise scores were not affected by source of funding pattern of these institutions or on the basis of gender (co-ed or women's only) in the state.

The present investigation thus reveals that an educational institution offering post graduate programme has positive influence on accreditation scores, whereas, an institution situated in rural area (or remote or backward areas) influence the scores negatively. Therefore, findings of this study are expected to serve as general guidelines to all stakeholders including the government, the management and all institutions. The diagnosis of accredited HEIs of Chhattisgarh state indicates suitable strategic measures like efficient use of all available resources and opportunities, capacity building, supportive management, etc., so as to achieve successful and sustainable quality education both at state and regional level.

This study is limited to investigation of factors affecting the accreditation scores of HEIs of Chhattisgarh state only based on secondary source. Further research could be carried on for accredited HEIs of other states and a comparative analysis could be undertaken using econometric tools. Also, a primary survey could be undertaken to understand problem at root level.

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