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A STRUCTURED MATHEMATICAL APPROACH TO SOUL ANALYSIS

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Abstract: Soul Analysis is an emerging psychological framework that seeks to explore the deeper, non-material dimensions of human experience, including values, meaning-making processes, inner conflicts, aspirations, and identity formation. Central to this approach is the concept of the *Soul Set*, an internal structural model of the self that extends beyond behaviourist and cognitive perspectives. This paper introduces a mathematical formulation of Soul Sets and demonstrates its application in modelling the collective soul attributes of a college. The study further examines how the perception factor within the National Institutional Ranking Framework (NIRF) related with total score of NIRF and how it is influenced by underlying soul elements. The findings reveal that quantifiable soul parameters can offer new insights into institutional perception and provide predictive value for organisational development.
Keywords: Set, Fuzzy set, Soul Set, Soul of College, Analysis, Perception, NIRF

1 INTRODUCTION

Higher education institutions are increasingly evaluated not only by their academic outcomes or physical infrastructure, but also by the deeper cultural, psychological, and relational forces that define their internal functioning. In this context, the concept of the Soul of a College offers a powerful analytical framework for understanding the core inner drivers that shape institutional identity and long-term success. The "soul" represents the institution's internal value system, academic culture, human relationships, motivational climate, and integrity-driven practices. These elements, though intangible form, the foundational energy that influences behaviour, work culture, emotional climate, and the stability of academic outcomes. Unlike visible indicators such as buildings, facilities, or administrative structures, the soul is experienced through interaction, felt through atmosphere, and manifested through consistent performance and meaningful stakeholder engagement.

Alongside the internal soul exists the Perception of a College, which refers to how the institution is viewed externally by students, parents, alumni, faculty, employers, and broader society. Perception is shaped by experiences, public image, reputation, academic credibility, campus atmosphere, graduate quality, and increasingly, social media narratives and ranking systems such as NIRF. While perception is immediate and externally constructed, the soul is gradual and internally cultivated. The two are inherently connected: a strong and healthy soul produces positive experiences that elevate institutional perception, whereas a weak soul leads to inconsistent outcomes, internal tensions, student dissatisfaction, and ultimately a decline in public reputation, even if the college has strong marketing or infrastructure.

Understanding the relationship between soul and perception is therefore essential for evaluating institutional effectiveness. When the soul is strong—supported by shared vision and values, a vibrant academic culture, nurturing relationships, high motivation, and institutional integrity stakeholders experience trust, satisfaction, and growth, which in turn enhances the college's external image. Conversely, when the soul is weak, issues such as academic inconsistency, conflict, low morale, and stress become visible in student performance, alumni disengagement, and negative societal impressions. Thus, perception serves as an external reflection of the internal soul, while Soul Analysis helps identify the root causes behind positive or negative perceptions.

This study explores the conceptual and measurable link between the internal soul and the external perception of a college. By examining core soul elements, Vision & Values, Academic Culture, Human Relations, Performance Orientation, and Institutional Integrity and analysing how these shape stakeholder perceptions, the research provides a deeper, systemic understanding of institutional behaviour and reputation. Through this approach, the study seeks to demonstrate that long-term institutional credibility and public trust cannot be built solely through branding or physical development, but must arise from the authenticity, coherence, and health of the institution's inner soul.

2 DEFINITIONS

2.1 Fuzzy Set

A set (crisp set) is a well-defined collection of distinct objects or elements that share a specified property or are grouped together for analytical purposes. A fuzzy set is a generalization of a classical (crisp) set in which an element's membership is not just 0 or 1, but can take any value between 0 and 1.

2.2 Soul Object (Soul Element or Internal Dimension)

A Soul object (or Soul element or Internal dimension) of a human being is an abstract linguistic unit such as a noun, verb, phrase, or declarative statement that represents a human quality, attribute, or value (e.g., mercy, ability to express ideas clearly).

When the study pertains to a product or institution, a Soul element denotes an abstract descriptor that encapsulates the core essence, characteristic, or identity-defining attribute of the product or institution (e.g., qualities that define a college's inherent character)

2.3 Soul Set

A Soul Set is a fuzzy set composed of Soul elements, each associated with a degree of judgment representing its intensity or relevance. It is formally expressed as

$H = \left\{\frac{x_1}{J_H(x_1)}, \frac{x_2}{J_H(x_2)}, \ldots\ldots, \frac{x_m}{J_H(x_m)}\right\}$ where x_i's are Soul objects and $J_H(x_i)$,the judgment of x_i. The soul set at a particular time t is also known as soul status at time t. The collection of all finite number of Soul elements considered by a finite judgment set is referred to as the *Soul Space*, denoted by X. A Soul Space comprises exclusively Soul elements. From the observable behaviour of an individual (or the functional performance of an institution) over time, Soul elements can be identified through the evaluations provided by a judging panel. The Soul Status of a Soul Space, evaluated at different points in time under a specified judgment set, is termed the Soul Process. It is denoted by $X(t)$ and is defined as $X(t) = \{X(t_1), X(t_2),\ldots, X(t_n)\}$

2.4 *m* dimensional Soul S

The m dimensional soul is defined as a function $f(x_1, x_2, \ldots, x_m)$.For example, the 5-dimensional soul of a college S can be conceptualized as a latent construct composed of several measurable internal dimensions.

Let the soul be defined as:

S = f (V, C, R, M, I), where V denotes Value Alignment, C denotes Academic Culture & Pedagogy, R denotes Relationship Climate (faculty–student–staff), M denotes Motivation & Performance Orientation and I denotes Institutional Integrity & Fairness.

The 10-dimensional soul of a teaching faculty can be modelled as

S = f (T_1,T_2,T_3, T_4,T_5,T_6, T_7,T_8,T_9,T_{10}) where T*i*, i =1,2,..,10 denotes Knowledge in the subject, Ability to express ideas clearly , Ability to give examples and analogies , Ability to arouse interest in the subject , Ability to attract the attention of students, General behaviour with students, Willingness to help and inspire students ,Punctuality in coming to the class, Returning valued answer papers and assignments, Preparation for the class and sincerity in taking class (professional ethics), Command of English/ Other (as per objective of the institution and subject handling) language.

2.5 Judgment of a Soul Element

It is a function which assigns to each Soul object x in Soul set H, a unique real number $J_H(x)$ in [0, 1]. The real numbers 0 and 1 stand for no judgment and full judgment respectively.

Example 1: Let the dimension of H be m, for a sample size of *l* number of judging panel members, number of measure levels *n*, weights preserving measure order w_i, the equation of judgment is defined as

$J_H(x_j) = \frac{\sum_{i=1}^{n} w_i k_{ij}}{lw}$ where w_i and k_{ij} are non-negative integers such that $\sum_{i=1}^{n} w_i$ = S ϵ N,

$0 \leq w_1 < w_2 < \ldots < w_n \leq$ s, $w = max w_i$, $\sum_{i=1}^{n} k_{ij} = l, \forall x_j \in H, i = 1,2,..,n$ *and* $j = 1,2,..,m.$

Example 2: $J_H(x_j) = \frac{Obtained\ score}{Total\ Score}$

2.6 Error in judgment

If the sample size is very small relative to the population size, or if the measurement order is not preserved, errors may arise in the judgment process. Such errors can be reduced by increasing the sample size and establishing an appropriate measurement hierarchy; that is, the assigned weights must follow an ordered structure in which elements associated with higher levels of importance based on the user's objectives receive correspondingly higher weights. The biasedness of judging panel also brings error in judgment.

3 IMPACTS OF THE PERCEPTION METRIC ON NIRF OVERALL SCORES

For this study, we examined a sample of 35 colleges from the 2024 NIRF rankings. Our analysis indicates that the Perception metric shows a stronger correlation with the total NIRF score.

Correlation Coefficient between Total Score and Score for Perception = 0.743459051.

To achieve a NIRF ranking within the top 100, the data indicates that a college's total score must exceed 54. Accordingly, we applied machine-learning–based regression models to theoretically predict the corresponding Perception score. Support vector regression showed more better result. The Python code and forecasting outputs are provided below.

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Sl. No:	Name of the College	City	State	Total Score	PR
1	Hindu College	Delhi	Delhi	74.47	95.21
2	Miranda House	Delhi	Delhi	73.22	86.65
3	Rama Krishna Mission Vivekananda Centenary College	Kolkata	West Bengal	72.97	38.75
4	St. Stephens's College	Delhi	Delhi	72.97	98.47
5	Atma Ram Sanatan Dharm College	New Delhi	Delhi	72.59	54.87
6	St. Xavier`s College	Kolkata	West Bengal	72.15	74.99
7	PSGR Krishnammal College for Women	Coimbatore	Tamil Nadu	72.09	74.81
8	Loyola College	Chennai	Tamil Nadu	70.74	99.7
9	Kirori Mal College	Delhi	Delhi	69.86	53.99
10	Lady Shri Ram College for Women	New Delhi	Delhi	69.49	100
11	PSG College of Arts and Science	Coimbatore	Tamil Nadu	69.06	86.79
12	Hans Raj College	Delhi	Delhi	68.76	74.09
13	Presidency College	Chennai	Tamil Nadu	68.36	76.06
14	Madras Christian College	Chennai	Tamil Nadu	67.41	74.99
15	Thiagarajar College	Madurai	Tamil Nadu	66.82	33.76
16	Deshbandhu College	New Delhi	Delhi	66.03	23.41
17	Ramakrishna Mission Vidyamandira	Howrah	West Bengal	65.51	35.18
18	Acharya Narendra Dev College	New Delhi	Delhi	64.73	34.71
19	Shri Ram College of Commerce	Delhi	Delhi	64.56	75.35
20	Rajagiri College of Social Sciences	Ernakulam	Kerala	64.22	16.73
21	Sri Venkateswara College	Delhi	Delhi	63.98	32.29
22	University College, Thiruvananthapuram	Thiruvananthapuram	Kerala	63.65	17.45
23	Lady Irwin College	Delhi	Delhi	63.27	47.99
24	Ramakrishna Mission Residential College	Kolkata	West Bengal	62.78	32.29
25	St. Joseph's College, Tiruchirappalli	Tiruchirappalli	Tamil Nadu	62.73	42.43
26	Deen Dayal Upadhyaya College	New Delhi	Delhi	62.47	42.43
27	Bhaskaracharya College of Applied Sciences	New Delhi	Delhi	61.55	18.16
28	V.O. Chidambaram College	Thoothukudi	Tamil Nadu	60.8	9.63
29	Maitreyi College	New Delhi	Delhi	59.6	12.13
30	Stella Maris College for Women	Chennai	Tamil Nadu	59.51	57.4
31	Gargi College	Delhi	Delhi	59.28	37.45
32	Midnapore College	Midnapore	West Bengal	58.91	24.03
33	Bishop Heber College	Tiruchirappalli	Tamil Nadu	58.61	40.02
34	Dyal Singh College	New Delhi	Delhi	58.55	16
35	Pachhunga University College	Aizawl	Mizoram	58.24	5.09

```
import numpy as np
import matplotlib.pyplot as plt
from sklearn.svm import SVR
from sklearn.preprocessing import StandardScaler

# Load data
data = np.array([
[74.47, 95.21], [73.22, 86.65], [72.97, 38.75], [72.97, 98.47], [72.59, 54.87],
[72.15, 74.99], [72.09, 74.81], [70.74, 99.7],  [69.86, 53.99], [69.49, 100],
[69.06, 86.79], [68.76, 74.09], [68.36, 76.06], [67.41, 74.99], [66.82, 33.76],
[66.03, 23.41], [65.51, 35.18], [64.73, 34.71], [64.56, 75.35], [64.22, 16.73],
[63.98, 32.29], [63.65, 17.45], [63.27, 47.99], [62.78, 32.29], [62.73, 42.43],
[62.47, 42.43], [61.55, 18.16], [60.8,  9.63],  [59.6, 12.13],  [59.51, 57.4],
[59.28, 37.45], [58.91, 24.03], [58.61, 40.02], [58.55, 16.0],  [58.24, 5.09]
])

# Split variables
X = data[:, 0].reshape(-1, 1)   # Score
y = data[:, 1]                  # Perception (PR)

# Scaling
```

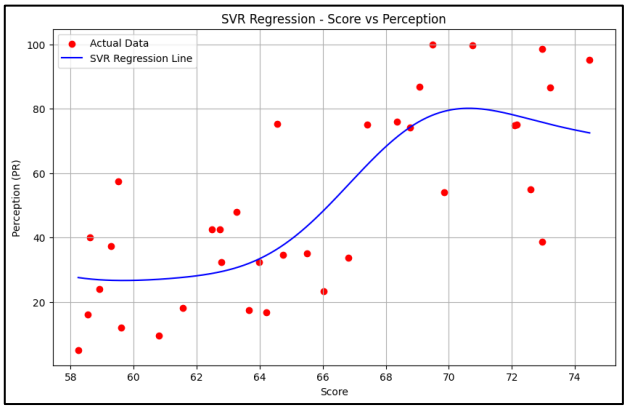
```
sc_X = StandardScaler()
sc_y = StandardScaler()
X_scaled = sc_X.fit_transform(X)
y_scaled = sc_y.fit_transform(y.reshape(-1, 1)).ravel()

# SVR model
svr = SVR(kernel='rbf')
svr.fit(X_scaled, y_scaled)

# Predict for plotting
X_range = np.linspace(X.min(), X.max(), 300).reshape(-1, 1)
X_range_scaled = sc_X.transform(X_range)
y_pred_scaled = svr.predict(X_range_scaled)
y_pred = sc_y.inverse_transform(y_pred_scaled.reshape(-1, 1))

# Plot
plt.figure(figsize=(10, 6))
plt.scatter(X, y, color='red', label='Actual Data')
plt.plot(X_range, y_pred, color='blue', label='SVR Regression Line')
plt.title('SVR Regression - Score vs Perception')
plt.xlabel('Score')
plt.ylabel('Perception (PR)')
plt.legend()
plt.grid(True)
plt.show()

# Forecast example
new_score = np.array([[54]])
pred = svr.predict(sc_X.transform(new_score))
predicted_pr = sc_y.inverse_transform(pred.reshape(1, -1))
print(f"Forecasted Perception for Score = 54: {predicted_pr[0][0]:.2f}")
```



Forecasted Perception for Score = 54 is 41.29.

Given that the theoretical perception score needed to attain a NIRF ranking within the top 100 is 41.29, this study subsequently focused on strategies to enhance perception, despite some observed data points deviating from the theoretical value.

The NIRF methodology includes two key components under perception: Peer Rating and Application-to-Seat Ratio , each carrying 50 marks. Peer Rating is collected through a time-bound survey involving a wide range of stakeholders, including academics, institution leaders, HR heads, employers, and members of government, private sector, NGOs, and funding agencies. Application-to-Seat Ratio is calculated using the total number of applications received (A) against the total sanctioned or approved intake (S) across all UG and PG programs, with the ratio. Each institution's score is then scaled using the maximum value of R among the set of institutions. Together, these measures reflect both external stakeholder perception and student demand for the institution.The application-to-seat ratio in NIRF rankings is influenced by several institutional tactics designed to project higher demand and improve perception. Many colleges aggressively encourage large numbers of applications through marketing, relaxed eligibility, simplified application processes, and multiple course options, creating an artificially high applicant pool. This high ratio is then used to signal popularity, competitiveness, and desirability, even though it may not reflect the actual quality of applicants or the institution. Some institutions also broaden admission criteria or highlight polished placement claims to attract more candidates, while niche or high-quality research institutes may appear to have low ratios simply due to their specialized nature and limited outreach. As a result, the

application-to-seat ratio becomes a potentially misleading metric, shaped more by recruitment strategies than true academic quality.

The practice of artificially inflating the application-to-seat ratio through aggressive marketing, relaxed eligibility criteria, simplified application processes, and the introduction of numerous course variants is both financially burdensome and ethically questionable. First, these tactics demand significant investment in advertising, promotional campaigns, and administrative processing of large volumes of applications, many of which come from students with no real intention or eligibility to join. This not only increases operational costs but diverts institutional resources away from core academic functions such as research, faculty development, and student support services. Second, from an ethical standpoint, artificially boosting application numbers misleads stakeholders by projecting a false sense of popularity, quality, and competitiveness. It manipulates student perception, potentially pressuring them to apply based on exaggerated demand rather than genuine academic merit. Such practices violate professional ethics because they prioritize ranking performance over transparency, integrity, and the welfare of applicants. Additionally, attracting unqualified or uninterested candidates wastes students' time and money, further reinforcing the unethical nature of the approach. Ultimately, these tactics compromise institutional credibility, distort ranking metrics, and undermine trust in higher education systems.

In the Indian higher-education context, the ratio of the number of applications received to the number of sanctioned seats (ASR) is commonly used as a quantitative indicator of institutional demand or public perception. However, this metric can become statistically skewed in environments where application volumes vary drastically across institutions. For instance, when an institution with 500 sanctioned seats receives 50,000 applications—a feasible scenario for certain high-visibility colleges, the ASR reaches a value of 100. Under such extreme conditions, the upper bound of the ratio becomes disproportionately large.

This leads to range compression for the majority of other institutions whose application-to-seat ratios fall within a much narrower band. When the scoring model allocates only a small fraction of points (e.g., 1 out of 50) for institutions that achieve even twice the number of applications relative to their sanctioned seats, the metric loses discriminatory power. As a consequence, the perceived merit of most institutions becomes insensitive to actual fluctuations in demand, thereby weakening the construct validity of this measure as an indicator of public perception.

Given these limitations, reliance on ASR as a key perception metric can systematically disadvantage institutions with lower but still reasonably strong demand and artificially magnify the visibility of outliers. Therefore, from a methodological standpoint, peer-rating mechanisms which capture expert evaluations of academic culture, governance, intellectual climate, and long-term credibility may provide a more reliable and less distortionary assessment of institutional perception.

ASR, as a demand-based metric, captures only the volume of applications and not the deeper dimensions of academic quality or institutional integrity, thereby favouring highly visible institutions while undervaluing colleges that maintain strong internal standards but attract fewer applicants. Because ASR often reflects external popularity rather than genuine institutional substance, it can distort perception scores and amplify outliers. In contrast, peer-rating mechanisms are better suited to evaluate aspects such as governance, academic culture, intellectual climate, and long-term credibility—qualities that arise from the internal "soul" of an institution. Since perception is ultimately shaped not by numerical demand but by lived experiences, trust, values, and the institution's ethical and academic character, it becomes essential to recognize how these soul elements meaningfully influence public perception.

4 IMPACT OF SOUL ELEMENTS ON COLLEGE PERCEPTION

Perception means how the college is viewed by students, parents, alumni, industry, faculty, and society. It includes Reputation, Trust, Public image, Academic credibility, Campus atmosphere, Graduate quality, Social media impressions and Rankings (like NIRF perception score). Perception is the external reflection, whereas soul is the internal reality.

4.1 Difference between soul & perception

Soul (Internal)	Perception (External)
Built slowly from values, culture & behaviour.	Formed quickly from experiences, results & public image
Hard to fake.	Can be influenced through marketing, results, branding
Exists even if no one sees it.	Exists only in the minds of people.
Determines real long-term success.	Determines short-term popularity
Psychological & cultural.	Social & reputational.

If the soul elements are strong then Students feel motivated, Faculty feel respected,Work culture feels meaningful, Conflicts are low, Outcomes are consistent, Alumni succeed.This naturally creates good public perception.

If the soul elements are weak then it creates Stress, Confusion, Low-quality teaching, Faculty–student conflicts and Inconsistent outcomes. Even with good buildings or marketing, the college appears weak to the outside world.

4.2 The Role of Soul Analysis in Enhancing College Perception

The Soul Analysis of a college focuses on understanding its internal identity its values, academic culture, human relations, and psychological energy. These inner elements determine the real strength of the institution. Perception, on the other hand, is the outer image formed in the minds of students, parents, employers, and society. When the inner soul is strong, perception becomes automatically positive. If the soul is weak, perception deteriorates regardless of infrastructure or marketing. Thus, Soul Analysis provides the foundational explanation for why a college is perceived the way it is.

Soul Analysis helps identify:

- Why students feel stressed or unsupported?
- Why faculty morale is low or high?

- Why academic results fluctuate?
- Why alumni stay connected or disconnected?
- Why perception is strong or weak?
- Why NIRF perception score is high or low?

It reveals the root cause, while perception shows the symptom.

5. MATHEMATICAL MODEL TO MEASURE THE SOUL OF A COLLEGE

The Soul of a College (S**)** can be conceptualized as a latent construct composed of several measurable internal dimensions. Let the 5-dimensional soul be defined as S = f (V, C, R, M, I), where V denotes Value Alignment, C denotes Academic Culture & Pedagogy, R denotes Relationship Climate (faculty–student–staff), M denotes Motivation & Performance Orientation and I denotes Institutional Integrity & Fairness.

These variables can be measured using Likert-scale items, psychometric surveys, behavioural indicators, and performance consistencies. This model enables empirical measurement of the institutional soul and its correlation with perception and performance outcomes

5.1 Weighted linear index Model

The study operationalizes the concept of a college's "soul" using a weighted linear index.

$S= w_1V+ w_2C+ w_3R+ w_4M+ w_5I$ subject to $\sum_{i=1}^{5} w_i = 1$, where w_i represents the weight assigned to each dimension (where V denotes Value Alignment, C denotes Academic Culture & Pedagogy, R denotes Relationship Climate (faculty–student–staff), M denotes Motivation & Performance Orientation and I denotes Institutional Integrity & Fairness), derived from methods such as Expert Judgment**,** Analytic Hierarchy Process (AHP)**,** or Exploratory Factor Analysis (EFA**)** loadings.

If all dimensions are assumed equally important, the model simplifies to: $S = \frac{V+C+R+M+I}{5}$

Each variable is standardized using min-max normalization $X_{norm} = \frac{X-X_{min}}{X_{max}-X_{min}}$

This scales all variables to the [0,1] range, producing a Soul Index that is comparable across colleges.

5.2 Psychometric Model

To empirically derive the soul construct, the following steps are applied:

5.2.1. Instrument Design

- A structured questionnaire of 20–40 items is developed.
- Each item maps to a specific dimension (e.g., 4–8 items per dimension) and is rated on a Likert scale.

5.2.2. Reliability Analysis

- Internal consistency is checked using:
- Cronbach's Alpha ($\alpha \geq 0.70$). $\alpha = \frac{k}{k-1}\left(1 - \frac{\sum \sigma_i^2}{\sigma_{Total}^2}\right)$, where k is the number of items, σ_i^2 variance of each item and σ_{Total}^2 is the variance of total score.
- Composite Reliability (CR ≥ 0.70)

5.2.3. Validity Testing

- Convergent validity: Average Variance Extracted (AVE ≥ 0.50)
- Discriminant validity: Fornell–Larcker criterion and Heterotrait-Monotrait ratio (HTMT)

5.2.4. Exploratory Factor Analysis (EFA)

- Factor loadings are identified to determine the contribution of each item.
- Factor-based dimension weights are generated.
- Soul Score is calculated as $S = \mu_1F_1+ \mu_2F_2+ \ldots\ldots\mu_nF_n$

5.2.5. Confirmatory Factor Analysis (CFA)

- CFA verifies the structural validity of the soul construct.
- Fit indices:
- CFI > 0.90
- RMSEA < 0.08
- SRMR < 0.08

5.3 Structural and Behavioural Component Model

The soul is further expressed through behavioural stability, integrating variations in key behavioural dimensions

$S_b = \alpha(1 - \sigma_C) + \beta(1 - \sigma_R) + \gamma P$, where σ_C is the variance in academic culture behaviour, σ_R is the variance in relational behaviour and P, the performance consistency (eg: stable CGPA or achievement trends). Lower variance indicates stronger internal soul.

The composite soul model combines both structural and behavioural components is

$$S_{Total} = \theta s + (1 - \theta)S_b$$

where θ balances the weight between structural and behavioural components.

5.4 Soul-Health Radar Model

In this model each dimension normalized between 0 and 1. The soul magnitude score similar to vector norms is calculated as $S = \sqrt{\frac{V^2+C^2+R^2+M^2+I^2}{5}}$

5.5 Perception–Soul Relationship Model

To assess the external impact of the soul on perception, the model assumes a linear relationship $P = k\ S + \epsilon$, where P is the college perception score (from stakeholder surveys), S is the soul index, k is influence coefficient and ϵ is the unexplained variance (e.g., branding, media, or subjective bias)

A statistically significant k ($p < 0.05$) would indicate that a stronger internal soul is predictive of higher external perception.

6 PERCEPTION MODELING THROUGH INSTITUTIONAL SOUL METRICS

Step 1: Start of Study
Step 2: Identify dimensions of Soul of College (eg:- Values Culture, Relationships, etc)
Step 3: Develop Survey item indicators (Likert Scale item for each dimension)
Step 4: Soul Data Collection from Students, Faculty, Staff , Alumni and A wide range of stakeholders.
Step 5: Reliability Testing (Cronbach α)
Step 6: Factor Analysis (Extract Dimensions, Compute Factor loadings)
Step 7: Compute Soul Score S
Step 8: Perception Data surveys from Alumni , Outsiders, A wide range of stakeholders including academics, institution leaders, HR heads, employers, and members of government, private sector, NGOs, and funding agencies.
Step 9: Correlation /Regression Analysis on Perception -Soul Relation
Step 10: Interpretation and Discussion of result. Check if the perception is improved to the fixed threshold value.
Step 11: If Yes, Go to Step 12. If No. Implement strategies to improve dimensions of Soul. Allow a time period to get the output, Go to Step 3.
Step 12: Modify the threshold to get better perception score. Change dimensions of Soul. Implement the strategies to improve the considering soul dimensions. Allow a time period to get the output. Go to step 3.
Step 13: If the perception score is 100%, go to Step 14. If the perception score is less than 100%. Go to step 12.
Step 14: Change the dimensions of the Soul and go to step 3.
Step 15: If all dimensions under objective of the authority is checked , go to step 16. If Not, go to step 14.
Step 16: Execute this algorithm step 2 to step 15 in every fixed time period.
Step 17: Stop.

CONCLUSION

The exploration of Soul Analysis through a mathematical lens marks an important step toward formalising the deeper dimensions of human experience. By introducing the concept of Soul Sets and constructing a mathematical model around them, this paper demonstrates that even seemingly abstract aspects of identity, values, emotions, and meaning-making can be represented, analysed, and interpreted systematically. The mathematical analysis presented here offers a structured way to examine inner conflicts, aspirations, and behavioural patterns, showing how Soul Sets can be applied to understand real-life psychological problems.

This study highlights the critical role of a college's internal soul in shaping its external perception. With the theoretical perception score of 41.29 identified as the threshold for achieving a top-100 NIRF ranking, the study provides actionable insights focusing on internal alignment, culture, relationships, and performance consistency can systematically elevate both the college's soul and its external perception, ensuring sustainable reputation and long-term success.

While perception reflects how students, parents, faculty, alumni, industry, and society view the institution, it is ultimately an outcome of the college's internal values, culture, relationships, motivation, and integrity. The analysis demonstrates that the NIRF perception score representing the external image can be predicted and understood through the systematic measurement of these internal elements.

By operationalizing the soul as a weighted linear index and combining psychometric and behavioural indicators, the study provides a robust framework to quantify the internal strengths of a college. The composite model, integrating structural and behavioural components, shows that institutions with strong values, coherent academic culture, stable relationships, motivation-driven performance, and consistent integrity naturally cultivate positive perception. Conversely, weaknesses in these internal dimensions lead to stress, inconsistent outcomes, and a weaker public image, regardless of external marketing or infrastructure.

The findings suggest that improving the internal soul is a strategic lever for enhancing perception. The study also establishes a significant linear relationship between the soul index and perception scores, confirming that perception is not merely a reflection of branding or visibility, but a consequence of authentic institutional strength.

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