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Accreditation as a Marker of Institutional Reliability: An Analysis of National and International Accreditation Perceptions

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Abstract

This study explores the perceived necessity of accreditation as a factor of reliability in higher education institutions, focusing specifically on the impact of national (R5) and international (R6) accreditation. Drawing on data collected from 412 respondents, the study evaluates the relationships among these variables through descriptive statistics, correlation analysis, and multiple regression modeling. Descriptive results suggest that all three variables—R5, R6, and B8 (necessity of accreditation)—received high mean scores, indicating a general agreement among respondents about their importance.

Correlation analyses revealed a strong relationship between national and international accreditation (r = 0.701), suggesting institutions that pursue one form of accreditation often also pursue the other. However, only weak yet statistically significant correlations were found between both R5 and B8 (r = 0.200), and R6 and B8 (r = 0.275), indicating that while accreditation is seen as relevant to reliability, the distinction between national and international does not heavily influence this perception. Regression analysis confirmed that only R6 had a significant positive influence on B8, while R5 did not.

The study confirms the essential role of accreditation—particularly international—in shaping perceptions of institutional reliability. These insights are critical for institutional leaders, educators, and policymakers who aim to position their institutions as credible and globally recognized entities. The paper concludes with managerial implications for strategic decisions in accreditation and institutional branding.

Keywords

Accreditation, Branding of Management Institutes, International, National

INTRODUCTION

Accreditation in higher education serves as a key indicator of institutional quality and trustworthiness. It signals that an institution meets established standards of academic excellence, transparency, and accountability. In recent years, the growing competitiveness in global education markets has prompted institutions not only to seek national accreditation but also to pursue international recognition. This dual approach is perceived as a strategy to enhance reputation, assure stakeholders, and attract both domestic and international students.

India, with its expansive higher education landscape, has witnessed a surge in interest toward both national and international accreditations. National agencies like NAAC and NBA provide structured frameworks for quality assessment, while global accreditation bodies such as AACSB, EQUIS, and AMBA help institutions gain international credibility. However, a critical question remains: does accreditation—whether national or international—actually influence perceptions of institutional reliability among stakeholders?

This study attempts to examine this question through empirical data collected from 412 respondents. It focuses on three primary variables: R5 (national accreditation), R6 (international accreditation), and B8 (the perceived necessity of accreditation as a reliability factor). The aim is to understand the strength of relationships among these variables and the individual contribution of each accreditation type toward the perception of reliability.

The study is particularly relevant in the context of increasing pressure on institutions to demonstrate continuous improvement and transparency. Accreditation is often viewed as a symbolic and operational measure to assure quality; however, its impact on perceived reliability has not been extensively quantified. By applying statistical techniques such as correlation analysis and regression modelling, this paper contributes empirical evidence to the ongoing discourse on the role of accreditation in institutional trustworthiness.

REVIEW OF LITERATURE

Accreditation is widely regarded as a quality assurance mechanism that assures stakeholders of an institution's academic integrity and operational effectiveness. Quality in education is often defined as "fitness for purpose," with accreditation serving as a mechanism to ensure that institutions achieve their intended educational outcomes [1].

Research emphasized that accreditation enhances stakeholder confidence, including students, faculty, employers, and international collaborators [2]. Similarly, another research suggested that global rankings and international accreditations increasingly shape perceptions of institutional quality, especially among globally mobile students [3].

In the Indian context, national accreditation bodies such as NAAC and NBA have been observed to enhance institutional

transparency and promote a culture of continuous improvement [4]. However, the symbolic value of international accreditation is perceived to exceed that of national frameworks, as it facilitates global recognition and partnerships [5].

Accreditation serves both as an accountability mechanism and as a catalyst for institutional self-improvement. Despite variations in systems globally, the overarching goal remains consistent: to reinforce institutional credibility among students, regulatory bodies, and employers [6]. This underscores the need to study accreditation's influence not just operationally but perceptually.

A comparative study revealed that international accreditation often serves as a proxy for institutional prestige in the absence of global rankings [7]. International accreditation reflects an institution's preparedness to compete and operate effectively in a global, borderless educational landscape [8].

On the other hand, another research pointed out that excessive emphasis on accreditation could reduce innovation, suggesting that institutions may focus more on compliance than actual learning outcomes. Nonetheless, in reputation-sensitive environments, perceptions hold substantial weight [9]

While existing studies have examined the role of accreditation in quality assurance, few have quantitatively analysed how national and international accreditations individually contribute to the perception of reliability. This study aims to bridge that gap.

OBJECTIVE

To assess the individual and combined influence of national accreditation and international accreditation on the perceived necessity of accreditation as a reliability factor in higher education institutions.

ANALYSIS

Table :1 Descriptive Statistics

	Mean	Std. Deviation	N
R5	3.87	1.031	412
R6	3.85	1.017	412
B8	3.93	1.039	412

The descriptive statistics for the three accreditation-related variables (R5, R6, and B8) based on 412 responses indicate a generally positive perception toward accreditation as a reliability factor. National accreditation (R5) has a mean of 3.87 and international accreditation (R6) a mean of 3.85, both reflecting moderate agreement among respondents with relatively low variability. The necessity of accreditation (B8) holds the highest mean at 3.93, suggesting slightly stronger agreement on its overall importance for institutional reliability. Standard deviations for all three variables are similar, indicating consistent responses. Overall, respondents view accreditation, especially its necessity as an important reliability indicator.

The correlation analysis among national accreditation (R5), international accreditation (R6), and the necessity of accreditation as a reliability factor (B8) reveals meaningful but varied relationships. A strong and statistically significant positive correlation exists between R5 and R6 ($r = 0.701$, $p < 0.01$), indicating that institutions with strong national accreditation are also likely to possess strong international accreditation. Both R5 and R6 show weak but statistically significant positive correlations with B8—R5 with B8 ($r = 0.200$) and R6 with B8 ($r = 0.275$). This suggests that while accreditation (especially international) is perceived as important for reliability, its direct influence on such perceptions is limited. The covariance values further support the pattern of moderate shared variance, particularly between R5 and R6 (0.735), and more modest shared variance between accreditation types and the reliability factor (0.214 and 0.291, respectively).

Table 2: Correlations

		R5	R6	B8
R5	Pearson Correlation	1	.701**	.200**
	Sig. (2-tailed)		.000	.000
	Sum of Squares and Cross-products	436.922	302.136	88.068
	Covariance	1.063	.735	.214
	N	412	412	412
R6	Pearson Correlation	.701**	1	.275**
	Sig. (2-tailed)	.000		.000
	Sum of Squares and Cross-products	302.136	425.262	119.631
	Covariance	.735	1.035	.291
	N	412	412	412
B8	Pearson Correlation	.200**	.275**	1
	Sig. (2-tailed)	.000	.000	
	Sum of Squares and Cross-products	88.068	119.631	443.816
	Covariance	.214	.291	1.080
	N	412	412	412

***. Correlation is significant at the 0.01 level (2-tailed).*

Nonparametric Correlations

Table 3: Nonparametric Correlations

			R5	R6	B8
Spearman's rho	R5	Correlation Coefficient	1.000	.698**	.244**
		Sig. (2-tailed)	.	.000	.000
		N	412	412	412
	R6	Correlation Coefficient	.698**	1.000	.298**
		Sig. (2-tailed)	.000	.	.000
		N	412	412	412
	B8	Correlation Coefficient	.244**	.298**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	412	412	412

***. Correlation is significant at the 0.01 level (2-tailed).*

The Spearman's rank-order correlation analysis corroborates the findings from the Pearson correlation analysis. There is a strong and significant correlation between national and international accreditation, indicating that institutes with high national accreditation often also achieve high international accreditation. However, the perceived necessity of accreditation as a reliability factor shows only weak correlations with both national and international accreditations, despite being statistically significant. This suggests that while accreditation is viewed as important for reliability, the specific type of accreditation (national or international) has a limited influence on this perception.

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Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.276	.076	.071	1.0014	.076	16.802	2	409	.000	2.153

a. Predictors: (Constant), R6, R5
b. Dependent Variable: B8

The model summary indicates the results of a multiple regression analysis where the dependent variable is B8 (necessity of accreditation as a reliability factor), and the independent variables are R5 (national accreditation) and R6 (international accreditation). The R value of 0.276 represents a low to moderate positive correlation between the predictors and the outcome variable. The R Square value is 0.076, meaning that approximately 7.6% of the variance in B8 is explained by the combination of R5 and R6. The Adjusted R Square value of 0.071 adjusts for the number of predictors and confirms that the model's explanatory power is modest. The standard error of the estimate is 1.0014, indicating the average distance between the observed and predicted values. The F-change statistic is significant ($F = 16.802$, $p < 0.001$), demonstrating that the model significantly improves prediction of B8 compared to a model with no predictors. The Durbin-Watson statistic is 2.153, which is close to 2, suggesting that there is no serious autocorrelation in the residuals. Overall, the model is statistically significant, though the effect size remains small.

The ANOVA table presents the significance of the regression model where B8 (the necessity of accreditation as a reliability factor) is the dependent variable, and R5 (national accreditation) and R6 (international accreditation) are the predictors. The regression sum of squares is 33.696 with 2 degrees of freedom, indicating the variation in B8 explained by the predictors. The residual sum of squares is 410.119 with 409 degrees of freedom, representing the unexplained variation. The total sum of squares is 443.816, which is the overall variation in the dependent variable. The mean square for the regression is 16.848, and for the residuals, it is 1.003. The F-value is 16.802, and the associated significance level (p-value) is .000, indicating that the model is statistically significant. This means that the combined effect of R5 and R6 significantly predicts B8, and the probability of this result occurring by chance is extremely low.

Table 5: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.696	2	16.848	16.802	.000[b]
	Residual	410.119	409	1.003		
	Total	443.816	411			

a. Dependent Variable: B8
b. Predictors: (Constant), R6, R5

Table 6: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.827	.208		13.598	.000					
	R5	.014	.067	.014	.206	.837	.200	.010	.010	.509	1.966
	R6	.271	.068	.266	3.988	.000	.275	.193	.190	.509	1.966

a. Dependent Variable: B8

The regression results show that international accreditation (R6) has a significant positive impact on the perceived necessity of accreditation (B8), with a coefficient of 0.271 and $p < 0.001$. In contrast, national accreditation (R5) has no significant effect ($p = 0.837$). The model is statistically significant overall ($F = 16.802$, $p < 0.001$), though it explains only 7.6% of the variance in B8. There is no issue of multicollinearity, as VIF values are within acceptable limits.

Table 7: Coefficient Correlations

Model			R6	R5
1	Correlations	R6	1.000	-.701
		R5	-.701	1.000
	Covariance's	R6	.005	-.003
		R5	-.003	.005

a. Dependent Variable: B8

The coefficient correlations table reveals a strong negative correlation of -0.701 between the two predictors, R6 (international accreditation) and R5 (national accreditation), indicating that as one increases, the other tends to decrease. Each variable has a perfect correlation of 1.000 with itself, as expected. The covariance values further support this inverse relationship, with a negative covariance of -0.003 between R6 and R5. Despite this high inter-correlation, earlier VIF values suggest multicollinearity is not problematic in the model. Overall, the data suggests a strong inverse relationship between national and international accreditation scores.

Table 8: Collinearity Diagnosticsa

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	R5	R6
1	1	2.942	1.000	.01	.00	.00
	2	.038	8.811	.99	.16	.13
	3	.020	12.252	.00	.84	.86

a. Dependent Variable: B8

The collinearity diagnostics table helps assess multicollinearity among the predictors R5 (national accreditation) and R6 (international accreditation). The condition index for Dimension 3 is 12.252, which is below the critical threshold of 30, suggesting no severe multicollinearity.

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However, high variance proportions for both R5 (84%) and R6 (86%) are concentrated in Dimension 3, indicating that these two predictors share a large proportion of variance on the same small eigenvalue. While this points to some degree of collinearity, it is not critical, especially since earlier VIF values were within safe limits. Thus, collinearity is present but not at a level that threatens the stability of the regression model.

Table 9: Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.113	4.254	3.927	.2863	412
Residual	-3.2538	1.8874	.0000	.9989	412
Std. Predicted Value	-2.845	1.141	.000	1.000	412
Std. Residual	-3.249	1.885	.000	.998	412

a. Dependent Variable: B8

The residuals statistics provide an overview of the accuracy and distribution of the model's predictions. The predicted values for the dependent variable B8 range from 3.113 to 4.254, with a mean of 3.927 and a standard deviation of 0.2863, indicating moderate variability in the predicted scores. The residuals, which represent the difference between observed and predicted values, range from -3.2538 to 1.8874, with a mean very close to zero (0.0000), suggesting no systematic bias in the model's predictions. The standard residuals also range from approximately -3.25 to 1.89, falling mostly within the acceptable ±3 range, indicating no major outliers. Overall, the residuals appear to be normally distributed and centered around zero, supporting the model's assumption of homoscedasticity and adequate predictive accuracy.

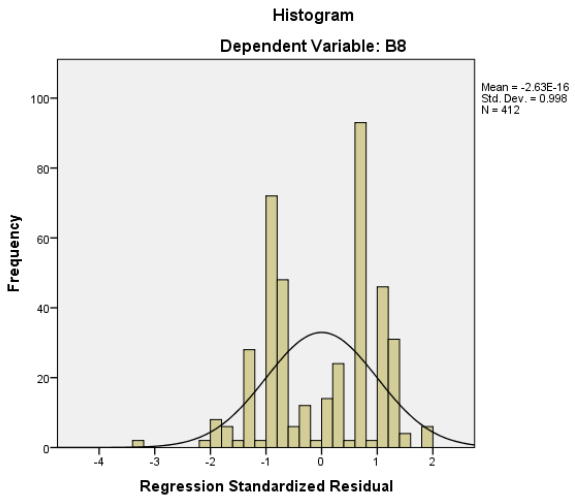

Figure 1: Regression standardized residuals

The histogram displays the frequency distribution of the regression standardized residuals. It shows a roughly bell-shaped curve, with the majority of residuals clustering around zero and tapering off symmetrically on both sides. The overlaid normal curve fits the data reasonably well, confirming that the residuals follow an approximately normal distribution. This supports the assumption of normality, suggesting that the regression model's errors are randomly and evenly distributed.

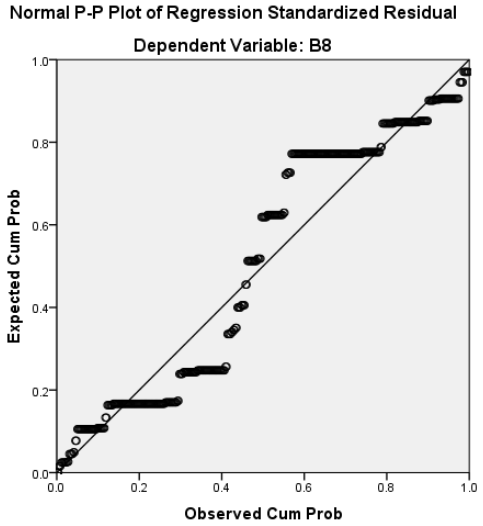

Figure 2: normal probability–probability (P–P) plot

The normal probability–probability (P–P) plot compares the observed cumulative probabilities of the standardized residuals with the expected normal distribution. In this plot, most of the points lie close to the diagonal line, indicating that the residuals are approximately normally distributed. Although there are minor deviations at the extremes, the overall pattern supports the assumption of normality in the residuals, which is a key requirement for valid regression analysis.

FINDINGS

Descriptive analysis revealed high average ratings across all variables: national accreditation (R5) had a mean of 3.87, international accreditation (R6) 3.85, and the necessity of accreditation (B8) 3.93. This indicates a broadly positive perception of accreditation among respondents.

Correlation analysis showed a strong positive relationship between R5 and R6 ($r = 0.701$), meaning institutions that are nationally accredited often also pursue international accreditation. However, the correlations between R5 and B8 ($r = 0.200$), and R6 and B8 ($r = 0.275$) were both weak yet statistically significant, indicating that although accreditation is considered important for reliability, its direct association with the specific type of accreditation is limited.

Multiple regression analysis further confirmed these patterns. The model was statistically significant ($F = 16.802$, $p < 0.001$) and explained 7.6% of the variance in B8. Among the predictors, only R6 (international accreditation) had a significant effect on B8 ($\beta = 0.266$, $p < 0.001$), while R5 (national accreditation) did not show a significant contribution ($p = 0.837$).

Residual analysis and normality tests (histogram and P–P plot) showed that model assumptions were met. Residuals were normally distributed, with no major outliers or patterns, confirming model robustness.

Collinearity diagnostics revealed no issues, although R5 and R6 had a high inverse correlation (-0.701), the VIF values (1.966) were within acceptable limits.

In summary, while both national and international accreditations are valued, international accreditation appears to have a greater influence on stakeholders' perceptions of reliability.

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CONCLUSION

This study provides meaningful insights into how stakeholders perceive the necessity of accreditation for institutional reliability. Based on the responses from 412 individuals, it is evident that accreditation—especially international—is viewed as a key factor in ensuring the trustworthiness and credibility of higher education institutions.

While national and international accreditations are closely linked, only international accreditation showed a statistically significant influence on the perception of reliability. This reflects a growing trend where global standards and recognition are gaining more weight in stakeholder decision-making, especially among students, faculty, and employers.

Despite the modest explanatory power of the model (R^2 = 0.076), the findings underscore the symbolic and strategic value of international accreditation. Institutions that aim to strengthen their reputation and attract global partnerships must consider investing in international frameworks, even if they already possess national accreditation.

The weak correlations between accreditation types and perceived reliability also suggest that while accreditation is necessary, it is not the sole factor influencing stakeholders' trust. Elements such as faculty quality, student outcomes, infrastructure, and industry linkages may also play a vital role.

Overall, the study confirms the relevance of accreditation in institutional branding and quality assurance but also highlights the nuanced differences between national and international recognitions in shaping stakeholder perceptions.

Managerial Implications

1. **Strategic Planning:** Educational institutions should incorporate international accreditation into their strategic goals to enhance their global standing and stakeholder trust.
2. **Branding and Communication:** Marketing efforts should emphasize international accreditation as a credibility marker to attract global students and partnerships.
3. **Resource Allocation:** Since international accreditation impacts reliability perception more significantly, institutions can prioritize resources towards achieving and maintaining these recognitions.
4. **Continuous Improvement:** Accreditation processes—especially international—can serve as frameworks for ongoing institutional improvement, aligning academic practices with global benchmarks.
5. **Stakeholder Engagement:** Management should educate students, parents, and recruiters about the meaning and impact of accreditations to strengthen institutional reputation and enrollment.

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