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The Dilemma of Cross-Subsidization in Rural Degree Colleges: Assessing the Impact of Non-Salary Grant Cessation on HEIS in Maharashtra

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Abstract

The rural Maharashtra system of higher education, especially in the Konkan region is in a crisis of an unparalleled financial crisis because the state government has stopped non-salary grants. In this paper, the financial activity of 20 Higher Education Institutions (HEIs) in the Ratnagiri and Sindhudurg districts are analyzed in terms of the flow of funds between income heads and expenditure heads. The empirical test of the study is the Internal Cross-Subsidization phenomenon when institutions use excess funds obtained through student-oriented heads such as 'Examination Fees' (Ratio 0.48:1), and 'Laboratory Fees' (Ratio 0.38:1) to compensate structural deficits in operational heads such as 'Utility Expenses' (Ratio 1.22:1). Applying cash flow ratio analysis, the analysis confirms the rejection of the alternative hypothesis (H 1) that outflow heads and the sources of inflows are the same. The paper ends with the major policy recommendations, including the fact that the university fee system should be restructured, and need-based block grants should be offered to rural colleges to make sure the institutions are sustainable over the long term.

Keywords: Cross-Subsidization, Non-Salary Grants, Financing of Higher Education, Budgetary Deficit, Rural HEIs, and Konkan Region.

Introduction

1. Significance of Non-Salary Grants

Colleges aided by the state have been invaluable in the increasing access of the higher education system in Maharashtra rural areas. In the past the state government financed these institutions not only through paying the salary bill of the staff but also through a Non-Salary grant that was used to pay the daily administrative and running expenses. This grant was customarily given as a constant percentage of the total salary bill. It was the main financial support for the basic institutional infrastructure, paying bills like electricity and water, leasing lines (telephones and internet), property taxes, laboratory supplies (chemicals/glassware), library publications and daily stationery.

2. The Policy Shift and Financial Void

Recently there was a strategic change of policy in the Government of Maharashtra and non-salary grants to aided colleges were totally discontinued. Although the state is still in charge of salaries, the administration and the operational funds needed to operate the college clockwork machinery went down to zero overnight. This new policy has produced an unprecedented financial impasse in institutions in rural and remote regions, and it is now incredibly hard to keep up physical infrastructure and basic operations due to principals and local management bodies.

3. Context of Ratnagiri and Sindhudurg Districts

This research paper specifically deals with the Ratnagiri and Sindhudurg districts of South Konkan, Maharashtra. Geographically, this area is marked by hilly landscapes, a scattered population, and a large susceptibility to natural disturbances such as heavy downfalls of the monsoons. Degree colleges here are crippled by pitifully low numbers of students as compared to big cities such as Mumbai or Pune. Due to poor student strength, the internal institutional revenue, as represented by normal student fees, is automatically low. This has resulted in the hardest hit of these rural institutions by the withdrawal of the non-salary grants.

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Research Objectives and Hypotheses

1. Research Objectives

- To examine budgetary deficits within rural degree colleges in Maharashtra in the wake of the stoppage of non-salary grants by the government.
- To test the precise difference between cash inflows and cash outflows in different parts of fees in 20 select HEIs in Ratnagiri and Sindhudurg districts.
- To explore the mechanism of operation and scope of Internal Cross-Subsidization used by college administrations to maintain the basic institutional utilities.
- To recommend important policy interventions to reform institutional fee structures and state grant systems in order to achieve financial sustainability.

2. Research Hypotheses

Null Hypothesis (H₀): The heads of cash outflows do not necessarily match with sources of cash inflows in higher education institutions.

Alternative Hypothesis (H₁): The heads of cash outflows perfectly match with sources of cash inflows in higher education institutions.

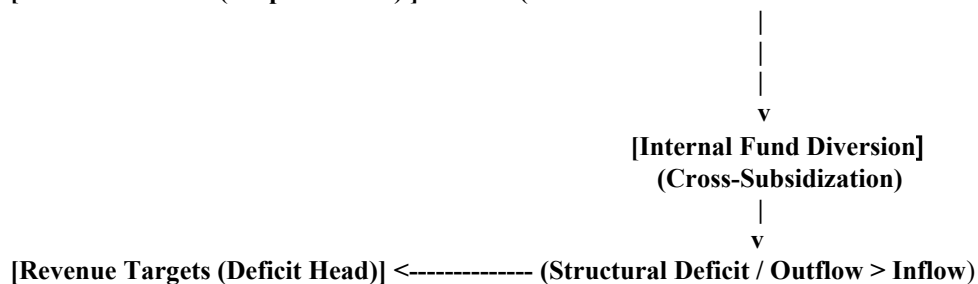
Review of Literature

The financial aspects of institutional grant dynamics and financial management of higher education have been studied extensively on both national and international levels:

In his comprehensive analysis of higher education financing in India, Tilak (1993) argued that persistent dependence on public funding, coupled with growing resource constraints, and compelled higher education institutions to explore

This idea acquires a delicate and multi-layered role in the system of financing higher education:

[Revenue Sources (Surplus Heads)] -----> (Extra Fund Reserves / Outflow < Inflow)



- Student-Centric Development vs. Operational Survival Institutions receives certain fees in different individual elements (e.g., Exam Fees, Library Fees, Lab Fees). The main targeted goal of such fee collections is to promote targeted academic enhancement of students and avoid wastage of resources in the organization.
- [1] The Operational Dilemma: After complete withdrawal of non-salary grants, college

alternative sources of finance, including student fees and other non-governmental revenues. He cautioned that inadequate public investment could undermine institutional quality, equity, and the long-term sustainability of higher education.

Johnstone (2006) presented the theory of cost-shifting and cross-subsidization as necessary adjustments in the organization in his model of Higher Education Finance. The recession of state grants requires institutions to transfer surpluses within the institutions, a problem that acts with a greater degree of acuity in less densely populated regions that lack a business source of income.

Massy (1996) argued that the rigidity of institutional operating costs, together with limited flexibility in revenue generation, creates continuing budgetary pressures for higher education institutions..

As pointed out by Chattopadhyay (2007), diversion of funds raised specifically to fund student-focused enrichment to meet minimum utility requirements in an institution causes institutional stagnation, under-investment in academic facilities and wastage of resources at a macro level.

Theoretical Framework: Understanding Cross-Subsidization

'Internal Cross-Subsidization' is fundamentally a concept derived from commercial economics. It is a practice in an organization whereby a diverse organization uses the excess revenues earned by one of its profitable businesses to meet the losses or structural losses of another business that is not performing well.

principals have no valid operating budget to cover their immediate electricity bills, clean water or even basic internet lease lines. The inability to pay these utility bills will lead to immediate disconnection of lines, which has the direct negative effect of damaging the performance of students in academic institutions.

- The Balancing Act: College administrators have to play the game of financial manoeuvres to prevent institutional closure and safeguard

students. They internally redirect the accrued excess in categories in which direct expenditures are much below receivable revenues (e.g., Examination or Laboratory fees) to a greatly underfunded category of baseline operating, e.g. Utility Fees.

- **Research Significance:** It is not a case of financial misappropriation, but a defensive managerial response aimed at ensuring that rural schools stay afloat. But, in conventional audit and standard reporting, it essentially disfigures the optimal head-wise balance - the empirical heart of this research paper.

Empirical Evidence and Data Analysis

- To test the main null hypothesis (H_0) an empirical ratio test of 7 major financial fee elements in 20 sample colleges (C 1 to C 20) in the Ratnagiri and Sindhudurg districts over a period of 5 years and a total of 100 audited financial statements were conducted:
- **Analytical Evaluation Metric:** The ratio is mathematically expressed in terms of Outflow: Inflow. A perfect match would be 1.00:1.00 which is a 'Perfect Match' meaning that the collection of fees are the same as the direct utilization. A ratio exceeding 1.00 means Structural Deficit and a ratio less than 1.00 implies Financial Surplus.

1. Consolidated Financial Statement Table

Sr. No	HEAD	Total Income / Inflow	Total Income / Outflow	Difference (Outflow – Inflow)	RATIO	REMARK
1	EXAM FEE	79852708	38471491	-41381217	0.48: 1	MISSMATCH
2	LIBRARY FEE	16516847	10274688	-6242159	0.62: 1	MISSMATCH
3	SPORTS FEE	18105095	11079936	-7025159	0.61: 1	MISSMATCH
4	UTILITY	12091696	14751690	2659994	1.22: 1	MISSMATCH
5	DEVLOPMENT	25841781	18603709	-7238072	0.72: 1	MISSMATCH
6	CULTURAL	10168647	8870340	-1298307	0.87: 1	MISSMATCH
7	Laboratory	46517073	17788177	-28728896	0.38: 1	MISSMATCH

2. Head-wise Analytical Findings

A) **Utility Fees:** The Core Structural Deficit (The Receiver)

Analysis: Utility Fee head has a consolidated ratio of 1.22:1. This shows that with every INR 1.00 that is being collected in terms of students under utilities, colleges are incurring a cost of INR 1.22 as far as operation costs are concerned. In the 20 institutions, where there is a net deficit of INR 26,59,994.

Implication: The non-salary grant block has compelled colleges to run basic infrastructure at a loss rate that they are unable to cover the cost of power and technical connectivity with their allotted component of the fee.

B) **Examination and Laboratory Fees:** The Structural Pillars (The Givers)

Examination Fee: This head has a limited ratio of 0.48: 1. The vast inflow collection is deployed to direct testing operations only 48% of the massive inflows, creating a liquid surplus of INR 4.13 Crores.

Laboratory Fee: This head has the lowest ratio of individual utilization 0.38:1. Only INR 1.77 Crores of the total INR 4.65 Crores collected is spent on basic lab inventory and this causes an enormous surplus of INR 2.87 Crores.

Conclusion: The mathematical empirical statistics shows that there is cross-subsidization. The operational losses on basic utilities (1.22) are covered and sustained at the expense of the surplus

cash accounts of Examination (0.48) and Laboratory (0.38) accounts.

3. Hypothesis Testing Conclusion

The empirical ratio analysis is a clear indication that there is no perfect, unviolated 1:1 ratio anywhere in the audited components. There are high levels of component variance that are structurally evident in all institutions. The other hypothesis (H_1) that claims perfect alignment is strongly refuted because of the absence of empirical evidence. As a result, the Null Hypothesis (H_0) is accepted in all aspects and confirms the fact that cash outflow heads do not always coincide with the cash sources in institutions of higher learning.

Suggestions

In order to meet the financial weakness of rural degree colleges in South Konkan and safeguard the development of students, the following strategic policy programs can be implemented:

1. Restructuring Location-Specific Fee Frameworks

Association with universities (e.g., University of Mumbai) will need to abandon cross-state, uniform fee slabs. The geographic facts of Konkan region- high internet line maintenance and heavy monsoon deterioration cost- requires an increase in allocation of Utility Fee and Development Fee. The rebalancing of these parameters on the university level will be useful in

bringing the inflows within the university closer to the real outflows.

2. Introduction of Need-Based 'Infrastructure Block Grants'

The state government would need to re-think the complete disallowance of non-salary grants to institutions serving in rural or mountainous or economically backward groupings. The state should implement a special Minimum Infrastructure Block Grant as opposed to historic salary-based systems. Such an institutional transfer needs to be legally set aside to settle electricity bills, regulatory safety inspections, and minimum internet operation expenses.

3. Accounting and Auditing Relaxation

The Directorate of Higher Education (DHE) ought to establish the frame of compliance flexibility when the state audits. In auditing rural institutions, auditors should clearly distinguish between systemic misappropriation of funds and positive Internal Cross-Subsidization that is being done to maintain institutional functionality. Granting conditional and legitimate transfer permission will reduce the paralysis in administration.

Conclusion

This research paper highlights the fact that the withdrawal of the non-salary grants by the state government has plunged the rural degree colleges in Maharashtra into a dire financial situation. In order to offset limited student enrolment and lost public funds, HEIs in Ratnagiri and Sindhudurg are turning to an uncoded Internal Cross-Subsidization Model. The surplus of examination and laboratory accounts is methodically redone to meet structural shortcomings in base utilities. This may provide a viable cushion to the short-term institutional survival yet the long-term academic excellence may be compromised. Emergency, joint policy amendments at the state level and affiliating universities are obligatory in order to maintain education facilities in the rural areas.

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Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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