N. V. Varghese
Jinusha Panigrahi *Editors*

Financing of Higher Education

Traditional Approaches and Innovative Strategies

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Preface

Who should finance higher education—the government, the corporate sector or the household sector? The traditional argument was in favour of public funding of higher education and was based on economic rationality. The rate of returns analysis justified public support and private investment in higher education. Some others felt that the private returns to investment in education are substantial and argued for increased investment by the private sector and households in higher education. Others supported public intervention and financing of higher education based on concerns of social and regional equity, while the economic argument was for a large share of public investment at lower levels of economic development and a reduced level of public investment at higher levels of economic development.

When the higher education sector was small in size, it attracted mostly the elites. When massification became a reality, the disadvantaged started enrolling in large numbers. Unfortunately, the state support to education during this period did not keep pace with the increase in enrolment. Many countries across the world have explored alternatives to public financing and came out with innovative methods to finance their higher education sector. These innovative measures included cost saving measures, cost sharing measures and income generating measures. Most higher education institutions in the world follow any one or a combination of these measures to finance higher education.

The present volume on *Financing of Higher Education: Traditional Approaches and Innovative Strategies* is based on selected papers presented at an international seminar on the theme organised by the Centre for Policy Research in Higher Education of the National Institute of Educational Planning and Administration. The topics covered in the volume include aspects associated with mode of financing of higher education, Russian transition in financing, public–private partnerships, entrepreneurial universities, financing of public higher education institutions, public financing of private education, innovative and sustainable approach in financing of private higher education, costs of private higher education, external financing of higher education and student financing of higher education.

We are grateful to the authors of various chapters of this volume for their incredible contributions. I take this opportunity to place on record my profound appreciation for the efforts made by my colleague at CPRHE, NIEPA, Dr. Jinusha Panigrahi, in bringing out this volume.

New Delhi, India N. V. Varghese

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We wish to put on record our gratitude for the Ministry of Human Resource Development (MHRD) and the Ministry of External Affairs for their help in the facilitation of visas for the international authors to attend the seminar.

The volume is organised into chapters written by renowned researchers and policy makers in higher education. They contributed to the deliberations and discussions in the seminar and help shaping the chapters by other peers and finally submitted a revised version of their chapters after through reviews. The valuable contributions of all the authors are gratefully acknowledged.

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Chawla diligently worked on the data and referencing of the volume. We gratefully acknowledge their contribution at different stages in the preparation of this edited volume.

N. V. Varghese
Jinusha Panigrahi

Contents

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About the Editors

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Abbreviations

A	Actual
AARDO	African-Asian Rural Development Organization
ABE	Analysis of Budgeted Expenditure on Education
ACCRA	American Chamber of Commerce Research Association
ACEEU	Accreditation Council for Entrepreneurial and Engaged Universities
ADB	Asian Development Bank
AFRC	Admission and Fee Regulatory Committee
AICTE	All India Council for Technical Education
AISHE	All India Survey on Higher Education
AIU	Association of Indian Universities
APSCHE	Andhra Pradesh State Council of Higher Education
ASEAN	Association of South East Asian Nations
B. Pharma	Bachelor of Pharmacy
B.A.	Bachelor of Arts
B.Ed.	Bachelor of Education
B.Sc	Bachelor of Science
B.Voc.	Bachelor of Vocational Education
BBA	Bachelor of Business Administration
BC	Backward Classes
BCA	Bachelor of Computer Applications
BCI	Bar Council of India
BDS	Bachelor of Dental Surgery
BE	Budget Estimates
BITS	Birla Institute of Technology and Science
BOP	Balance of Payment
BPL	Below Poverty Line
BRICS	Brazil, Russia, India, China and South Africa
BUYS	Big UK Yoga Survey
CAGR	Compound Annual Growth Rate
CAS	Central Admission System

CAS	Centre for Advanced Study
CBSE	Central Board of Secondary Education
CEC	Consortium for Educational Communication
CEO	Chief Education Officer
CEPs	Certified Education Planner
CII	Confederation of Indian Industry
COA	Council of Architecture
COGS	Cost of Goods Sold
COL	Commonwealth of Learning
CPF	Contributory Provident Fund
CPGRAMS	Centralized Public Grievance Redress and Monitoring System
CPRHE	Centre for Policy Research in Higher Education
CRISP	Central for Research and Industrial Staff Performance
CSE	Centre for Science and Environment
CSIR	Council of Scientific and Industrial Research
CSR	Corporate Social Responsibility
CSS	Centrally Sponsored Schemes
CVL	CDSL Ventures Limited
DAC	Development Assistance Committee
DBT	Direct Benefit Transfer
DD-SS	Demand–Supply
DDU KAUSHAL	Deen Dayal Upadhyay Knowledge Acquisition and Upgradation of Skilled Human Abilities and Livelihood
DFID	Department for International Development
DGET	Directorate General of Employment and Training
DHE	Department of Higher Education
DIET	District Institute for Education and Training
DIPP	Department of Industrial Policy and Promotion
DoHE	Directorate of Higher Education
DP	Development Partners
DPA	Development Partnership Administration
DRS	Departmental Research Support
DSA	Department of Special Assistance
DTH	Direct-To-Home
EAF	Educational Administration and Foundations
EAMCET	Engineering Agricultural and Medical Common Entrance Test
EB	Economically Backward
EBC	Economically Backward Communities
EC	European Commission
ECE	Electronics and Communication Engineering
EE	Elementary Education
EEPs	Educational Exchange Programmes
EFA	Education for All
ELCT	Evangelical Lutheran Church of Tanzania
EOC	Equal Opportunity Cell

ERIC	Educational Research and Innovation Complex
EU	European Union
EUA	European Universities Association
EXIM	Export–Import Bank of India
FDI	Foreign Direct Investment
FRS	Fee Reimbursement Scheme
FYP	Five-Year Plan
GATE	Graduate Aptitude Test in Engineering
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariff and Trade
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
GER	Gross Enrolment Rate
GERA	Global Entrepreneurship Research Association
GIC	General Insurance Corporation
GMR	Global Monitoring Report
GOAP	Government of Andhra Pradesh
GoI	Government of India
GoO	Government of Odisha
GPF	General Provident Fund
GSDP	Gross State Domestic Product
HE	Higher Education
HECS	Higher Education Contribution Scheme
HEFA	Higher Education Financing Agency
HEFA	Higher Education Funding Agency
HEFCE	Higher Education Funding Council of England
HEIs	Higher Education Institutions
HEPSN	Higher Education for Persons with Special Needs
HESLB	Higher Education Students Loans Board
HMCT	Hotel Management and Catering Technology
HRD	Human Resource Development
IAGs	Internationally Agreed Goals
IBA	Indian Bank's Association
IBRD	International Bank for Reconstruction and Development
IBSA	India, Brazil and South Africa
IBTSEA	International Baptist Theological College of East and Southern Africa
ICL	Income Contingent Loan
ICSSR	Indian Council of Social Science Research
ICT	Information and Communications Technology
IDA	International Development Association
IFI	International Financial Institution
IGNOU	Indira Gandhi National Open University
IIEP	International Institute for Educational Planning
IIIT	Indian Institutes of Information Technology

IIM	Indian Institutes of Management
IISc	Indian Institute of Science
IISERs	Indian Institutes of Science Education and Research
IIT	Indian Institutes of Technology
IMF	International Monetary Fund
INFLIBNET	Information and Library Network
IO	International Organisations
IT	Information Technology
ITC	Information and Communications Technology
ITEC	Indian Technical and Economic Cooperation Scheme
ITI	Industrial Training Institute
ITP	Investment and Technology Promotion
J&K	Jammu and Kashmir
JICA	Japan International Cooperation Agency
JNV	Jawahar Navodaya Vidyalayas
JRF	Junior Research Fellowship
KPIs	Key Performance Indicators
LIC	Life Insurance Corporation
M. Phil.	Master of Philosophy
M.A.	Master of Arts
M.E.	Master of Engineering
M.Ed.	Master of Education
M.P.	Madhya Pradesh
M.Pharm	Master of Pharmacy
M.Tech.	Master of Technology
MBA	Master of Business Administration
MBBS	Bachelor of Medicine, Bachelor of Surgery
MCA	Master of Computer Applications
MCI	Medical Council of India
MDGs	Millennium Development Goals
MEA	Ministry of External Affairs
MENA	Middle East and North Africa
MHRD	Ministry of Human Resource Development
MIT	Massachusetts Institute of Technology
MOOC	Massive Open Online Course
MoU	Memorandum of Understanding
MPCE	Monthly Per-Capita Consumption Expenditure
MS	Microsoft
NAAC	National Assessment and Accreditation Council
NACUBO	National Association of College and University Business Officers
NAD	National Academic Depository
NBA	National Board of Accreditation
NBFC	Non-Banking Financial Company
NCERT	National Council of Educational Research and Training

NCES	National Center for Education Statistics
NCI	Nursing Council of India
NCR	National Capital Region
NCSA	National Centre for Supercomputing Applications
NDML	NSDL Database Management Limited
NEET	National Eligibility cum Entrance Test
NEP	New Economic Policy
NER	North Eastern Region
NET	National Eligibility Test
NGO	Non-Governmental Organisation
NIEPA	National Institute of Educational Planning and Administration
NIIT	National Institute of Information Technology
NIOS	National Institute of Open Schooling
NIT	National Institutes of Technology
NITIE	National Institute of Industrial Engineering
NITTTR	National Institute of Technical Teachers' Training and Research
NMEICT	National Mission on Education through Information and Communication Technology
NOSs	National Occupational Standards
NPA	Non-Performing Assets
NPE	National Policy on Education
NPM	New Public Management
NPTEL	National Programme on Technology Enhanced Learning
NSDC	National Skills Development Corporation
NSQF	National Skills Qualifications Framework
NSS	National Sample Survey
NSSO	National Sample Survey Office
NUEPA	National University of Educational Planning and Administration
OBC	Other Backward Class
ODA	Official Development Assistance
ODL	Open and Distance Learning
OECD	Organisation for Economic Cooperation and Development
OER	Open Educational Resource
OP	Open Category
OPCS	Operations Policy and Country Services
PBAS-API	Performance-Based Appraisal System-Academic Performance Indicators
PCI	Pharmacy Council of India
PG	Post-Graduation
PG	Public Grievances
Ph.D.	Doctor of Philosophy
PM	Prime Minister
PMKVY	Pradhan Mantri Kaushal Vikas Yojna
PPP	Public–Private Partnership

PSU	Public Sector Undertaking
QPs	Qualification Packs
R&D	Research and Development
R.E	Revised Estimates
RBA	Resident of Backward Area
RBI	Reserve Bank of India
REC	Regional Economic Communities
RFSMS	Research Fellowships in Sciences for Meritorious Students
RKMVU	Ramakrishna Mission Vivekananda University
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RPL	Recognition of Prior Learning
RTI	Research Triangle International
RUSA	Rashtriya Uchhtar Shiksha Abhiyan
SAARC	South Asian Association for Regional Cooperation
SADC	Southern African Development Community
SAP	Structural Adjustment Policy
SC	Schedule Caste
SCAAP	Special Commonwealth African Assistance Program
SEBC	Socially and Economically Backward Classes
SEED	Society for Education and Economic Development
SEETF	South-South Experience Exchange Trust Fund
SIDBI	Small Industries Development Bank of India
SMSC	Strategic Manufacturing Skill Council
SPV	Special Purpose Vehicle
SSA	Sarva Shiksha Abhiyan
SSA	Sub-Saharan Africa
SSCs	Sector Skill Councils
SSSJK	Special Scholarship Scheme Jammu and Kashmir
ST	Schedule Tribe
SWAP	Sector-Wide Approach
SWAYAM	Study Webs of Active Learning for Young Aspiring Minds
TANLET	Tanzania Legal Education Trust
TCS	Technical Cooperation Scheme
TCU	Tanzania Commission for Universities
TDC	Triangular Development Cooperation
TEA	Tanzania Education Authority
TEPSE	Teacher Preparation in Special Education
TEQIP	Technical Education Quality Improvement Programme
TSCHE	Telangana State Council of Higher Education
TVET	Technical and Vocational Education and Training
TZS	Tanzanian Shilling
U.P.	Uttar Pradesh
UAI	University Autonomy Indicator
UCL	University College London
UCLC	University College London Consultants

UEE	Universalization of Elementary Education
UG	Undergraduate
UGC	University Grants Commission
UIS	UNESCO Institute for Statistics
UK	United Kingdom
UKIERI	United Kingdom-India Education and Research Initiative
UNCST	Udaynath College of Science and Technology
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGA	United Nations General Assembly
UNICEF	United Nations International Children's Emergency Fund
UNPF	United Nations Population Fund
UPE	University with Potential for Excellence
US	United States
USA	United States of America
USAID	United States Agency for International Development
USD	United States Dollar
USIU	United States International University
USP	Unique Selling Proposition
USSR	Union of Soviet Socialist Republics
UU	Utkal University
WB	World Bank
WBI	World Bank Institute
WTO	World Trade Organization

List of Figures

List of Tables

Chapter 1
Innovations in Financing of Higher Education: An Overview

N. V. Varghese and Jinusha Panigrahi

Abstract The economic rationality and the social equity concerns form the basis for continued public investment in higher education. However, empirical evidence globally and in India shows that the public financial support could not keep pace with the increasing social demand for higher education. Most countries adopted two types of market-friendly reforms, namely the privatization of public institutions and promotion of private higher education. The former implied public ownership of institutions relying on market principles in their operation, and the latter implied promotion of non-state actors in the ownership, financing and management of institutions. These two reform measures remained basic to all forms of new strategies and innovative measures in financing of higher education. The implementation of these reforms involved introduction of cost-saving strategies, cost-sharing measures and income generating activities at the institutional level. While these innovations succeeded in transferring the financial burden of pursuing higher education from public to the private hands, many households started relying on student loans to finance higher education. This chapter shows that there is a need for student support initiatives to promote equity and social justice in higher education.

Keywords Innovative measures · Public funding · Privatization · Private sector · Cost saving · Cost sharing · Income generating · External financing · Education loans · Student support

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Increasing Cost and Declining Public Funding of Higher Education

There is a worldwide increase in the cost of higher education. The sharing of the cost of higher education between public and private sources varies among countries. In most countries, there are moves to transfer the increasing cost of pursuing higher education from public to private sources. In this sense, the rising cost of higher education and the reliance on non-government sources of funding characterize higher education development in the recent past. A typical dilemma facing the youth population is the compulsions to pursue higher studies on the one hand and the high private cost of pursuing higher education on the other. No doubt the increase in the cost of attending college has been exceeding the rate of inflation and the rate of increase of family income. For example, the tuition fee for a public four year of education in the USA was $358 per semester in 1970. It should have been USD 2052/ in 2010 if inflation is taken into account. However, the average tuition fee in public colleges grew three times that amount to USD 6695 (AIR, 2012).

The increasing cost of higher education has two dimensions. First, the cost escalation due to the increase in the salaries to higher education employees (including teachers) and investments in infrastructure to provide higher education. Second, a transfer of incidence of this increased cost from public authorities to households. The state support to education has not kept pace with the increasing social demand for higher education, and it has resulted in an increasing financial burden of the households. It is estimated that in some countries such as the USA, the cut in subsidies to higher education was to the tune of USD 7/Billion between 2008 and 2018 (Johnson, 2019). The decline in subsidies raises issues related to equity in access to higher education and continued public funding of higher education.

The argument in favour of public funding of higher education is based on two sets of arguments. The first set of arguments follows from the viewpoint of an economic rationality and is justified by the framework of the rate of returns to investment in higher education. Till the 1990s, it was believed that the marginal rate of returns was inversely related to the levels of education. Accordingly, primary education was perceived to bring higher returns, and hence, it was prioritized for public investment over other levels of education. International agencies led by the World Bank played an important role in diverting allocations from higher to primary education especially under the structural adjustment regime (World bank, 1986). However, in the 1990s, it was found that returns to investment in higher education have been increasing, and it surpassed other levels of education (World Bank, 1994). Therefore, the economic argument in the later years supported increased public investment in higher education. While rate of returns framework was relied on to legitimize diversion of public resources from higher to primary education, surprisingly, the same argument was not relied on to increase allocations to higher education when returns to investment in higher education surpassed other levels of education.

The second premise for continued public investment stems from the social equity argument. Higher education degrees are necessary entry requirements to the employment market. If access to higher education is not equally distributed, it can become a source of economic inequalities in the next generation. Many countries follow equity policies to ensure that opportunities for pursuing higher education are more equally distributed. The reservation policies or quota system in admissions in favour of the disadvantaged groups is an example of the equity concerns. Although the economists (Musgrave, 1969) argued for higher levels of public investment at lower levels of economic development and lower levels of public investment at higher levels of economic development when private expenditure will be able to complement, it needs to be examined in the context of targeting of the public investments.

It is interesting to note that the trends in public expenditure on higher education did not always follow what was argued by the economists. The empirical evidence shows three patterns in financing higher education: (a) increasing share of education budgets and an increased share of higher education in the education budgets; (b) increasing share of education budgets and a declining share of higher education budgets; and (c) a decline in the share of education budgets and higher education budgets (Varghese, 2002). The conditionality under structural adjustment loans compelled many developing countries to divert public resources from higher to primary education. Since developed countries were not recipients of structural adjustment loans, the decline in allocations to higher education happened more in the developing world. Thus, contrary to the economic argument, the share of higher education in the education budgets increased in the developed countries and that in the developing countries declined in the end decades of the past century.

Another interesting trend by the close of the past century is the convergence in viewpoints for reduced public funding of higher education both in the developed and developing countries. The fast-track initiatives and external funding conditionality ensured that a minimum of 50% of the public expenditure on education to be invested at the basic education level. In the absence of public funding not forthcoming, most countries adopted market-friendly reforms to meet the growing demand for an expanding higher education system.

Innovations in Financing Higher Education Sector

Few countries continued to rely on public funding of higher education. For example, the Scandinavian countries continued to subsidize higher education. More than 80% of funding for colleges and universities in Sweden comes from the government, and the Norwegian public universities charge no tuition fees. However, this trend is confined to limited number of countries. In most countries, there were reductions in the subsidies to higher education, and in other countries, the sector moved to a situation of full pricing.

Most countries adopted two forms of reforms in financing higher education, namely privatization of public institutions and promotion of private higher education

(Varghese, 2004). The privatization implied public ownership of institutions accompanied by market principles in their operation. The promotion of the private sector in higher education implied non-state actors both in the ownership, financing and management of institutions. These two reform measures remained basic to all forms of new strategies and innovative measures in financing of higher education.

One of the surprising effects of these reform measures was that, contrary to the general presumption, the developed market economies relied on public institutions to expand and massify higher education while the less developed market economies relied on market forces to expand higher education (Varghese, 2015). The OECD countries relied more on public institutions and on privatization measures than private higher education institutions to massify, and later to universalize, higher education. The less developed market economies promoted private higher education institutions to meet the social demand for higher education and to massify the sector. The experience in Latin America, Asia and Africa clearly testifies this trend. In India, the surge in private sector in higher education has been very high, and the private institutions account for more than 75% of the total higher education institutions in the country. Let us examine some of these measures more closely.

Cost-Saving Measures

The cost-saving measures adopted by various institutions and countries include the areas of purchase of books, laboratory equipments and chemicals, seminar conferences and other travels, delaying of capital expenditure projects, reducing benefits to employees and pensioners and a curb on the recruitment and appointment of administrative staff and teaching staff. In developing countries like India, such cost-saving measures have been adopted by majority of public higher education institutions as a result of relative decline in funding by government (Panigrahi, 2018).

Many universities have reduced their involvement in organizing seminars and conferences and also put restrictions on faculty members travelling to participate in the conferences. In some instances, higher education institutions have reduced the benefits such as pension benefits, medical reimbursement and support for education of employees' children.

Another form of cost saving is through outsourcing of services (Panigrahi, 2019). The hostel mess, university cafeteria, cleaning and security services, etc., are outsourced. Many institutions do not invest in infrastructure. Maintenance and repair activities, renovations of buildings, purchase of chemicals for the laboratories, journals, especially international journals, in the libraries are common measures adopted in many institutions.

One of the measures adopted by several universities is putting a curb on the appointment of teachers when vacancies fall as a result of retirement. The universities continue with temporary lecturers, part-time teachers and guest lecturers. The guest lecturers are paid less than fifty per cent of the salary earned by regular teachers.

The substitution of regular teachers with guest teachers is very common in many public universities. In other instances, not even guest teachers are appointed and the remaining faculty struggle to continue with the academic load. The shortage of teachers is a serious issue affecting quality of higher education in India.

Cost-Sharing Measures

Cost sharing or cost recovery is a process where a larger and significant share of the costs of higher education is shifted to the main beneficiaries of university education—students and their families. The cost sharing/recovery takes the most common form of levying tuition fees and fees for the dormitory and other facilities. Traditionally, higher education was mostly state funded, and the student fees accounted for a low share of recurring expenditure on higher education in most of the South Asian countries and were close to zero in the Central Asian countries (World Bank, 1994). However, the situation changed and student fees were introduced in those countries where it did not exist and increased tuitions in those countries where it already existed. Needless to add, student fee became the major source, if not the only source, of financing private higher education institutions.

In countries such as the UK and Australia, the introduction of fees was a well thought out process without experiencing severe protests from the students. The fees levels in these countries have been low till the 1980s. In the 1980s, student fees were introduced in Australia for foreign students at around 20% of the per student cost. In 1988, the fee for foreign students was increased to the equivalent of full cost, and a fee at a rate of 20% of the cost was introduced for the domestic students. In the 1990s, the fees of the domestic students were increased under the Higher Education Contribution Scheme (HECS) (West, 1998). The UK also followed a similar pattern of introducing fees for international students first and expanding its scope to domestic students later. The inflow of foreign students, especially in the UK and Australia, strengthened the financial stability of many of their universities. In the 1990s, student fees in higher education were introduced is most of the developing countries in Africa, Asia and in the transition economies. In other words, cost sharing through cost recovery became common feature in seeking alternative to public sources of funding higher education.

Most countries in Latin America, Asia and Africa introduced student fees in the public universities from the 1990s. Makerere University in Uganda led the cost recovery measures through the system of private students in public universities. The post-USSR period saw cost recovery measures as the main source of financing of public universities in many East European countries. The examples of Bangladesh, Cambodia and Vietnam are good examples of introducing cost recovery measures in higher education.

India too introduced cost recovery measures in higher education. Many institutions introduced student fees and self-financing courses both in government and aided institutions. The prestigious institutions such as Indian Institutes of Technology

(IITs) and Indian Institutes of Management (IIMs) have move towards substantial recovery of the cost. The fees levied in these institutions come close to the per student expenditure in these institutions.

Income Generating Activities

The universities in the developed world moved towards self-financing arrangements. They engaged in income generating activities. Unlike the resource sharing arrangement, income generating activities bring more money to the sector. The entrepreneurial universities (Clark, 1998) are good examples of this trend. The universities in Europe and in the USA became entrepreneurial, encouraged non-governmental sources of income while remaining public institutions. Many of them maintain strong, university–industry linkages and university–community partnerships and diversified sources of funding for their study programmes.

The diversified sources income generation included endowments, full-cost short courses, enrolment of private (self-financed) students, running courses on distance learning mode (such as different forms of e-learning) and programmes of continuing education to be paid for on a full-cost basis and setting up institutions abroad. Entrepreneurial universities can also introduce innovations leading to patented products, wherein the licence to manufacture such products can lead to the generation of revenue for the university. The universities use their physical facilities to generate additional resources. In some of the countries, the university facilities were rented out for guesthouses, catering services and private functions.

University–industry linkages are another less exploited source of generating additional income for the higher education sector. Industry and business organizations are direct beneficiaries of educational and training programmes. The profits corporations generate are partly attributable to the contributions by the education sector—both in terms of research and professional development. Corporations may collaborate with the academia in several ways, with varying funding commitment under various mutually acceptable programmes.

The industries may help in several ways to augment institutional resources of the higher education sector. The philanthropic contributions from billionaires are examples of contributions from industry. Many industries have established Chairs in University Departments and helped promote research and innovation in the universities. The funds from the budget of Corporate Social Responsibility can be a good source to substitute public funding.

While the potential to generate income from the industry for higher education is high, the amount mobilized from industry sources is negligibly low. A lack of mutual trust between higher education leaders and industry managers is an important reason for poor university–industry linkages. Similarly, the relevance of research carried out in the university is questioned by the production sectors. What is required is to have consultations with industry leaders to frame a part of the university research and competencies to develop good quality application-based research in the universities.

Student Loans

Student loan is another popular method to share the cost of higher education with students/parents. The student loan is a mechanism to shift the incidence of financial burden for pursuing higher education to the families or individual students. Many developing countries initiated student loan scheme in the 1960s. The loans enable student-borrowers to avoid up-front payments for higher education (whether for tuition or living expenses) by delaying payment—payments from earnings after graduation. Student loan programmes are becoming popular in many countries. Student loan programme can be income contingent loans and government-operated loan schemes or commercial bank-operated loan schemes.

The income contingent loan (ICL) is in operation in the UK and Australia. The students repay the loans only when they are able to earn a certain amount of income. As a safety measure, the borrower in the incidence of an ICL cannot pay more than a certain percentage of his/her income as repayment amount. The steep hike in student fees in the UK, like in many countries, is paid by the students through student loans. Student loans also help the private institutions to expand their enrolment even when the fee levels are high.

There are two stages in the implementation of student loans. The student loans were not popular initially many countries. Therefore, the government took the initiative to provide loans. The first stage was the public-funded student loans, and they remained popular in the 1970s and 1980s. At times, the public authorities provided loans mostly in the form of merit-cum-means loans and were mostly availed by the needy students. However, it was found that many did not repay the loans after their studies. Consequently, the governments reduced their roles providing student loans.

In the second phase, the student loans are provided by the commercial institutions and banks. This form of financing has emerged as the most important form of alternative to public financing of higher education. A large number of students in many countries rely on student loans to pursue their higher studies.

The student loans have become popular in India. Loans are taken from commercial banks for study in India and to support study abroad programmes. The amount of loans to students has gone up in India. The total number of loans increased from 0.112 millions in 2000–01 to 2.59 million in 2013–14. The education loan amount increased from Rs. 1028 crores to 70,282 crores during the same period (Rani, 2017).

The challenge is to recover the student loans. Overall global loan recovery is considerably low at 39%. The major problem from the student side is that of cumulative loan burden. Economists project an accumulated student loan debt of $2 trillion by 2021 and as much as $3 trillion by the end of this decade (Johnson, 2019).

Private Higher Education Institutions

Private universities and higher education institutions have been expanding in most countries in the past three decades. Half a century ago, there were few countries with private universities, and today, there are only few countries without them. The private universities grew fast in East Europe, East Asia, Latin America and Africa. However, there are many countries which have predominantly private higher education institutions. Countries in the South East Asian region traditionally have a high concentration of private higher education. For example, Japan, Indonesia, Philippines and Malaysia have majority of institutions and students in the private institutions. In Latin America, private higher education institutions became a dominant partner in higher education development in the region (Bjarnason et al., 2009). In Chile and Brazil, more than three-fourths of the student enrolment are in private higher education institutions.

The increasing share of middle class in the total population is an indication of improved income levels of the households. The middle class families are more willing to seek higher education and pay for it if higher education provisions are not available at subsidized prices. In other words, increased income levels combined with eagerness to invest in higher education provided a fertile ground for proliferation of private higher education institutions and massive expansion of enrolments in private institutions and massification of the sector in many countries.

The major reasons for the advent and expansion of privately operated higher education institutions are as follows: (a) fiscal constraints of state encouraged private sector to pitch in to meet the growing social demand for higher education, (b) offering employment-oriented courses and study programmes, and (c) the success of EFA programmes has exerted pressure to expand on the higher education system. Several innovative approaches have been initiated to facilitate financial sustainability for private universities. These include the initiation of competitive and attractive academic programmes, research and consultancy, establishment of a joint private higher education bank, internal income generation, and the adoption of unit-based funding, among other measures. Needless to add, student loan from commercial banks is a fertile ground for private higher education institutions to thrive.

In India, on the other hand, the government encourages private sector operations in higher education, leading to the opening and operation of many private unaided colleges in the southern zone and the enthusiasm exhibited by private entrepreneurs in investing in technical, professional and management education. This has also led to the emergence of an increasing number of private unaided colleges for providing professional and technical education in India.

External Funding of Higher Education

External funding is a major source of financing of higher education in many countries. In the 1960s, many newly independent and less developed countries relied on external funding to develop national universities and to support staff development programmes. However, over a period of time, the reliance on external funding for higher education declined because of two reasons: (a) priorities of the funding agencies and countries shifted from higher to primary education; (b) higher education in the less developed countries became less reliant on public funding.

Some countries still rely on foreign aid for higher education development. More importantly, some of the funding agencies are more willing to finance higher education in this decade than in the previous decades. For example, the share of the World Bank's lending and technical assistance projects in tertiary education has increased in this decade accounting for 23% of its total lending in 2017. There are 80 lending and technical assistance projects run by the World Bank in collaboration with the governments in selective countries in Africa, East Asia Pacific, Eastern Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa and South Asia.

Foreign funding for higher education primarily comes through Foreign Direct Investments (FDI), foreign institutions operating in other countries in the form of branch campuses and through government-to-government collaborative projects. Another form of flow of foreign funding is through institutions. Institutions of higher education at their own levels enter into memorandums of understanding (MoUs) for promoting joint and dual degree programmes, research activities, through education hubs and through MOOCs.

Student Support Systems

Many countries that have adopted market-friendly reforms in higher education have also introduced student support systems on a large scale, which facilitate the disbursement of student loans, scholarships and various forms of financial assistance and subsidies. One of the important forms of student support system is provision of financial assistance and scholarships to students. The UGC in India has 17 schemes in 2015–16 which are provided to students at all levels of higher education—undergraduate, graduate, M.Phil. and doctoral studies. Scholarships for undergraduate studies are mainly offered by the state governments through the Directorate of Collegiate Education and Technical Education. These schemes are diversified and include merit and loan scholarships for students in government and private aided courses in aided colleges of the general education.

Another initiative by one of the state governments in India is the fee reimbursement scheme (FRS). The FRS for engineering courses was introduced in the Indian state of Andhra Pradesh in 2008 and was intended only for students classified as the Other

Backward Castes (OBCs) for entry into professional and engineering courses but was later extended to poor students and general courses. Although the term FRS implies that the student pays first and gets the reimbursement later, in practice, the fee is not paid by the student at all but by the government that offers the management of the institution concerned an assurance to pay the fees.

The FRS covers both public and private institutions including corporate colleges, and the income criterion is pre-specified to enable students to avail of this scheme. However, as in the case of certain other programmes, this scheme too though well-intentioned suffers from a poor design and certain issues that hinder its implementation. The fee structure includes a nominal fee for students admitted through the convener quota and a high fee for students admitted through the management quota. Engineering course shares about a relatively low share of enrolments (less than 20%) but accounts for more than 60% of the total amount of scholarships in India.

Edited Volume: Innovations in Financing of Higher Education

As discussed in previous sections, the sphere of higher education across all countries witnessed an unprecedented expansion in the twenty-first century, and the expansion in the middle-income and less developed countries has added to global enrolments in recent decades. Such a massive expansion of the education system has also raised issues related to several innovative options of financing higher education. CPRHE conducted a study on 'Financing of Higher Education'. It explored the strategies adopted by public higher education institutions when there is a decline in public funding and innovative methods explored by the public higher education institutions with the available resources at their disposal.

One of the prominent activities of the centre is to conduct an international seminar in collaboration with the British Council India on higher education every year. The centre invites to its annual international seminar eminent researchers and policy-makers working in the field of higher education sector around the world. Despite the differences in arguments and assessments by these eminent people in higher education sector, the thought-provoking dialogues in the seminar help to bring out a compiled version of the articles written by the paper presenters in the seminar. The whole process involves rigorous editing of the papers written by the authors to bring out a piece of compiled edited volume retaining the originality of analysis and arguments by respective authors from different countries. The present volume, titled '*Innovations in Financing of Higher Education'*, is one among the series of other volumes which contains valuable contributions from various well-known educationists, researchers and policy-makers in the field of financing of higher education.

The volume is arranged into four major themes. They are (a) Financing of Higher Education: State-Market Dynamics, (b) Innovations in Financing of Public Higher

Education Institutions, (c) Financing of Private Higher Education and (d) External Financing and Student Support System in Higher Education.

Financing of Higher Education: State-Market Dynamics

The first theme of the volume on 'Financing of higher education' has four chapters focusing on mode of financing of higher education, Russian transition in financing, public–private partnerships and entrepreneurial universities.

Chapter 2 on Mode of Financing of Higher Education by Saumen Chattopadhyay deliberates regarding various possible modes of financing of higher education and therefore their impact on governance of higher education institutions. The chapter delves upon the arguments for state financing of higher education and recent arguments on the feasibility for a credit market and voucher system to fund higher education.

The next chapter (i.e., Chap. 3) by M. Alashkevich and I. Froumin uravels the Russian transition from state to quasi-market in financing of higher education. Agreeing to the argument on competitive funding by the state, the authors also argue for a gradual degradation in the quality of higher education in Russia due to such transition.

The subsequent chapter (Chap. 4) by Bikas C. Sanyal is on the entrepreneurial university. In the chapter, the author lauds about social and spiritual entrepreneurship practised in several countries giving emphasis on accreditation of entrepreneurial universities and suggests guidelines for management of such universities based on OECD countries experiences.

Innovations in Financing of Public Higher Education Institutions

The second theme on 'Innovations in financing of public higher education institutions' consists of four chapters with an emphasis on the financing of public higher education institutions and public financing of private education.

Chapter 5 on 'Financing of public higher education institutions in India' by Jinusha Panigrahi based on an empirical study explores several means of resource allocation to public higher education institutions and alternative strategies to mobilize additional resources when there is a deficit in resources received from government to meet day-to-day expenses of the institution. Financing of higher education institutions in one of the states or provinces of India based on a case study of selected higher education institutions is explored in Chap. 6 by Mitali Chinara and H. S. Rout and in Chap. 7 by C. Krishnan.

Chapter 8 is on public and private partnerships for higher education financing by M. M. Ansari. It argues for a strong interface between industries and higher education institutions keeping into consideration the quality parameters which would meet the resource requirements of institutions.

Financing of Private Higher Education

The section on the 'Financing of private higher education' includes three chapters, those are based on entrepreneurial universities, innovative and sustainable approach in financing of private higher education in Tanzania and costs of private higher education.

Chapter 9 by Moses Oketch on 'Private Higher Education Institutions and Entrepreneurial Universities' examines the trends in private and entrepreneurial universities in Sub-Saharan Africa and the impact of such a trend on the concerns for social and economic equality.

Johnson in his chapter (Chap. 10) on 'Financing private universities and university colleges in Tanzania' analyses the transition of private universities in Tanzania supported by tuition fees and government initiatives. But, the author underlines the challenges of such institutions for long-term viability and therefore outlines few suggestive measures to improve their competitiveness and sustainability in innovative ways.

Chapter 11 by Malathy Duraisamy thoroughly elaborates the expansion of private higher education in India and gives a critical analysis of the implications of growing private providers on costs of higher education, changing financing patterns of government and households, the methods used by higher education institutions to recover the costs and thereby overall impact of the cost recovery on affordability to higher education.

Public financing of private higher education institutions is depicted in Chap. 12 by B. S. Reddy and K. A. Reddy based on the study of engineering education in one of the Indian provinces. One among other innovative methods experimented in higher education financing in Indian context is the fee reimbursement scheme (FRS). The chapter unravels the issues associated with the financing of engineering education through FRS.

External Financing and Student Support System in Higher Education

This section on 'External financing and student support system in higher education' consists of four chapters focusing on external financing of higher education and student financing of higher education through various means.

Chapter 13 by G. D. Sharma on 'External financing of higher education' puts forward the theoretical arguments for external financing of higher education and practical approaches with limitations. The chapter gives an overview of external financing through various modes such as grants, loans and scholarships. The author suggests the way forward in the emerging new innovative model of higher education relying on FDI inflows to finance higher education. Indian challenges with changing dimensions of external aid for education and, therefore, its implications on cooperation and exchange are analytically elaborated by Mona Khare in Chap. 14.

Chapter 15 by Pankaj Mittal in this last section of the volume extensively elaborates the available methods of financing students to access higher education in India and other digital initiatives to enhance students' experiences of higher education in the campuses of universities and colleges. Various skill-based initiatives to improve employability of students are also discussed in the chapter. The final chapter of the volume (i.e., Chap. 16) by V. P. S. Raju based on an empirical study gives an assessment of GoI's Prime Minister's Special Scholarship Scheme for Jammu and Kashmir province students to access higher education.

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Part I
Financing of Higher Education: State-Market Dynamics

Chapter 2
Mode of Financing of Higher Education: An Assessment of the Possibilities

Saumen Chattopadhyay

Abstract Inadequacy of resources and poor governance are factors constraining improved quality of Indian higher education outcomes. This paper analyses the issue of funding from two perspectives—what is being funded and how it is funded. While the former issue pertains to the funding of university inputs as compared to the university outputs, the second issue looks at how the funds are released to the universities. In some of the instances, funds are transferred directly to the universities, and in other instances, it is transferred through the students. This paper takes forward the framework presented by Jongbloed (Public–private dynamics in higher education: expectations, developments and outcomes. Transcript, Transaction Publishers, New Brunswick, USA, pp 113–138, 2007) in a 2 by 2 classification of the two dimensions of mode of funding. It discusses various such interactions between the state and the market by giving examples of the self-financing courses and the online courses, the development of the credit market, the voucher system, performance-based funding and the public–private partnerships (PPP) in addition to the recently announced policy initiative by the government, the Higher Education Funding Agency (HEFA).

Keywords Mode of financing · Performance-based funding · Credit market · Voucher system · Self-financing courses · Online courses · Public–private partnerships

Introduction

The higher education sector is undergoing transformation all over the world, and India is no exception. It is evidently clear from the series of policy initiatives being mooted and implemented that the government is concerned about addressing the socio-economic needs at the local as well as at the national levels, while at the same time, reforming the university system to deliver quality education and produce good quality research in the context of globalizing higher education system. The ongoing

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massification of higher education is reflective of the growing demand for higher studies in the wake of increasing importance of knowledge in spurring economic growth coupled with an increasing demand to treat higher education as an instrument for social mobility. The growth of the private sector participation which has been pretty high in the last decade has supported the steady rise in the Gross Enrolment Rate (GER) in higher education to around 27%. The grim fact that the expansion has not witnessed a commensurate improvement in quality has been a source of discomfort for the government. While the role of public financing of higher education is undeniable, the issue is how to improve governance to improve quality and make the best possible utilization of resources, human, financial and physical. This paper looks at the different modes of state funding of higher education and their possible impact on the governance of the higher education institutions.

We begin with a brief discussion of a very contentious issue whether higher education is a public good, which helps us setting the stage for the debate on the issue of subsidization. We present a schema to deal with the issue of mode of funding to understand the relative roles of state and the market and what implications it would have for governance of the institutions and the missions of the university. We begin with direct funding by the state, which is generally the case for the majority of the government-funded universities, and we follow it up with our discussions on the possibility of developing a credit market and a voucher system to fund higher education. We end our discussion with the possible implications of Higher Education Funding Agency (HEFA), which was launched by the Government of India to fund the universities in 2016.

Higher Education as a Public Good

The debate on classification of higher education as a public or a private good has continued to hog the limelight of policy discourse in higher education. The discussion on policy has been basically a contestation of the nature and extent of public–private divide in higher education. If we go strictly by the definition of public good (Samuelson, 1954) which is defined in terms of two characteristics, non-rivalry in consumption and non-excludability, then higher education is not a pure public good. It is best described as a quasi-public good (Chattopadhyay, 2012; Marginson, 2007) as higher education despite being essentially a private good as an individual stands to gain from higher stream of future earnings than what would have been possible otherwise, and higher education generates positive externalities of various kinds. Often admission to an institute of higher education is exclusive as the number of seats is given. Expenses incurred on higher education by a student are considered as a private investment on acquisition of skill as manifest in terms of human capital embodied in the student which is supposed to yield in future a stream of income to the students. In addition, higher education also generates positive externalities in terms of inculcation of citizenship which is essential for the functioning of the democratic institutions, reduction in corruption and inculcation of moral and ethical values and

many other traits so essential for the maintenance of social order and a vibrant democracy, distribute knowledge and ideas, foster scientific literacy and promote arts and culture (Marginson, 2016). Though higher education is, therefore, neither non-rival nor non-excludable, there is a need for public support in the form of subsidization of higher education to reap the enormous benefits higher education generates and to ensure access to higher education by the people at the margin to achieve participative and inclusive development and cultivate talent to build up a knowledge-based competitive economy (Chattopadhyay, 2020). Higher education determines broadly speaking a society's evolutionary potential and, from an economic perspective, a nation's international competitiveness and location of industries across the border (Alexander, 2000).

Given that the public support is an imperative one for higher education, the two major problems that the Government of India seems to be grappling with are the financial constraints and the issue of low quality of education and research by international standard keeping in mind the large size of the Indian higher education system.[1] The three major objectives envisaged at the beginning of the 11th Five Year Plan (FYP), expansion, inclusion and excellence have remained equally relevant today and would remain so for the years to come. The fourth one which is often added to the stated three is the issue of employability. In view of the labour market mismatches and increasing concern for poor quality of education, poor employability has emerged to be a concern for the policymakers, the industry and the graduates.[2] Poor employability can be legitimately held responsible for hindering the realization of demographic dividends, as the incidence of graduate unemployment and underemployment soars.[3] It is needless to mention that without excellence, both expansion and inclusiveness signify very little or virtually nothing.

The policymakers since the initiation of the New Economic Policy (NEP) in the early 1990s have been advocating the implementation of Structural Adjustment Policies (SAP) which entails construction of a regulated market for the different sectors with increased private participation to achieve efficiency through competition. The stabilization policy as advocated by the IMF imposes restrictions on fiscal deficit in terms of GDP which necessitates curtailing of government expenditure resulting in an unwarranted cut in expenditure on social welfare programmes and social sector development expenditure. In the context of a developing country, both the arms of NEP have adverse implications for the social sector as privatization hampers

[1] Conceptualization of quality of higher education is a difficult task. Often in the public discourse, the non-featuring of the Indian universities in the global ranking tables is cited as the reason for poor quality.

[2] According to the National Employability Report 2013, employability was less than 25% across the majority of the job functions with graduates from science, commerce, arts, etc.

[3] The demand side factors are responsible for weakening of the demand for graduates because of rising intensity of capital-intensive technologies and high-skilled technicians at the expense of medium-skilled ones.

accessibility to education and health which is compounded by the decline in the budgetary support for the social sector.[4]

But despite privatization, the quality of higher education as pointed out by several studies and reports has not really witnessed much of an improvement. Commercial practices which abound private sector in higher education are inimical to quality education because of the tendencies to cut costs in presence of information asymmetry the students suffer from and their lack of agency (Chattopadhyay, 2012). The government time and again has looked into the matter as to how to improve the quality of higher education in the country. In terms of employability as well as featuring of the Indian universities in the world ranking, there is enough ground to argue that in terms of quality as measured by the world ranking, the Indian higher education is far behind the top-ranking world-renowned universities. This argument is often linked with the issue of resource constraint that the government is faced with. More importantly, it is now being realized that it is not solely an issue of resource constraint, but it is poor governance which can be reformed and reinvigorated by tweaking or ushering in big ticket changes in the mode of funding higher education. Governance reform by changing mode of funding to install accountability mechanisms may be one way of transmitting signals to the stakeholders, the teachers, students and the administration indirectly to effect governance reform. While quality improvement would remain constrained by the quality of inputs, the objective is to ensure optimal utilization of the resources, physical, human and financial, the higher education system is endowed with. The issues of funding and the governance problem are therefore no longer disassociated from each other.

We may like to think of three basic questions. One, how to overcome the overall resource constraint; two, how to encourage the universities to generate more revenues and explore alternative channels of financing while negotiating a crucial trade-off among the three objectives of efficiency in resource use, equity and excellence (Chattopadhyay, 2020); and three, how to design mode of funding to effect changes in the governance pattern. This has two dimensions: one is how does the state fund higher education and how would the state like to invoke the role of the market as a preferred form of institution in mediating the state resources towards the universities. The last is what the government is keen to explore because it deals with both the problem of resource deficiency and poor quality of public higher education in general. Funding is recognized to be one major way to regulate the higher education system (Jongbloed, 2004).

[4] In a study conducted by NUEPA (Bhushan, 2010), found out that as expected, central universities are the cheapest. Private deemed universities charge the highest. Maximum percentage of the programmes in applied disciplines and general was in the range of Rs. 50,000 to Rs. 100,000. Medical are the costliest with 23% above Rs. 200,000. In south, average fees charged are the highest at Rs. 78,000 followed by East at Rs. 57,825. West charges the lowest at Rs. 16,138.

Funding Policies for Public Higher Education Institutions

Policies to reform the government-funded institutions would constitute two major areas, reform measures related to funding and regulations to improve university governance. While the rationale for government support for education, in general, is derived from the generation of externalities and concern for equity, two main questions which need to be addressed in determining the funding mechanism are: what is funded and how is it funded (Jongbloed, 2007). In the traditional models of funding, the policy approach was to arrive at the quantum of funding based on negotiations with budgetary items, such as salaries, maintenance and students' scholarship. This is what is called input-based funding. In such a system, the teachers are supposed to be intrinsically motivated to deliver as per their potentials. It is generally argued that in absence of any accountability mechanism either in the form of cost recovery from the market or enforcement of some objective assessment of faculty performance, the conduct of teaching and research will remain sub-optimal resulting in wastage and inefficient use of resources. The concept of efficiency in education is rather nebulous, and it is not often understandable by the stakeholders. Since the non-profit institutions do not have a profit maximizing objective, the driving force for the system becomes prestige maximization. However, only the top-ranking institutions are driven by the objective of prestige maximization as the institutions down below the ranking may not associate prestige with what they do. This is not necessarily true for the private sector in absence of public sector funding. Though on paper, profit making is not permissible, the privately funded institutions remain engaged in achieving efficiency, cost minimization given output or output maximization given cost (Chattopadhyay, 2012). The issue is therefore how to change the mode of funding so as to overcome the inherent inefficiency in the use of resources in the functioning of these public universities. Therefore, to ensure accountability to the society and incentivize the actors to deliver, the tendency has been to shift towards performance-based budgeting whereby the release of funding is made contingent upon performances of the stakeholders as reflected in the outcome of the institutions. In Table 2.1, Q1 is the base scenario where the funding agency, the University Grants Commission (UGC), pays for the inputs directly to the universities independent of the academic performance. In Q2, the UGC also partly pays for the performances of the universities through various schemes like award of additional grants based on the performance both at the departmental level (like DRS, DSA, CAS which are funded by the UGC based on the departmental level performances) and at the university level like award under the scheme of university for potential for excellence (UPE).

With regard to the second question, one can envisage two types of funding mechanism. One is based on a centralized agency where the funds are released by the funding agency, the University Grants Commission (UGC), directly to the universities. In the other extreme case, what is called demand-based funding, the funding is channelized through the students as it happens in a typical market where the source of revenue is the demand generated by the customers. The strong advocates of market model would naturally press for moving towards student-based funding through the

Table 2.1 Mode of funding higher education: state versus market

	How is it funded? Centralised(regulated approaches)		*Market knows but needs support*
What is funded? Input orientation *Governance improves*	Q1	Q2	Output Orientation
	Q4	Q3	
	Decentralised (market) funding flows driven by the decisions of the clients?		

Source Jongbloed (2007)

voucher scheme where the students are given a certain amount of financial entitlement. To generate competition in the market, it is argued that students are to be financially empowered, and in the process, the HEIs would have very little scope to rest on their laurels and, instead, would have to compete with one another for a larger share in the market as a typical firm would do. In Q3 and Q4, the resources required for university financing in terms of what is funded, input or output will be determined by the market in a decentralized system. In Q3, the most notable example is the voucher system. In Q4, the possibility is that the university will offer online courses like MOOCs and self-financed courses where the inputs will be funded by demand it generates for these courses.

In Table 2.1, the horizontal axis shows the degree to which the governments are paying for the various combinations of inputs and the outcomes instead of the inputs alone and the vertical axis depicts the extent of decentralization. All the four quadrants (Q1, Q2, Q3 and Q4) show how different funding arrangements can be conceptualized.

The schema presented by Jongbloed (2007) needs to be elaborated by bringing the imperative of distinguishing between student-based funding and research-based funding as students and research outputs are the two main indicators of research performance of a university. The relative composition between the two, however, would vary depending on the university mandate. Since a publicly funded university is not supposed to be making profit, offering the online courses or market-oriented courses would be to recover the cost of inputs, either partially or fully. In Q4, the funding will be directed towards a university based on the performance of the university. Both students based on reputation and university ranking would help in making informed choices, and research funding will be directed towards a university based on research output.

Though in Q3 and Q4, the market continues to fund, the idea is that the funding is routed through the market. In Q3, the government would help the students to defray higher tuition fees by institutionalizing and developing a credit market and provision of scholarship for the meritorious and the needy. In Q4, the students are offered financial support in the form of vouchers.

Case 1 (Q1): Input-Based Funding

Base scenario: Q1 provides us the base scenario. The problem is one of the inefficiencies as the inputs, essentially the teachers and the students, may perform below their potentials due to lack of accountability in the system as mentioned above. This provides the rationale for moving towards market-based funding which would give more importance to the output or the performance of the universities in determining the quantum of funding. In India, the government-funded universities and colleges are governed by the UGC Regulations.

Case 2 (Q2): Performance-Based Funding

Academic freedom and institutional autonomy under input-based funding are no longer acceptable to the state and the society with concerns being raised for value for money and abuse of freedom resulting in sub-optimal performance by the universities. Performance-based funding seeks to install performance-based accountability by establishing institutional objectives and periodic assessment of performances towards these goals (Alexander, 2000). This becomes a convenient approach to compare and contrast performances of the universities which tends to foster competition among the universities. The University Grants Commission has some provisions for performance-based funding which pertains more to the research-based funding. Students' performance in the Indian context is rarely considered for the purpose of funding. Some of the schemes that the UGC has are UPE and other departmental awards like DRS, DSA and CAS.

The Indian scenario in terms of the composition of fund allocation in terms of input based or performance based is closer to Q1 than Q2. The UGC Regulations (2010, 2016) called performance-based assessment system and computation of the academic performance indicators (PBAS-API) regulate promotion and recruitment of the faculty based on certain objective criteria. The objective of enforcement of PBAS-API is to ensure minimum standard rather than to reward better than expected performances. The problem with PBAS-API is that the implementation of this sort of accountability measures ends up with straight-jacketing of policies with complete disregard for diversity across the universities, across the disciplines and among the individuals (Das & Chattopadhyay, 2014). Moreover, there are genuine problems associated with the measurement of teaching and research which can be used. In the Indian context, the mushrooming of journals indicates a rapid rise in the predatory journals. Since there is an element of competition for grants, good departments end up being awarded with additional funds which accentuates inequalities in the distribution of resources across the departments (Dill, 2014).

Dougherty and Natow (2019) argue that performance-based funding which is informed by neoliberal approach to uphold "market fundamentalism" could be made

more meaningful and effective if the unintended effects this mode of funding generates and the hindrances this mode of funding encounters are addressed. This entails suitable designing of the funding mechanism drawing lessons from a range of social sciences by emphasizing more on socio-political models of organizational behaviour which transcends the narrow boundaries of economistic models of organizational behaviour by including aspects of organizational culture, leadership, cooperation and learning ambience. They argue that the pursuit of efficiency can do considerable damage unless it incorporates concern for the systems of class, racial, gender and other forms of inequalities.

Case 3 (Q3): Voucher System, a Solution for All the Ills Albeit Impractical

The voucher system was originally proposed by Friedman (1955) who thought it has the great potential to alleviate the problem of poor governance in the institutions as they now face the market competition as the students acquire the role of consumers being endowed with financial resources to make choices to pursue their studies. The market creation should lead to efficiency in the use of resources, and the competitive pressure will eventually help deliver quality education.[5] In this system, fees are raised but subsidies are not curtailed as public support for higher education is channelized through the students generating competition in the process among the education providers.[6] This mode of funding seeks to overcome the problem of poor governance or what is called government failure while public support to higher education is continued with.

Though theoretically, this sounds good as both the problems of allocational efficiency and technical efficiency are negotiated with, for all practical purposes and in view of what education is for the self and the society, there are scopes for compromises.[7] Jongbloed (2004) raises two questions based on Barr (1998). The first question refers to the ability of the students to make informed choices and the second how useful competition is. In today's age, the problem of information asymmetry in making choices is mitigated to a large extent because of the development in the ICT. The pertinent issue is what kind of governance structure will evolve with the transition to demand side financing. Though it depends on the design of the voucher system, academic freedom will get curtailed as the academia is compelled to respond to the market forces. The link between governance improvement and quality is rather fuzzy. If there were a link, the privately funded colleges would have delivered quality education otherwise. In the voucher system, within the overarching regulatory structure,

[5] The link between efficiency and excellence is somewhat nebulous and tenuous.

[6] There arises an issue of prioritization of choice of courses *vis a vis* choice of institutions. Because of the eligibility criteria for seeking admission into the HEIs, the choice making would neither be free nor should it be so (Chattopadhyay, 2012).

[7] The neoliberal approach to policy making emphasizes on these two types of efficiencies.

the stakeholders strive hard to cater to the market. There are four kinds of constraints Jongbloed (2004) has referred to, (i) protecting the subjects as some courses may have less demand, (ii) protecting the institutions may have less demand due to the regional characteristics, (iii) protecting the individuals as the students hailing from the under-privileged background need greater financial support and (iv) protecting the quality as despite strong incentive to deliver good quality, setting the standard becomes necessary. This is because the students may not know what good quality education means as ex-post uncertainty remains and students are more worried about certificates rather than the process of teaching–learning.

The voucher system tackles the problem of government failure which is no less of a problem compared to the problem of market failure (West, 1995). As Smith (1776) pointed out long ago that input-based funding does not guarantee delivery of quality education in absence of accountability. He favoured student fee-based funding to make the professoriate accountable to the students and deliver quality.

Case 4 (Q4): Market-Based Funding of Inputs

In this case, the university seeks to recover the cost of inputs from the market. This would require the universities to respond to the market by offering courses which are in high demand and applying for projects the funding agency is keen to fund essentially to finance basic research. While the market demand is backed up by the purchasing power, the government would like to support the market demand by making provisions for student loans at concessional rates.

One could think of a combination of demand-based financing with the centralized allocation of resources based on demand. The centralized funding agency would directly pay to the universities based on the number of students admitted. Based on some pre-determined criteria to defray the cost of delivery of certain courses, the universities will claim reimbursement from the government. In the earlier case, the reimbursement would be determined by the amount of vouchers sought to be redeemed by the institutions. The voucher amount was determined based on the students' need and socio-economic background, and the onus would be on the universities to achieve efficiency and deliver quality to attract more students.

Offering of Self-Financing and Online Courses

Let us now work out the implications of raising fees in a government-funded institution. We can conceive of two cases. One, it is a fall in the budgetary support which entails enhancement of fees (p) to compensate for the curtailment. This would require the government to develop a credit market to help those who would otherwise opt out because of the higher fees. Two, the government does not reduce the budgetary

support but changes the mode of funding as fee (p) is hiked with no commensurate fall in the government financial support. This entails that the mode of funding changes as the students are directly funded and not the institutions.

Implications for Raising Tuition Fees for the Economy: Merit and Margin

Since there does not exist arguably any relationship between affordability, i.e. capacity to pay fees and eligibility requirement for getting admitted to a course in a HEI, raising fee (p) would lead to a compromise with the process of admission of the most eligible unless there exists a credit market to lend money to the eligible but financially under-privileged. The imperfect credit market or a market for educational loans, however, has got its own limitations. In general, high fees would lead to a fall in the expenditure on education by all the students who are presumably guided by their cost–benefit calculation, but it is a matter of greater concern if the most eligible and the talented ones reduce their expenditure perforce as Becker (1975) showed in his formulation of the DD-SS model. If those who deserve to pursue higher studies are left out because of high fees, both the quantum and the quality of human capital formation for the nation as a whole suffer.

Similarly, a rise in fees leading to cut in investment expenditure on education by those who are in the periphery of the society is also a matter of concern which would manifest in terms of their dropping out of the system and agreeing to settle for a low level of education perforce, hindering not only their social mobility, but also of their future generations. Chattopadhyay (2020) has argued why a differentiated fee structure is not desirable for the sake of maintaining collegiality within the student community. Fixing the fee in terms of a fraction of cost incurred by the university is also problematic because of the positive association between cost and quality.

Fees and Cost: Implications for Quality

The nature of the relationship, the extent of equivalence and causality between fees and cost recovery is interesting and worth investigating. Advocacy for subsidization based on the argument of externalities and fostering of social mobility does not take into account the level of motivation of the students as well as of the teachers which would depend upon the amount of fees that they pay. If the high fees pinch, the students would be eager to get the best out of the system through articulation of voice and dedication as they internalize the true cost of education. This is evident from the behaviour of the students in a professional institution where the students are paying for their fees out of education loans. It can as well happen and it does happen, that higher fees can make the students so professional that they behave more like

consumers and are only keen for the credentials rather than going through the rigorous process of learning. This is what Smith (1776/2003) prescribed in his analysis of university failure. He argued if the students pay for the teachers' salaries, teachers would be compelled to deliver quality education and the inevitable result would be an improvement in the quality of education. However, the formation of human capital in the classroom is a joint process as learning outcome is co-produced. Students and teachers motivate each other to attain higher levels of teaching and learning.

Students in the best of the universities put in their best efforts and are highly motivated even if the tuitions fees are low because of the quality of human capital embodied and the academic ambience which prevails in these universities.

Developing a Credit Market as Fees Become Cost Recovery

A university offers courses which are not all market oriented. In that case, students can defray the burden of high fees with the help of education loans and/or with the support from scholarships.

It is argued that since expenditure on education is akin to investment, the government should develop a credit market where the students can borrow and fund their education. In fact, as we all know, nearly 75–80% of professional education in India is already being catered to by the private sector.[8] The tuition fees are often exorbitantly high, particularly in the medical education (Rani, 2019).

For some students, investment in higher education ceases to be a worthwhile profitable proposition as given the marginal rate of return, the marginal cost of financing goes up as loans are extended at a certain rate of interest (based on Becker, 1975).

Besides these, there are inherent imperfections with the credit market for education loans.[9] There are uncertainties in the job market. Studies show there could be discrimination in the name of gender, class and region (Panigrahi, 2011; Rani, 2019). The possibility that one has to take loans to study courses distorts the choices of the individuals at much earlier levels. We all know how expensive the coaching industry is for the parents who want their wards to study engineering and medical. Since choices made in education are irreversible, the under-privileged who can ill afford to pay high fees suffer distortion in their choice making as they opt out of the courses perforce which lack prospects for employment in general. In order to overcome the uncertainty faced by the students in terms of getting a job and even the expected

[8] Outstanding loans have grown at a CAGR of almost 30% since 2005 while education loan accounts have grown from 0.25 to 3 mn at a CAGR of 32% during the same period. Education loans account for 11% of total enrolment which was only 2% in 2002–03 (Re-imagining Higher Education in India, Yes Institute, 2016).

[9] Transaction costs such as the cost of information, screening and collection and defaulting are high for educational loans. No possibility for collateral.

salary to be adequate enough to pay back the loans, policymakers now argue in favour of income contingent loans (ICL).[10]

In general, high fees make the students demanding, willing to learn to enhance their employability so as to repay the loans back. Since the quality of education is co-produced, the accountability to the students would have an impact on the governance as the system gears up to serve the students.

A Critical Look at the Market Mechanism to Fund Higher Education

Application of economic principles to education is rather problematic as the concepts of the market, efficiency and competition as conceptualized in economic theory are not readily applicable (Chattopadhyay, 2012; Marginson, 2013; Teixeira et al., 2004).

Inherently Imperfect

Because of the highly differentiated nature of what the higher education institutions produce due to the uniqueness of the quality of human capital embodied and their level of motivation, the market is inherently imperfect. In addition to the sources of market failure, due to the role of the students as inputs as well as output, the market is best described as a quasi-market. Though it is the sovereignty bestowed on the producers and the students which is required for the construction of the education market, it is neither always feasible nor always desirable (Chattopadhyay, 2012). Infusion of market principles can energize the university system but at the same time, market forces can be inimical to certain courses, certain types of institutions and equalization of opportunities and can interfere with the faculty autonomy as they perforce succumb to the logic of the market. It may not be in the interest of the society that full freedom is given to the education providers to determine the fee structure and to let them have complete command over the education processes as it can lead to a compromise with quality. This is because of the fact that the students are not the consumers who can buy the degrees, but they are required to earn the degrees by dint of hard effort. If students are increasingly being treated as consumers, there will develop tendencies for appeasement of the students which would lead to compromises with the quality. Students are an integral part of the educational process, and they contribute to the quality of teaching–learning and research in association with the teachers. Apart from the argument that the market cannot ensure equal accessibility, the rationale for market construction for the attainment of quality is rather weak (Chattopadhyay, 2012).

[10] Loans are required to be paid back in the form of interest and capital repayments if the income earned exceeds a certain limit. In case the students remain unemployed or start their career with low.

Efficiency Makes Little Sense for Education

Both the concepts of allocational efficiency and technical efficiency are problematic in the case of education. While the quasi-market seeks to achieve allocational efficiency, it is good governance which is crucial for technical efficiency. However, the absence of a well-defined technical relationship between the inputs and the output renders the concept of efficiency rather fuzzy and weak. Moreover, efficiency in the use of resources in the form of cost minimization other than ensuring no wastage of resources may not lead to quality as good quality needs good quality inputs, particularly quality of human capital embodied in the teachers and the students. Further, competition is always selection-based efficiency (or S-based efficiency) and not exchange-based efficiency (or E-based efficiency) which means that good universities would always attract the best of the minds, both teachers and students (Glennerster, 1991). Fostering competition to achieve quality has the potential to consolidate the inherent hierarchy in the higher education system. The distinguishing features of higher education are non-replicability of the best of the inputs in the form of best of the minds and non-existence of a well-defined input–output relationship.

In Absence of Technology, Quality Depends Only on Motivation and Moral Values

The conversion of inputs to outputs requires active and motivated participation of the students and the teachers. That is why mere provisioning of infrastructure and availability of the teachers and students do not guarantee quality teaching–learning and knowledge generation. It all depends on the culture or academic ambience that would be motivating for the teachers and the students. Not all government-funded institutions are examples of government failure. Some top institutions deliver because of the motivation of the human resources and their self-esteem and pride in being associated with the prestige of the institutions. In brief, only good governance can get the best of the students and teachers, enabling them to deliver their best.

Higher Education Funding Agency (HEFA)

In order to overcome the problem of funding being faced by the universities and for the setting up of the high-quality infrastructure in premier educational institutions, the Union Cabinet approved the establishment of a Higher Education Financing Agency (HEFA) in the Union Budget 2016–17. “The HEFA would be jointly promoted by the identified promoter and the Ministry of Human Resource Development (MHRD) with an authorized capital of Rs. 2000 crore. The government equity would be Rs. 1000 crore”, according to an official statement made, after the meeting of the Union Cabinet, chaired by the Prime Minister.

The HEFA has been formed as a special purpose vehicle (SPV) within a PSU Bank or government-owned NBFC (promoter). "It would leverage the equity to raise up to Rs. 20,000 crore for funding projects for infrastructure and development of world class Labs in IITs/IIMs/NITs and such other institutions", the statement added. The HEFA is authorized to mobilize CSR funds from PSUs or corporates, which would in turn be made available for promoting research and innovation in these institutions on grant basis.

The HEFA would extend a 10-year loan to finance the civil and lab infrastructure projects. The principal portion of the loan has to be repaid through the "internal accruals" (earned through the fee receipts, research earnings, etc.) of the institutions. The government would pitch in with the offer to service the interest portion through the regular plan assistance. This scheme is applicable for all the centrally funded higher educational institutions who can become eligible members of the HEFA. What is important is that for joining as members, the institution should agree to escrow a specific amount from their internal accruals to HEFA for a period of 10 years.

Implications of HEFA for Quality and Governance

Linking capital funding with fee hike and internal accruals is an innovative step no doubt in the Indian context. Raising the fees has met with the students' resistance in absence of a sound basis to determine the fees across the universities. Though the universities would not remain constrained by the want of resources for possible expansion, the university has to ensure resources are generated. This would entail the universities to become strategic and to become visionary, entrepreneurial and competitive. In this emerging competitive situation, the universities which are better equipped and better endowed with the capacity and culture of the research along with greater cost recovery will be able to compete. In addition, raising the fees will make the system highly differentiated and hierarchical. This will distort the choice of students who are meritorious but feel handicapped by high tuition fees. Eventually, two categories of institutions will emerge and an accentuation in the differentiation will lead to expansion with excellence but not necessarily inclusive expansion.

Public–Private Partnership

The core idea behind PPP in higher education is that while public financing is essential for the purpose of equalization of access and to meet the social demand, private participation will improve governance and ensure efficiency in the use of resources. The advocacy for PPP is also argued to be dealing with both the problems that the government is faced with, inadequacy of budgetary allocations and governance problem which is symptomatic of government failure. In the partnership between

the public and private sector, depending on the various models of forging the partnership, both the investment and running costs will be shared by the public and the private sector. While the private sector will most likely embrace the neoliberal type of governance structure, it is not clear as to why the neoliberal type of governance will improve the quality of higher education.

New Public Management (NPM) is located within the neoliberal approach to education reform. As Ball and Youdell (2007) put it very succinctly,

> NPM has been the primary means through which the structure and culture of public services are recast in order to introduce and entrench the mechanisms of the market form and forms of privatization. In doing so it affects how and where social policy choices are made and systematically sidelines and disempowers educational practitioners. It also increasingly subjects them to new forms of control through performance management techniques.

Universities adopt a business-like approach and orients practices similar to what corporate entities practise. The key elements of NPM with focus on installation of accounting and audit culture are extensive use of written contracts and performance agreements, economic rewards and sanctions to effect improvement in public service delivery, institutional separation between different categories of functions: advisory, delivery and regulatory functions, contracting out of services, mainly non-core services and emphasis on contestable provision, a larger space created in favour of commercial enterprises, deregulation of market and privatization, etc.

The features of NPM will be incorporated in the governance model which will circumscribe academic freedom of the faculty, put them under surveillance and make them strategic and entrepreneurial to achieve the targets set by the UGC. In the process, both collegiality and creativity will suffer in the wake of the mad rush for maximization of points subject to the ability and time constraint. Though profit maximization will not become the objective of private sector operation, the effort to indulge in cost cutting would be inimical to quality education (Chattopadhyay, 2012).

Different Models of PPP

There could be various ways in which the public–private participation in education can be envisaged. The government can think of a few in connection with the delivery of education, as (i) the investor in land and building to begin the operation, (ii) as an employer of the teachers, the main input in this service sector, (iii) producer and the deliverer of services and having control over its delivery in terms of curriculum and pedagogy and, finally, (iv) the buyer of services, i.e. education. In case of (ii) and (iii), the private sector will be involved in the governance and most likely it will be designed in line with the NPM. For each of the models of PPP, therefore, the mode of public funding of private provider will vary with varying implications for governance (Chattopadhyay, 2019).

Conclusion

While inadequacy of budgetary resources for public higher education is identified to be one major reason for poor quality, government failure or absence of good governance is the other crucial factor. The issue is, therefore, how to address the funding problem while at the same time, the governance problem is tackled. Given the role higher education plays in the socio-economic development of a nation, how to design the mode of public funding to usher in changes in the governance mechanism. The question is how we can reform the mode of funding higher education which would not only deal with the resource constraint of the government but at the same time can help overcome the poor governance of the universities. This paper looks at the issue of mode of funding from two perspectives, what is it that funded and how is it funded. While the first issue pertains to the funding of university inputs *vis a vis* university outputs, the second issue looks at how the funding is released to the universities, directly or through the market mechanism where the students assume the centre stage. This paper takes forward the scheme presented by Jongbloed (2007) in a framework of 2 by 2 classification by bringing in the two distinct university outputs and, therefore, two sources of funding in the context of the market, the students to fund their academic programme and the research funding agencies to fund generation of knowledge. Any deviation from the input-based funding with no strings attached leads to some compromise with the university mission and academic freedom, but at the same time, it deals with the problem of abuse of academic freedom and low level of motivation. The paper discusses various such interactions between the state and the market by giving examples of the self-financing courses and the online courses, the development of the credit market, the voucher system, performance-based funding and the PPP in addition to the recently announced policy initiative by the government, the setting up of HEFA.

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Chapter 3
From State to Quasi-Market in Financing Higher Education: Russian Transition

M. Alashkevich and I. Froumin

Abstract The Russian Federation has been experiencing a transition from public sector development to a market-mediated framework for its economic growth. This paper examines changes in financing higher education institutions in Russia before and after reforming of budget and higher education policies as part of transition to market-friendly economy. Based on an analysis of the new legislative framework and financial practices, the paper argues that the new system of funding encourages university top management to be more considerate about the quality of university services and more effective in resource management. Shaping of effective internal regulations interconnected with university financial model is considered to be relevant, while the development of financial management and internal financial control is seen as additional instruments for improving the effectiveness of higher education institutions. The article concludes that enhancement of legal and financial conditions of public higher education institutions determined their new status as independent subjects of economic relations who are capable of competing on the market of education services and research.

Keywords Quasi-market · Resource management · Financial management · Key performance indicators · Differentiated funding · Market-based funding

Introduction

This article considers premises for and directions of changes in the financing system for state higher education institutions (HEIs). It states that, until recently, state financing of HEIs was allocated almost exclusively on a fixed basis, disregarding in-progress metrics related to visible university achievements, and distributed unevenly among HEIs in different regions of the Russian Federation. There are analyzed

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changes in the higher education system for the last several years, including budget cuts, massification of higher education, onset of a two-level educational system (Bachelor's and Master's degrees), introduction of an option of providing paid services. The article states that, together with drawbacks of the former funding system, recent changes in the system of higher education lead to its degradation. Despite positive transformation being already in progress, the authors believe that there must be carried out a series of actions directed to ensuring economic autonomy of HEIs, creating conditions for competition of HEIs for state financing, implementing effective and modern approaches to organizational and economic management within HEIs.

The Difficulties of Transition

Over the past 25 years of Russia's most recent history as a market economy, the country's public education sector has been adopting the new market-based or quasi-market operational framework in a slow-paced and largely inconsistent manner. For one thing, in the last two and a half decades, Russian universities have gained prolific access to highly liberalized segments of private-pay academic and advisory services. For another, basic approaches to university public funding had remained almost unchanged for as long as 20 years. Until quite recently, state financing to higher education institutions was allocated almost purely on a fixed basis implying respective prior-period amounts as a baseline, further prorated for payroll and maintenance cost inflation only. As a rule, such funding decision-making did not consider upward or downward dynamics in a university's performance in a given period.

In fact, this funding approach was essentially irreconcilable with the vision of a university as a synergetic think tank, a talent hub uniting a host of professionals in various fundamental and applied fields. The underlying budgeting methodology involved a set of static operational indicators, such as campus floor area and payroll, while disregarding in-progress metrics related to visible university achievement. As a result, potential upside effects on university development from certain key performance indicators (KPIs) (for instance, the professor-to-student ratio, which was 1 to 10 with the bulk of universities, and 1 to 4 with top-rank ones) were severely dampened or attenuated at all, ultimately failing to provide any cumulative growth momentum.

There are another two particular features of the above-described funding system also to be mentioned. First, it should be noted that budgeting was linked to a particular cost structure (i.e., payroll, utility, procurement, transport, communications, etc.), which could be subject to revision only upon a consent at the federal authority level, often a lengthy and arduous process as such. This disruptive legacy of the former soviet state-run, administrative command economy worked to further hamper development prospects for the higher education market, as universities were restrained in their operational agility by this rigid, cost-based budget planning.

The second distinctive feature of the former university funding system refers to campus development commitments. Since expanding university estate by new premises was virtually the only option to raise extra budgetary funds, institutional leadership would typically commit major efforts to facilitate new construction. Success in implementing such on-campus infrastructure improvements was often broadly seen as the absolutely pivotal KPI for a university rector.[1]

Notwithstanding the above, the university financing framework in question had its own practical rationale and grounds for existence. Embedding a set of plain and uniform funding mechanisms, this system enabled streamlined and centralized management of the world's biggest network of public higher education institutions. Specifically, while ranking as the globe's number-one federal state by the total number of districts (there were 85 of them in 2015), Russia nevertheless has as few as 17 universities of regional subordination. To compare, as of early 2016, the Russian Education and Science Ministry, as the central governing authority, exercised direct management over 270 university main campuses and 600 branch campuses, while a further 260 higher education institutions were under supervision of yet another 25 agencies at the federal level. In 2015, these immense-scale university network numbered 4.3 million students, with more than half enrolled on a fee-paying basis.

Over the last several years, the Russian university system has substantially gained in its complexity, following a cut in syllabus majors and the onset of a two-level educational system (Bachelor's and Master's degrees) in 2009. These industry developments have served to the deficiencies and shortcomings in the legacy-driven funding allocation approach, where, as it has been already noted, no material room was allowed to account for actual university performance.

The New Approach: Key Upgrades

The adoption of new budgetary legislation and the year 2012 Law on Education, which took effect in 2014, marked in an important turnaround for the university financing framework, acting to provide a mainstay for a transition from cost-based to performance-based fund allocation. Substantively, this new approach no longer views a university as a fixed asset compound to be financed on a static basis. Contrary wise, public funding essentially aims to support and foster quality student training.

In line with this principle, Russian higher education establishments are now subject to regular performance monitoring studies and evaluations, where decisions on their multifaceted achievements and operational efficiency are made in reliance on comprehensive sets of indicators, including admission, training and research, organizational, financial, graduate employment, regional labor requirements, and other metrics.

[1] For many universities, these newly developed premises eventually turned too heavy a burden to maintain, reflecting a changed operational and regulatory environment following a transition to the new funding model.

A university's success or failure to deliver on such performance thresholds is then taken into account in an annual competitive distribution of admission quotas to enroll freshmen in bachelor's, specialist (a standard five-year university track in Russia), master's, and doctoral programs on a state-financed scholarship basis.

This updated public financing mechanism involves unified statutory per-student funding rates, as calculated for each particular course of study. The basic structure of such unit tuition costs is determined in line with specific equipment, technical infrastructure, construction, sanitation, and other requirements set forth in educational standards and other applicable regulations.

The entire national curriculum has been classified into three cost groups, for which respective standard unit funding rates are established. Group one includes a range of academic programs where no use of specialized laboratory equipment, personal training, or small-group training is implied. The tracks falling under this category are the majority of courses in economics and law, along with some programs in mathematics, language & literature, etc.

Group two spans a number of tracks in science and engineering, as well as mainstream medical training. This category implies standard per-student funding at a rate of approximately 15% above the one established for the first group.

Group three encompasses academic tracks where highly specialized training, individual instruction, or the use of expensive, advanced-technology equipment is involved. The unit funding rate for this group is double the rate applied for group one academic tracks. The most cost-intensive programs include arts, linguistics, highly specialist majors in health care and engineering, etc.

Taking into account the geographical distribution of Russian universities and a largely uneven socioeconomic landscape by region, the funding approach under discussion provides for application of differentiated unit financing rates. Thus, for instance, a standard unit funding rate in Voronezh will be roughly half the one applied for the same course of study in Moscow. Funding allocation by area is regulated through the use of regional adjustments factored into standard unit rates. These adjustment factors vary from 1 to 3.5, depending on the region's wage level, utility tariffs, etc.

The lowest factor applies to universities of Central and Southern Russia (less Moscow). The average values are used in St. Petersburg and in the economically developed regions of Siberia and Southern Far East. The highest factors apply to universities of the Russian Arctic, Northern Far East, Siberia, and Moscow.

While this differentiated funding approach may be deemed as economically justified, particularly in an environment of resource scarcity, it also leads to a greater fragmentation and inequality within the national university system. In particular, it is higher education institutions of Central Russia that are affected most, as their financing is virtually thrice as little as that of Moscow-based universities, despite the formers' close proximity to the Russian capital. This naturally works to propel academic labor migration, with faculty and staff seeking relocation to Moscow, where a way more competitive compensation and benefits are offered. Accordingly, an expanding influx of top-skill educational professionals gives Moscow-based universities a major market edge over their regional peers.

At the same time, the regional adjustment factors used in funding allocation are in line with overall economic patterns observed in a particular area of Russia. This allows regional universities to stay competitive against corporate and public entities operating in the same locality. Overall, given low labor mobility in Russia, the above-described feature of the new funding model appears robust enough, despite some expert criticism on the matter.

Apart from regional differentiation, the newly introduced system of university public funding involves another two adjustment factors. The first one, which applies in training special-needs students, provides for a double standard unit funding rate for either cost group of academic tracks. In addition, 46 universities in Russia are entitled to deploy their own educational standards, which are national research universities and a number of universities distinguished for exceptionally high academic excellence. In channeling funds for these institutions, an upward factor is applied, which reflects a university's research outputs, publication productivity, as well as, applicant entry test scores. Upward adjustments are made in this case to standard values of each performance indicator, allowing institutional leadership to understand which areas need to be improved on to ensure that the highest upward factor will become applicable.

While using such performance-based adjustments may drive funding rates upward or keep them flat, depending on the actual case, the underlying mechanism enables transparency in the fund allocation process, allowing university executives to get a clear vision of which operational areas can make out the best of this budget funding headroom and which ones still need to catch up. Ultimately, this approach works to promote a more balanced and effective development strategy.

The total amount of public funding in a given year is derived as a product of total state-financed scholarship enrollees under each academic track and the resulting unit funding rates after relevant regional, performance, and other adjustments as outlined above.

In other words, the upgraded public financing framework involves the Russian State acting as a customer in the university education sector, thus placing the new funding system drastically apart from the former Soviet and post-Soviet models. These new relationships are based on uniform principles and take place in a market environment where universities, as 'service vendors', compete to secure a 'larger, higher-worth order' from the state (i.e., to procure a greater quota for public-financed scholarship admissions).

This fair, streamlined market-based funding approach, where both qualitative and quantitative performance indicators are accounted for, should encourage university executives to emphasize systems improvements in the quality of education, effective financial and economic planning, and responsible resource use.

While these positive changes are already taking place, a major imperative to focus on is deploying a set of meaningful measures aimed at equalizing competitive market conditions, which should help mitigate risks of curtailed access to quality training amidst possible reduction in a branch campus network.

The above-discussed public funding system is by no means the only fundraising option available to Russian universities. Higher education institutions are entitled to

provide a range of fee-paying services, based on the state-owned campus infrastructure which is currently under their immediate management and operation. However, since the Russian State is no longer responsible for maintaining such real property assets, tuition fees charged should be commensurate with respective standard per-student funding rates (state-financed scholarships).

Other sources of funding include a provision of research, advisory, and expert assessment services. While fully available for entry, these markets still lack university participation, this associated with lasting negative effects of the former cost-based public financing system. Obviously, many academic leaders have not yet fully realized the potential of a greater autonomy and agility in financial and operational management, brought by the recent regulatory changes.

To conclude, with the above-discussed upgrades in the legal and financial frameworks, public universities can be now viewed as independent economic entities operating in a competitive market environment of educational, research, and other services.

The New Operational Environment: University Response

Prior to the public funding reform, universities used to almost entirely rely on the state budget allocations, which were supposed to cover 100% of their spending. Paid services were largely perceived as an optional (though sometimes apt and substantial) income source, and the respective fees charged would not typically accommodate for the COGS component.

As mentioned above, the new Law on Education has marked a major turning point for the sector, entrusting universities with greater authority in designing and implementing their curricular, research, strategy, and local regulations. This has provided an important market incentive fostering higher education institutions' business vision and engagement in for-profit operations. Thus, between 2013 and 2016, university proceeds from income-generating activities grew 1.3 times, accompanied by an increase in research & development receipts (Electronic Report). Notably, the amount of R&D funds raised directly affects respective public financing (in fact, co-financing) volumes channeled to leading universities, which further drives the rationale for tapping into the paid service market.

The recent transformations in the higher education financing approach have enabled a liberalized, more vigorous and flexible environment where universities are now well placed to take advantage of their expanded self-governance and independent decision-making capacity; this also requiring the market participants to take up a greater responsibility in every aspect of their operational agenda. The Russian State no longer acts as a 100% controlling regulatory authority, having assumed an updated, market-driven role of monitoring, analysis, and overall supervision. Obviously, in this upgraded environment, much of a university's success in building a lasting competitive edge depends on deployment of effective and up-to-date in-house approaches to organizational and economic management.

At the same time, the state is also expected to deeply rethink its industry interaction model, where the principal focus must be placed on further encouraging cooperative, partner relationships with universities. The extent of government participation in the higher education sector is determined by the following three inputs:

(i) The volume of state educational order (i.e., the amount of quotas for state-scholarship admissions, distributed on a competitive basis) by the number of enrollees receiving training within a uniform educational standard framework, but in unique academic tracks developed by particular universities.
(ii) A transparent public funding allocation mechanism, where total financing granted is in fact the amount of state-financed scholarships won by a university based on its performance in a given period (i.e., total state-scholarship enrollees in each academic track, multiplied by the respective standard per-student funding rate after applicable regional and performance adjustments).
(iii) Financial resource management regulations, which entitle universities to various degrees of autonomy in managing their earnings, depending on the type of income.

Amidst the shrinking real household incomes (Grigoriev, 2016), over the past several years, Russian universities have faced a reduction in paid service volumes, this ultimately affecting their financial standing. To reiterate, although scholarship admission quotas are distributed and monetized solely by the Russian State, higher education establishments, as now operating in a competitive market environment, are also entitled to provide similar tuition services for fee. Such private-pay academic courses primarily enroll those applicants who have failed to qualify for full-tuition scholarships.

Today, the average funding split for a Russian university is 56% of public investment, and 44% of funds generated by for-profit activities (Electronic Report). At the same time, such actual earning structures vary significantly across the industry, with some players exhibiting up to 80:20 scholarship-to-market-earned fund ratios, or, vice versa, 20:80 earning splits (Bespalov, 2012).

What has been discussed required singling out two levels of expected transformations in the sector's planning and administration. First, systems changes will be required in the state-run policies and procedures with respect to managing the country's higher education. Second, universities themselves should give a major overhaul to their leadership and administration frameworks.

Updating Financial Management in Higher Education: State Implications

As we have already noted, the state is expected to deploy a new university management system, where the principal emphasis will be placed on building the pillars of partnership and mutual responsibility. What is central to this upgrade is ensuring a plain and transparent communicative environment, where the policymaker would

comprehensibly articulate its principles and procedures underlying the budgeting and allocation process, while the market would be able to become familiar with these key economic inputs well in advance, which would definitely underpin clearer and more feasible financial planning. Naturally, such unambiguous and realistic budgeting would, in turn, enable more accurate, definite, and longer-term operational planning, ensuring greater flexibility and functional headroom. Unfortunately, so far, this has not always been the case because university planning is often hampered by last-minute funding resolutions communicated virtually at the break of a new financial year. This lag is primarily explained by rather loose timing with critical decisions at the federal level, including, for example, the timeframe for reviewing and passing the national budget.

At the same time, the updated overall mechanism of government investing in the higher education sector, with a transparent environment of unified KPIs and accessible peer performance data, allows comprehensive benchmarking of in-house operational and financial management systems, drawing on conclusions about the competitive landscape around. This should foster a more robust and streamlined approach in terms of both long-run strategic planning as well as current operational priorities.

The upgraded model of university public investing, where market-driven, performance-based logic has been finally placed at the bedrock of decision-making, can be well replicated when it comes to the domain of monitoring university financial management systems and economic efficiency. As in case with public funding, such a KPI-centered approach would enable representative, easy-to-benchmark data and analytical tools that would certainly help build better-quality overall industry administration, while also facilitating universities in implementing their own financial governance instruments. To be more specific, a possible monitoring and evaluation framework could envisage a management quality ranking system, which would work to further spur market competition, promote best practice exchange, and give another momentum for more robust leadership.

Such financial management quality ranking was in fact implemented in Russia in 2016. As a part of introducing this initiative, the Russian Education and Science Ministry has published its key terms and a list of KPIs involved, where the key KPIs include, inter-alia, what is referred to as the University Autonomy Indicator (UAI), a ratio that in a sense reflects the corporate finance principle of ‘financial leverage’, as a rough approximation. The UAI is a factor of a university’s total market-raised funds to its total public financing in a given period. When a UAI value is greater than one, this indicates that the university has sufficient financial independence and agility. There are also other KPIs, each aiming to assess the efficiency of a particular aspect in financial management. The operating-to-development cost coverage ratio, for instance, describes how much it is expected to plow into university growth and expansion, indicating whether financial planning has been prudent enough to ensure an adequate long-term momentum.

This financial quality evaluation system provides for regular public disclosure of the resulting university rankings, a major spur for industry improvements and competition outright. Above that, top 10 universities are entitled to management excellence bonus funding of up to 5% of annual public-financed scholarships (Electronic Report).

As we have noted before, the state no longer exercises ultimate industry control and regulation, now acting as the key education market customer and beneficiary in long-term, nation-wide socioeconomic outputs delivered by this sector. Accordingly, the state should seek to convey its policy vision and key development priorities in a manner that is absolutely plain and lucid for all the market participants, whereby realizing its capacity of overall industry monitoring and supervision within a multifaceted framework of performance-based penalties and incentives. At the same time, no direct interference with university management is implied. Increasingly efficient-independent resource planning and financial management should become an unwavering industry standard and imperative for every party involved.

Except for circumstances where systemic failures in planning, major negligence, or severe legal violation will reasonably require adequate regulatory and/or punitive measures to be taken, this model of partnership and mutual responsibility should otherwise almost entirely rely on the use of market incentives. For example, bonus investments may be introduced in recognition of operational success and financial management best practice. Such 'achievement and excellence benefits' are of paramount importance at the current post-transitional industry stage, when the adoption of new, market-driven operational and management culture is only underway, requiring largely revised skills, approaches, and values with the vast majority of university leadership. It should be noted, however, that the key prerequisite for this positive upheaval to take place would be a tangible ramp-up in total the public funding channeled to the educational sector.

Overall, the following key factors may be viewed as impeding the university market transition to more effective and quality financial management:

(i) Lack of in-house financial policies streamlined with university strategic agendas.
(ii) Low financial literacy with many university executives.
(iii) Poor alignment of in-house financial functions with the nature of core university operations (training and research); vague understanding of financial management approaches and requirements involved in a university environment; insufficient incentives to advance better and higher quality financial management.
(iv) University staff inaptness to effectively adopt modern financial management tools.
(v) Poor planning of proceeds from for-profit activities and other non-public receipts.

The external factors that should support enhancements in university financial management are the following:

(i) Further monitoring and analyzing the financial performance of the Russian public university market.
(ii) Expanding the financial management quality ranking system in place.
(iii) Deploying training & professional development initiatives to advance financial literacy and nurture relevant technical and administrative skills at various staff levels.

Updating Financial Management in Higher Education: University Implications

In an increasingly competitive, market-driven operational environment, universities can thrive only by securing a sustained edge in their independence and financial capacity. Central to delivering on this objective is deploying unambiguous and streamlined business processes, together with a sound financial management system that would work to underpin university progress in implementing its strategic goals.

Universities should strive to achieve a robust balance in managing various aspects of their business and finance, including a special emphasis on improving the performance in paid service segments, which, as we have already noted, is crucial to allow for greater financial autonomy and operational agility. In doing so, both the quality and the price competitiveness of the for-fee service offer should be carefully considered.

Practical evidence suggests that distributing financial management responsibility among various university functions often pays off by largely improved performance across organizational units. One of the key instruments in fostering the more effective use of financial resources and other tangible assets is the internal control and audit system, whose primary role is to better align and fine-tune the business processes in place, from planning and through reporting, generating synergies from their streamlined and smoother interplay.

At today's transitional, quasi-market stage, it is essential to draw a clear distinction between external and internal financial control frameworks. As we have noted, the authority for taking punitive measures in response to severe operational or legal violations shall keep with the state; however, such external interference will be gradually tapering off as partnership-based relations expand and proliferate. All at once, universities will focus on upgrading their corporate control and audit functions in line with the new industry model, whereby propelling in-house-driven efficiencies from better planning, self-regulation, and staff engagement and performance.

Ultimately, effective financial control should allow the seamless running of all business processes at the heart of university sustainability, while also providing an adequate mechanism for agile response to any deviation or operational derailment, enabling leadership to timely cope with any such issue.

Amidst a major turnaround taking place in the Russian university market, there has been a growing trend toward comprehensively revising and reshaping the status and function of university planning and finance units. In recent years, they

have been actively transforming from largely overstaffed, antiquated approach, routine calculation-focused corporate divisions into advanced-intelligence think tanks inspiring the sector's new-era operational modes and business-driven visions. These changes are supported by:

(i) Top-skill staff and modern IT and automation tools.
(ii) Availability of aggregate key financial and economic data.
(iii) The role of a university's business analysis and forecasting hub.

To reiterate, while the state will progressively curtail its direct involvement in university management, it should nevertheless provide clear and uniform industry guidance within the following monitoring and regulatory frameworks:

(i) Academic:

   a. Compliance with the Federal State Educational Standards.
   b. Compliance with the state licensing and accreditation requirements.

(ii) Organizational and financial:

   a. Delivering on social and welfare commitments (compensation & benefits, etc.).
   b. Fulfilling state-financed (scholarship based) training and research orders.
   c. Delivering on premises and facilities management KPIs (since universities do not directly own but are only entitled to manage their estate).

Therefore, within conditions created by the changes taking place, there increases importance of an introduction of the system for monitoring and regulation. Such system will allow for decision-making to be based on objective finance data and other operational details, and such organization of work will increase objectivity of evaluation of universities' financial state and decrease risks.

Conclusion

The changes in the system of higher education that are being observed, together with drawbacks of the previous financing system, need reconsideration in terms of the strategy for allocation of budget funds to HEIs and relations between the state and HEIs. Special attention must be given to state procedures for managing higher education in the country and reconsideration of approaches to organizational and economic regulation within HEIs.

Russian state released its former total control over activities of HEIs and took a new market role of organizing monitoring procedures, analyzing resulting data, and making political decisions on the basis of it. Evidently, in such conditions and within the situation of growing competition and market conditions, universities can only thrive thanks to stable fortification of their independence and financial potential. The core actions directed to achieving these goals are creating clear and organized

business processes and creating a reliable system of finance management that will promote progress of a university in its movement toward strategic milestones.

It is also expected that the government will deeply reconsider the interaction model of its industries. Emphasis must be put on further development of relations of cooperation and partnership between the state and universities. However, on this stage, there must be drawn a distinctive line between inner and outer mechanisms of finance control. The state must remain responsible for implementing punitive measures in response to serious operational or legal violations, but this responsibility may slowly shift from the state with fortification of partnership between it and HEIs.

Subsequently, long-term success in the implementation of market improvement and transformation in financing of HEIs is possible only in case universities will serve as market-makers and release all their potential for an optimization of business operations within the framework of a sensible and coordinated management strategy. At the same time, developing this imperative requires deeper insight of such issues as limits of state intervention, interaction between pragmatic business arrangements and long-lasting social and cultural values in the academic sphere, and dilemma of competition and accessibility.

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Chapter 4
The Entrepreneurial University

Bikas C. Sanyal

Abstract Entrepreneurial universities find their emergence and evolution from the time when public funding was on the decline. The diversified sources of funding resulted in a strong steering core to meet the diverse needs of students through diversified programs. They will facilitate students, staff and faculty to establish links with business, industry and community and value both innovation and execution. Entrepreneurship is at the core of the mission of the institution and this idea permeates the whole institution. Entrepreneurial universities impart the skills such as leadership skills (strategic thinking), exploratory skills, managerial, communication, negotiation and lobbying skills. Entrepreneurial universities may have four types of programs: (i) program for "routine entrepreneurs'" who are good at reproducing their businesses; (ii) program for "arbitrageurs" who can make use of discrepancies in the production factors, valuation of products and assets; (iii) program for "innovators" who are good at putting new ideas into practice; and (iv) program for "evolutionary entrepreneur" who is good at building new competencies or capabilities.

Keywords Entrepreneurial university · Endowments · Social entrepreneurship · Spiritual entrepreneurship · Economic entrepreneurship · Entrepreneurial attributes

Introduction

There was a common belief that entrepreneurs are born not made (Shane, 2008). This would have undermined the role of entrepreneurial universities. But recent research shows that entrepreneurs are not always naturally born. Entrepreneurship is actually not a destiny, but a qualification. It is the qualities that make entrepreneurs successful. Moreover, the qualities are not inherent, but gotten through education and experiences (Business Essay, 2015; Daley, 2013; Garrett, 2011).

Burton Clark defined the entrepreneurial university as follows.

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> we find the entrepreneurial university to be a place that diversifies income to the point where its financial portfolio is not heavily dependent upon the whims of politicians and bureaucrats who occupy the seats of state policy, nor upon business firms and their "commercial" influence, nor even upon student tuition as main support. Funds flow not only from such well-defined sources but also, crucially, from a host of public agencies (other than the core support ministry or department) and alumni and other private donors who provide moral and political support as well as direct year-to-year funding and accumulation of endowment. Effective stewardship comes to depend not on the state or on "the market," but on university self-guidance and self-determination. The entrepreneurial university does indeed provide a new basis for achievement. (Clark, 1998).

The entrepreneurial universities can have "diversified" sources of income through "self-guidance and self-determination" applying the skills of entrepreneurship.

Examples of Entrepreneurial Universities:

> In India, the Birla Institute of Technology (BITS) with its human resource development program executes continuous professional development in industries through distance (Sanyal & Johnstone, 2011).
>
> The Union of Small Industries in the State of Sao Paulo in Brazil approached the University of Sao Paulo to create a user-friendly interface in order to facilitate access of small companies and entrepreneurs to USP's body of knowledge for financial advantage of both (Sanyal & Johnstone, 2011, ibid).
>
> The Gatsby Trust, a non-governmental organization, established in the Faculty of Technology in Makerere University, Kenya, assists in developing the technological base of the small enterprise sector of Uganda and helps the sector's growth with financial returns (Sanyal & Johnstone, 2011, ibid).
>
> In the USA, most of the major state universities have increased their non-state funding to around 70 percent of their total income. In Colorado, it rose to 84 percent (Shattock, 2004).
>
> The Tyumen State Oil and Gas University of Western Siberia in Russia has increased its share of non-state ('off-budget') income to normal income from 75 percent in 1998 to 85 percent in 2002 (Karnaukov, 2004).
>
> The most enterprising university in our list is the Orel State Technical University of central Russia. Through its Educational Research and Innovation Complex (ERIC), it has been able to create three times more training programs, increase laboratory and class room space by 8.5 times, registered patents by 5 times, volume of research and development by more than 8 times in a period of 7 years (Golenkov & Stepanov, 2004).

While universities all over the world are now focusing on insertion of entrepreneurship in some form or other, some measures of the degree could be useful. If the number of startups could be used as a partial measure of entrepreneurship in universities/higher education institutions and a startup with a valuation of more than one billion dollar is called an Unicorn across the globe, Stanford tops the list with 51 Unicorn founders followed by Harvard with 37, University of California with 18 founders and IIT group with 12 founders. In the world, USA tops the list with 144 unicorns, China with 47 and India took the third place with 10 (Ayyar, 2017).

Entrepreneurial universities as defined above by Burton Clark focuses mainly on economic entrepreneurship generating additional income measured by commercialization of activities through profits and revenues without taking account of social issues which are being of increasing concern of today's universities. This will be discussed below.

Entrepreneurial Universities: The Role of Social Entrepreneurship

Social entrepreneurship helps develop, fund and implement solutions to social issues such as social injustice, inequality, extreme religious and ideological radicalism, greed and corruption, moral and ethical issues; cultural issues such as "ethnic cleansing," lack of intercultural understanding and dialogue and environmental issues such as excessive exploitation of natural resources, misuse and abuse of them and the phenomenon of global warming among others. The university with social entrepreneurship programs will generate a positive return to society including additional income, while belonging to non-profit or "blended profit" sector. To achieve social, cultural and environmental goals, their work will include additional areas such as poverty alleviation, health care and community development.

To demonstrate the extent of social entrepreneurship programs around the world, the Global Entrepreneurship Monitor (GEM) reports the largest comparative study of social entrepreneurship in the world based on interviews with 167,793 adults in 58 economies in 2015. This shows that there are more social entrepreneurs than commercial entrepreneurs in every global region, except for Latin America and the Caribbean. It was also shown that the USA and Australia report notably higher proportions of operational social entrepreneurs with a high level of education (62 percent), while in Middle East and North Africa (MENA), Eastern Europe and Western Europe around half of operational social entrepreneurs fall in that category, (Global Entrepreneurship Research Association GERA, London Business School, UK, 2015).

Unlocking the Potential of Social Entrepreneurship in Higher Education Report published jointly by the Higher Education Funding Council of England (HEFCE) and UnLtd, the Foundation for Social Entrepreneurship observes that 238,000 people are starting a social or community venture in the UK every year. This is particularly prevalent among those in full-time education and graduates. To respond to this phenomenon, many English entrepreneurial universities are now incorporating in their curriculum these programs. The HEFCE has joined hands with the UnLtd to have inspired 70 institutions to engage in this new approach. In addition to improve employability, social entrepreneurship increases funding and student demand (HEFCE) and UnLtd. Moreover, "Social entrepreneurship enhances teaching, research impact and staff development benefits which multiply as they are passed on to students" as observed by Sir Alan Langland's, Chief Executive, HEFCE and Cliff Prior, Chief Executive, UnLtd, (Alan & Cliff, 2013).

The Oxbridge University, University of Arts, London, and University of Northampton, among others have strong programs of social entrepreneurship in the UK.

Some cutting-edge examples of social entrepreneurship in the US universities are to be found in Ashoka U an organization with headquarters in Virginia which is promoting social entrepreneurship collaborating with universities and colleges all over the world. In the USA, there were 17 universities as of 2013 and among them are Northwestern University, University of San Diego and Brown University (Pendoley, 2013).

In India, in addition to the institutions collaborating with Ashoka U and non-governmental institutions of higher education of philanthropic nature, the Narsee Monjee Institute of Management Studies, Mumbai, the Indian Institute of Management, Ahmedabad and the Tata Institute of Social Science run programs of Social Entrepreneurship (Gupta, 2017; Pendoley, 2013).

More recently, a third dimension of entrepreneurship is being of important concern which has not yet been given consideration by the higher education authorities. The so-called successful higher education may provide money and fulfillment of materialistic desires of people but cannot make them live a happy and peaceful life. Insertion of properly managed spiritual entrepreneurship in higher education program articulated by yoga and meditation may provide happiness and peace of mind while increasing funding through these spiritual practices irrespective of religions and ideology as will be seen from the examples given below.

Entrepreneurial Universities: The Role of Spiritual Entrepreneurship

The main objective of the students to pursue higher education had so far been employability and accumulation of wealth through good income. The market-oriented, competitive, consumerist society generating a lot of unsatisfied greed among the learner community is creating important mental and physical stress and unhappiness. In respect of the employment market, the phenomenon is similar as noted below.

"An international report by the World Health Organization reveals that depression is the most disabling illness for the corporate sector, second only to cardio-vascular diseases. Long hours, multi-tasking, stiff competition, rigorous commute, irregular working and eating habits, are creating a pool of highly stressed, inefficient and thus despairing workforce. The National Institute of Mental Health estimates that U.S. employers lose $70 billion a year due to absenteeism, lost productivity and disability caused by mental distress" (Corporate Wellness Magazine, 2017).

Yoga and meditation, two important aspects of spiritual practices, encounter this malaise to the extent unmatched by other wellness programs. Yogic discipline is a mind–body balance. Yoga also helps boost morale and interpersonal communication—which for an employer means no more bickering teams or dissatisfied individuals, power struggles or dirty politics (Lohia, 2017).

According to Yoga Journal, 80 million Americans were likely to try yoga for the first time in 2016. Yoga studios are expanding (Lovering, 2017).

According to a report by the Beijing-based Daxue Consulting (Times of India, 2017), the yoga market in China is growing rapidly with the number of people involved in its practice rising from 4 million in 2009 to 10 million in 2014. The report continues to say that the yoga industry in China is growing at an annual rate of 20 percent!

The people around the world are now looking for spiritual training and education which has become a multimillion dollar business often run outside of the higher education sector leaving a lot of space for income generation by the sector, while providing a great service to the society.

As mentioned above, the spiritual education most popularly uses the techniques of yoga and meditation to unite the body and the mind. The Secretary General of United Nations, Ban-Ki moon, recognizing its universal appeal and had the following to say in this respect on December 11, 2014, in the United Nations General Assembly which adopted the resolution proclaiming June 21 as the "International Day of Yoga" draft resolution on International Day of Yoga (UNGA, 2014).

"Yoga is an ancient physical, mental and spiritual practice that originated in India and is now practiced in various forms around the world. The word "yoga" derives from Sanskrit and means to join or to unite, symbolizing the union of body and consciousness. Yoga balances body and soul, physical health and mental well-being. It promotes harmony among people, and between ourselves and the natural world" (Ban Ki-moon, 2014).

The resolution proposed by India was accepted by all the 177 member states present in the general assembly, first time in the history of such support for a program.

On December 1, 2016, yoga became listed as UNESCO's intangible cultural heritage (UNESCO, 2016).

Yoga has thus become a useful program to be tapped by higher education to generate income while providing the society a useful service.

In India as of 2015, there were over fifty recognized universities offering yoga degrees and certificates in India at different levels. This excludes all institutions which do not have "university" in their title.

The first UNESCO Chair on Yoga was established in December 2012 at Ramakrishna Mission Vivekananda University (RKMVU), Belur, Howrah, in its campus in Coimbatore, Chennai, within the framework of its activities in the field of inclusive adapted education and yoga (RKMVU, 2016).

In the west where yoga and meditation have been very popular at non-university institutions run by NGOs, recently some universities have started to appreciate these programs of spiritual practices.

University of Westminster, England, has launched the "Big UK Yoga Survey (BUYS)" to find out why people practice yoga, how they practice and how they feel it affects their health and well-being with the objectives of selecting, designing and implementing suitable spiritual entrepreneurship programs and to have their future directions for interested universities (BUYS, 2017).

Scottsdale Community College in Arizona, USA, has introduced a program recently on yoga and meditation (Scottsdale Community College, 2017).

Professor Chris Streeter's work in the University of Boston Medical College on the subject is getting recognition in the medical world in the USA (Tripp, 2013).

Roadmap for Entrepreneurial Universities: three types of challenges:

Economic Challenges

In economic sphere universities have to confront the scarcity of funding while facing the challenges of a knowledge-based, market-oriented, globalized and networked economy, impacts of the "General Agreements of Tariffs and Trade," making higher education an internationally tradable commodity, the recent phenomenon of "Brexit" of UK and the "America First" phenomenon of the USA affecting their own university policies and of countries collaborating with them.

Social Challenges

In the social sphere, universities have to face the challenges of social issues such as social injustice, inequality, extreme religious and ideological radicalism, greed and corruption, moral and ethical issues; cultural issues such as "ethnic cleansing," ideological and religious intolerance, lack of intercultural understanding and dialogue and environmental issues such as excessive exploitation of natural resources, misuse and abuse of them and the phenomenon of global warming among others.

Spiritual Challenges

These challenges result in an environment of uncertainty and complexity. It is the levels of uncertainty and complexity in any environment and the associated threats and opportunities that dictate the need for entrepreneurial response (Coyle et al., 2013: 10). Universities being the bastion of innovation, knowledge and wisdom have the responsibility to provide that response as noted by Professor Andrew Hamilton, Vice Chancellor, University of Oxford:

> Why should an 800 year-old university, steeped in tradition and renowned for its ancient buildings and gleaming spires place a strong emphasis on entrepreneurship, innovation, change and the impact of our endeavors?" … He continued "We want to know and explore because with knowledge and exploration come the possibility of change, of making a positive impact and of meeting the many challenges of life in the 21st Century. Hamilton (2013)

But these responses need special characteristics of which an attempt for an exhaustive list is given in generic form below to be attributed selectively to the type of responses needed.

Characteristics of Entrepreneurial Universities: An Attempt for an Exhaustive List

(i) Taking local traditions to global destination (e.g., through an integration of spiritual, social and economic entrepreneurship).
(ii) Having a diversified funding base and a strong steering core (meeting both economic and social causes).
(iii) Meeting the diverse needs of students through diversified programs, including programs on business ethics and social values (see later for the skills needed).
(iv) Facilitating their students, staff and faculty to establish links with business, industry and community as they would be needed.
(v) Preparing students/trainees not only for smooth passage to employment but also developing human resources capable of putting innovative ideas to practical use and to generate income for economic, social and spiritual causes.
(vi) Creating science parks, incubators and associations with the industries and communities outside.

To acquire the above characteristics, the universities would need adequate educational programs as noted above to appreciate the importance of education in developing entrepreneurship in economic, social and spiritual contexts. The programs are discussed below; for all three contexts, not all of them would apply to a particular context.

Educational programs of entrepreneurial universities

The programs of entrepreneurial education for students should equip them with capacities of taking initiative, building networks, taking risks and using judgment before taking calculated risks.

Entrepreneurship requires certain inherent qualities such as a strong sense of independence and ownership, joys in making own efforts, belief in hard work and in freedom of action.

Entrepreneurial education and training depends upon certain attitudes. These are: achievement orientation, self-confidence, diligence and perseverance, desire for autonomy, learning by doing, strong sense of commitment and determination, capacity for innovation, Courage to continue the pursuit of desired goals despite uncertainties, vulnerabilities and periodic failures.

Entrepreneurial attributes require skills involving: leadership (strategic thinking), managerial, communication, exploratory skills seeking opportunities and looking for unexplored available resources to be exploited (e.g., solar energy), self-learning and self-employment skills, negotiation, selling/lobbying skills.

The faculty has to orient themselves to conduct these programs in an effective way with the help of the staff and with support from the university.

Entrepreneurial University: An innovation in financing of higher education (Sanyal, 2013).

As mentioned in the introduction, the main focus of entrepreneurial universities is on raising funds for economic, social and spiritual causes. I mention below twelve

broad areas of income-generating activities grouped from fifty-two; they may engage to undertake if they fit in their socio-economic cultural context. Some of these activities may be irrelevant for some institutions. Appropriately selected and designed, the benefits from such activities can also serve social and spiritual causes.

(a) Provision of services

Full cost short courses, continuing education; private students; self-financed students, consultancies, professional services; from professional departments, testing of materials, products and processes, authentication, certification and approval services, bureau services; from under-utilized facilities, access to information, access to computing, provision of audio visual services, provision of technical skills.

(b) Sale of Products

Patents, license to manufacture, prototype building, publishing, computer software

(c) Use of Physical Facilities

Renting existing facilities when they are not in use: unused land, teaching rooms, lecture halls, studios, laboratories, workshops, social rooms, car parks and unused space, sport facilities, cultural facilities,

Renting of new facilities: renting of space for offices of university academic professionals allowed to practice outside, food shops, stationary shops; travel agency, post office, bank, news agents, hair hairdressers; charging monthly or annually for license to vendors of useful goods and services

(d) Residence, Catering and Conferences

Charging market rate of rent to well to do students, renting rooms for external conferences or other suitable users during vacation periods, leasing private sector accommodation for students and charging room rents including management costs, opening up catering facilities for members of the public and providing catering services away from the Institutions on casual basis or permanently for other organizations, use of student halls of residence during vacation for lodging external participants, building facilities for conferences or short courses for whole year and charge regular fees for users, both external and internal.

(e) Inward Advertizing

Institutions have a large permanent market with reasonably well to do customers for advertizing opportunities through publications, databases and physical sites.

(f) Provision of Internal services

Establishment of employment agency for students, sale of computer disks, software, hardware, discounted membership of private medical insurance scheme; discounted purchase of books, equipment, goods and services from suppliers; provision of coin or card operated photocopying machines; sale of previous examination papers, postcards, maps, diaries, Christmas cards and any other publicity print materials related to the institution

(g) Recycling

Sale of used computers after renovation, used book sales, sale of old clothes, furniture and equipment, waste paper, aluminum cans, used laboratory materials.

(h) Award Ceremony

The ceremony being held during holidays allows income from rents halls of residence to participants; charging fee for participation and additional fee for guests. Additional income may be generated from charging commission to the company renting gowns; photographic and video companies, selling general souvenirs of the institution; seeking donations from philanthropists invited for specially for the ceremony.

(i) Brokerage Function

Helping small- and medium-sized enterprises to locate external funds for their research and development (R&D) and training.

Accepting contract for providing services hiring external staff on subcontract basis; franchising short courses to other institutions.

Providing staff for services to other organizations on management contract.

(j) New delivery modes

Running full cost courses on distance learning mode (e.g., different forms of e-learning) for home makers, working population, retired people looking for education for pleasure.

(k) Investment

Management of cash reserves and cash flows ensuring high returns from investment with minimum risk.

(l) Charity Shows

Special spectacles on reasonable entrée fee for specific development projects.

Once the financial aspects of entrepreneurship programs are dealt with, one can engage in developing strategies for effective management of these programs.

Strategies for Effective Management of Entrepreneurial Universities

Based on Sanyal (2012) and taking hints from the Final Version dated 18 December 2012 of "A Guiding Framework for Entrepreneurial University" published jointly by the European Commission and the OECD (OECD, 2012), the following strategies for effective management of entrepreneurial universities are suggested. As mentioned before, these strategies also are to be adapted to the different contexts.

Strategy 1 Institutional Governance and Leadership:

(i) The mission statement of the University should explicitly mention entrepreneurship as a major part of the university strategy having strong commitment of its implementation

(ii) The leadership should ensure coordination and integration of its programs at all levels across the university

(iii) The faculties and departments should be given autonomy for entrepreneurship development in the wider regional, social and community environment.

Strategy 2 Management of finance and personnel of Entrepreneurial University:

(i) The university's entrepreneurial objectives are to be supported by an effective financial management mechanism for entrepreneurial development with a wide variety of funding sources, including facilitating access to private financing for its potential entrepreneurs and to business incubation facilities. The staff should be trained in modern financial management techniques. Appropriate incentive mechanisms are to be provided for those for those who actively support the university's entrepreneurial agenda.

The university's management strategy should also have a personnel management strategy which will breakdown the traditional boundaries among the staff and students building synergies between them. Its recruitment criteria should emphasize on entrepreneurial attitude, behaviors and experience and it should support staff development.

Strategy 3 Entrepreneurial Strategy in Teaching and Training/Learning

(i) The university should be structured in such a way that a culture of entrepreneurship and innovation cuts across in teaching and learning of all disciplines and entities in their content and method of delivery, starting from techniques of self-learning, creating awareness, providing motivation and stimulating ideas through development and implementation involving as much as possible external stakeholders. Mentoring of students by academic and industry personnel and opportunities for self-employment and entrepreneurial experience from industry and community should be provided. Research results on entrepreneurship education and training should be integrated into the programs (e.g., University of Westminster's "BUYS" program for spiritual entrepreneurship). The learning outcomes are to be validated against set objectives.

Strategy 4 Universities—Business—Community/External Relationships for Knowledge Exchange (Qamariah & Muchtar, 2021: 1240).

The University

(a) should be committed to collaboration and knowledge exchange with industry, society, other education/training institutions of similar nature and the public sector creating opportunities
(b) demonstrating active involvement in knowledge exchange partnerships and relationships
(c) developing strong links with incubators, science parks and other external initiatives with a wide range of stakeholders
(d) supporting staff and student/training mobility between academia and the external environment and

(e) linking research, education and wider community activities together to affect the whole knowledge ecosystem.

Strategy 5 Managing the Entrepreneurial University as an internationalized institution

(i) The entrepreneurial university should explicitly support the international mobility of its staff and students (including PhD students).
(ii) It should seek and attract international and entrepreneurial staff (including teaching, research and PhDs).
(iii) Its teaching—learning strategy should demonstrate its international character in content, structure and methods of delivery.

Strategy 6 Measuring the Impact of the Entrepreneurial University

(i) The university should have mechanism to assess the degree of implementation of each of the above strategies taking into consideration the contextual differences of each type of entrepreneurship: economic, social and spiritual
(ii) It should carry out regular monitoring and evaluation of its performance in programs of entrepreneurship and revise the program as and when necessary.

Once the universities have incorporated the social and spiritual entrepreneurship programs accreditation of their programs for their quality control and inter-institutional co-operation should be in order. This is discussed below.

Accreditation of Entrepreneurial Universities

Although the accreditation of traditional universities is being practiced for a long time attention paid on universities to become more active in both economic and social entrepreneurship is recent. The question of accreditation of spiritual entrepreneurship is yet to be considered. To facilitate accreditation of economic and social entrepreneurship programs, an Accreditation Council had been set up, in collaboration with University-Industry-Innovation Network with headquarters in Amsterdam. Comprised of world-leading experts, the council with acronym ACEEU has designed the world's first accreditation program for entrepreneurial universities incorporating both economic and social entrepreneurship programs. Those focusing exclusively on social entrepreneurship are being called "engaged" universities (ACEEU, 2017). This may include spiritual entrepreneurship programs as well.

The accreditation process remains the same as that of traditional universities (self-study, peer review feedback and evaluation) while criteria are adapted to the type of entrepreneurship for a specific context which should account for the six areas of effectiveness of the universities discussed in the previous section. Twelve universities

are currently (2017) undertaking the ACEEU accreditation, serving as pilots that help to validate the evaluation approach.[1]

Conclusion

The concept of entrepreneurial university started with the primary objective of diversifying funding sources to reduce the state burden and increase the degree of autonomy in the face of accelerating demand for places in higher education and other related challenges. It had the potential of increasing relevance of the higher education programs to meet the societal needs and employability of the graduates. An entrepreneur graduate could generate employment for others. The entrepreneurial university can promote public–private community participation, a goal for institutions of higher education today. The argument that entrepreneurial university would miss the university's noble missions is refuted by Burton Clarke as follows.

> Entrepreneurial character in universities does not stifle the collegial spirit; it does not make universities handmaidens of industry; and it does not commercialize universities and turn them into all-purpose shopping malls. On all three counts it moves in the opposite direction. (Clark, 2001)

This argument has been further strengthened by the insertion of the programs of social and spiritual entrepreneurship as detailed in the paper.

As mentioned in the section on effective management of entrepreneurial university, it has to develop a fertile innovation ecosystem, create an entrepreneurial culture and have a strong local base for entrepreneurship. The comprehensive nature of the entrepreneurial university given in the paper while reducing financial burden on the state and increasing their autonomy has the possibility of providing graduates of leading a good quality life with mental well-being. It has also the potential of reducing corruption, inequality, injustice, violence, global warming and wastage of resources in the society. It also can promote harmony among people and between man and nature as observed by the former Secretary General of the United Nations in the general assembly.

However, the state has to remain responsible for its sustainability with whatever complementary resources it needs.

[1] These are: Ryerson University, Toronto; University of Johannesburg, South Africa;, the University of Adelaide, Australia; Qatar University, Qatar; University of Wollongong, Australia; Coventry University, England; Chalmers University of Technology, Sweden; Tartu Ulikool, Estonia,; Lehigh University, USA; University of Turku, Finland; University of Warsaw Poland; Universidad EAN, Colombia.

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Part II
Innovations in Financing of Public Higher Education Institutions

Chapter 5
Financing of Public Higher Education Institutions in India

Jinusha Panigrahi

Abstract The Education for All (EFA) movement and universalisation of secondary education put pressure on the higher education sector to expand. The resource constraints did not permit the public exchequer to extend adequate funding support to an expanding higher education sector. The reforms initiated indicated a transformation from institutional financing to student-based financing in higher education. These changes also brought about changes in the allocation policies from an input-based funding to output-based or outcome-based funding. Higher education institutions across the globe and in India are devising strategies to mobilise non-governmental resources. This chapter examines the process of allocation of resources to selected state-level universities and their respective affiliated colleges and their capacities to mobilise resources through various strategies.

Keywords Institutional financing · Resource allocation · Resource mobilisation · Resource constraints · Sources of funding · Innovative methods

Introduction

There has been significant transformation in the financing of higher education from institutional financing to student-based financing in recent decades across the world. The expansion of higher education system due to universalisation of elementary and secondary education has spiked the demand for higher education. To meet this rising demand for higher education, there is a rapid expansion of higher education institutions basically by the private entity. Along with rapid expansion, the competing demand for public funds in a neo-liberal market economy emphasising on new public management has resulted in a decline or stagnant funding of public higher education institutions. Not only countries are experiencing a decline or stagnancy in public funding of higher education institutions but also the traditional reliance on public funding is gradually shifting towards private funding, particularly through student

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fees or self-financing courses. The allocation criteria are moving from input-based funding to output-based or outcome-based funding. This has put the public higher education institutions, particularly in developing countries like India, to a double setback, while on the one hand, there is lack of adequate government grants, and on the other, their capacity to generate resources from non-government sources is limited. This makes the public higher education institutions to lead towards deterioration due to lack of funds for development and maintenance activities.

This chapter explores the allocation of resources to selected state-level universities and their respective affiliated colleges and resource mobilisation through various possible options.[1]

Background

There are many arguments in favour of public financing of higher education. At the same time, those who believe in market based approach to development, support higher education expansion to be financed by the households. The debate on who should finance HE originate from the nature of higher education, whether higher education is a public good or a private good. A public good is characterised with two major properties (Samuelson, 1954) such as: (i) non-rivalry consumption which indicates that the consumption by one does not diminish that by others and (ii) non-excludability which states that its distribution can't be restricted to selected few when the allocation among the society is taken into consideration (Musgrave & Musgrave, 1989). There are counter arguments regarding whether higher education is a public good or a private good. It can be argued that higher education manifests some characteristics of a public good and some characteristics of a private good. Therefore, higher education, at times, is treated as a quasi-public good with positive externalities (Tilak, 2005). Those who cannot pay for it when it is priced may be excluded from its consumption. Similarly, it may exclude some from consumption when there is growing demand for it but has a limited supply. Some who fail to fulfil the eligibility criteria required for admission or lack the credentials for admission or fail to compete with others are excluded from consumption of it.

Higher education is non-rivalrous in the publicly funded higher education institutions (excluding the possibility of congestion due to higher demand for it). Higher education not only benefits its ultimate consumer (i.e. the student) rather benefits the society at large due to the positive externalities associated with it in terms of social cohesion, ethical values, morality and many others. To an extent, it is thus argued to be a merit good that is preferred by the community as a whole and meant for societal benefit. The non-market benefits or the spillover social benefits of investment in human capital such as the patriotic feelings, maintenance of the democratic

[1] The chapter is based on the CPRHE/NIEPA's major research study on "Financing of Public Higher Education Institutions in India: Institutional Responses to Decline in Public Funding" undertaken by the author during 2015–17 (Panigrahi, 2018a).

values and compliance with the cultural norms are difficult to measure as the market is missing to value such externalities (Dreze & Sen, 1996; McMahon, 2006). Due to such market imperfections, the burden of financing of higher education is argued to be taken care of by the government (Lleras, 2004). Overall, the efficiency and equity argument on public financing has got paramount importance in a market economy. To correct market failure in the instances of imperfect market and asymmetric information and for equitable income redistribution public intervention gets significant value (Musgrave & Musgrave, 1989).

Resource Allocation Criteria: Country Experiences

The criteria of resource allocation to higher education institutions though varies across countries but those can be categorised into two major types such as resource allocation based on required or available inputs of the higher education institutions and resource allocation based on final outputs or outcomes. While inputs may be based on student enrolments in several disciplines, enrolment of girls, teaching and non-teaching staff, library, equipment and other costs associated with the institution, the outputs may be based on number of graduates or pass outs or based on performance of students.

Albrecht and Ziderman (1992) based on an elaborative work on resource allocation argued for wide variations across countries in resource allocation criteria to higher education institutions which is discussed in this section. Categorising the methods of resource allocation into four categories, the authors pointed out that negotiated funding method or incremental funding model is most widely used method of funding of higher education institutions where the quantum of funding is dependent on the negotiating capacity of the university concerned. The examples of countries following this method of funding are Latin America, South Asia and Africa (relying on incremental budgeting), Jordan & Honduras (relying on fixed revenue agreements) and Kenya and Nigeria (relying on ad-hoc negotiating).

In case of input funding or cost-based funding which considers both individual and institutional costs, the resources are allocated on the basis of unit costs. On the contrary, in output-based funding or performance funding higher education institutions are funded according to their performance in producing graduates or post-graduates and outcome in teaching and research activities. Another funding method according to the authors is student-based funding where students directly receive the funds for investment according to their choice rather than through the institutions and the method is argued to improve access to quality higher education institutions, e.g. voucher system and student loans.

However, Albrecht and Ziderman (1992) argue that the first method of funding result in greater interference by the government in the funding decisions of universities and colleges constraining their autonomy on the enrolments, internal allocation of funds, generation of additional resources, future funding uncertainties, and lack of any incentives for efficiency. Similarly they also contested that, while provision

of appropriate incentives to improve performance is one of the major challenges faced by performance funding method the focus of such method is generally more inclined towards the quantity in certain instances (e.g. Finland, Denmark, Germany, The Netherlands, and Israel). Performance funding argued to bring out uncertainties in availability of funding for future and has been less successful in encouraging higher education institutions for diversity and flexibility to adapt promptly to dynamic needs of labour market.

However, the study by Salmi and Hauptman (2006) based on several country practices categorised the methods of resource allocation into traditional and innovative allocation mechanisms. Negotiation-based funding is considered by the authors as the most traditional method of funding which could be line item based or block grants to the higher education institutions still practised in many countries. It is further argued that many countries over the years have moved away from negotiation-based funding and have shifted to formula-based funding which varies depending on factors used in development of formula and type of organisation developing it.

They are based on (a) inputs such as number of staff and their salaries or number of professors with Ph.D.s (e.g. Eastern Europe) or number of students enrolled along with earlier two formulas (e.g. Poland), (b) costs/student which may be actual cost (e.g. USA) or average cost or normative cost (staff/student ratio) per student (e.g. England, Bulgaria) or benchmarking[2] the cost (e.g. USA) or chargeback arrangements to review initial allocations and readjust in mid-year, (c) categorical funds allocated according to certain formula to an institution or group of institutions designated by government based on geographic locations or types of students served (e.g. USA, South Africa).

Certain innovative methods of resource allocation by Salmi and Hauptman (2006) are as follows: (i) priority-based funding or funding for relevance based on national or regional priorities (e.g. England and selected states of USA), (ii) output or performance-based funding which may be based on; (a) *performance contracts or agreements* between government or buffer bodies and institutions for funding of an agreed portion of expenses (e.g. France, Finland, Denmark, Austria, certain states of USA) or (b) *performance set-asides* where total recurring expenses or a part of it is on the basis of a number of performance indicators (e.g. several states of USA, South Africa) or (c) *payments for results* based on a set of performance measures such as number of students enrolled or number of graduates in different disciples as per contract with government as well as private entities to estimate the eligibility of institutions for formula funding of recurrent expenditures (e.g. Denmark, England, Israel, The Netherlands, Canada) or (d) *competitive funds* which is the most effective and innovative method of resource allocation with the objective of improving quality & relevance, promoting innovation and fostering better management (e.g. Argentina, Bolivia, Bulgaria, Chile, Ghana, Hungary, Mozambique, Sri Lanka, USA).

However, for an effective allocation mechanism to fund higher education institutions the student-based allocation methods (e.g. vouchers) are considered by authors

[2] Several states in USA make a comparison with similar types of institutions in other states while settling the per student costs in their funding formula (Salmi & Hauptman, 2006).

to be more equitable, promote quality and relevance but encourage private sector expansion. An appropriate mix of allocation methods to meet policy objectives is suggested along with resource mobilisation by institutions themselves. Santiago et al. (2008) also found that OECD countries fund allocation is mostly performance or output or outcome based with few innovative ways of allocation such as innovation endeavours (e.g. Korea), quality evaluation (e.g. Japan) and learning and teaching performance fund (e.g. Australia).

In recent decade, a major diversion to higher education funding method is move towards student-based funding. This is basically in terms of public subsidies to students, particularly in elite universities (e.g. BRIC countries), compared to mass universities and colleges (Carnoy et al., 2014). There could be many arguments in favour of student financing such as enhancing access and quality, but it has deeper implications encouraging a privatisation of public higher education institutions with larger emphasis upon a rise in fee structure and encouraging market-oriented courses.

Financing of Higher Education in India

Expenditure on education as a share of GDP in India has experienced a slow growth and at times a stagnant growth so far as the share of education department at centre is concerned (Table 5.1). Education sector being under the concurrent list of Indian constitution a major share of expenditure on education as a percentage of GDP is borne by the states. A larger share of expenditure on education is by education department at states compared to other departments such as science and technology, health and family welfare, defence and atomic energy etc. (Panigrahi, 2017). While expenditure on education by education departments at centre has faced a decline in last five years the shares of states education department as well as other departments have experienced an increase. Overall expenditure on education by both education and other departments both by centre and by states though increasing in absolute terms but relatively when compared to enrolments seems to be inadequate.

Public Expenditure on University and Higher Education Across States

Under 14 merged schemes, UGC provides one-time catch-up grant to uncovered state universities (not coming under 12 (B)) and young colleges, rejuvenation of infrastructure in old colleges, colleges in backward areas, special grants for enhancement of intake capacity, equal opportunity centre, remedial and other coaching for SC/ST/OBC and minorities, etc. General development plan grant to 24 deemed to be universities are also allocated for overall infrastructure development and other academic purposes. Development assistance also extended to 39 central universities

Table 5.1 Statement indicating the public expenditure on education as percentage of GDP

Year	Total expenditure on education by education department			Total expenditure on education by other department			Overall expenditure on education by education and other department		
	States as % of GDP	Centre as % of GDP	(States + Centre) as % of GDP	States as% of GDP	Centre as % of GDP	(States + Centre) as % of GDP	States as % of GDP	Centre as % of GDP	(States + Centre) as % of GDP
2011–12	2.40	0.69	3.09	0.44	0.30	0.73	2.84	0.99	3.82
2012–13	2.34	0.66	3.01	0.46	0.24	0.69	2.80	0.90	3.70
2013–14	2.33	0.64	2.97	0.50	0.37	0.87	2.83	1.00	3.84
2014–15 (RE)	2.55	0.57	3.12	0.55	0.34	0.89	3.10	0.91	4.01
2015–16 (BE)	2.65	0.50	3.15	0.56	0.36	0.92	3.20	0.86	4.07

Note GDP figures are on the base year 2011–12
Source MHRD (2017), ABE 2013–16

including 16 new central universities. Universities and colleges under 12 (B) are also eligible for competitive grants by UGC to undertake some new investments but the amount is too small which is also grabbed by few selective HEIs. Apart from UGC, there are other funding bodies like All India Council of Technical Education (AICTE), Medical Council of India (MCI), Pharmacy Council of India (PCI), Nursing Council of India (NCI), Bar Council of India (BCI), Council of Architecture (COA), Veterinary Council of India (VCI) and some other funding bodies basically for the technical or professional courses.

Budgeted expenditure on university and higher education to total budgeted expenditure on education by education department under revenue account in several states of India in last two years shows drastic decline in some of the states and minor increase in case of others (Table 5.2). While Bihar, Haryana, Himachal Pradesh, Jammu and Kashmir, Kerala, Meghalaya, Odisha, Rajasthan and Uttar Pradesh have experienced a drastic decline in expenditure on university and higher education by education department compared to total expenditure on education, the states such as Jharkhand, Karnataka, Manipur, Chandigarh, Dadra and Nagar Haveli and Puducherry have experienced a major hike in revenue expenditure. It can be stated that the major states in India with a major share of population and catering to larger enrolments have cut down their expenditure on university and higher education.

Similarly, capital expenditure on university and higher education for development and maintenance purposes has experienced a decline in most of the states in recent years (MHRD, 2015). While Chhattisgarh, Kerala, Maharashtra, Manipur, Delhi, Lakshadweep have experienced a decline in capital expenditure on university and higher education by education department, states such as Arunachal Pradesh, Bihar, Goa, Haryana, Himachal Pradesh, Madhya Pradesh, Mizoram, Nagaland, Odisha, Sikkim and Tamil Nadu have experienced a sharp decline in capital expenditure in recent years. The share of capital expenditure on university and higher education by education department out of total budgeted expenditure on education has increased in few states only (e.g. Andhra Pradesh highest among all at 42.93%, Gujarat, Karnataka, Meghalaya, Punjab, Rajasthan, Tripura, Uttarakhand, Uttar Pradesh, West Bengal, Chandigarh and Puducherry).

It is observed that most of the states experiencing a decline in capital expenditure on university and higher education are also experiencing a decline in revenue expenditure by education department with few exceptions which indicate an overall decline in expenditure on university and higher education in majority of states.

Dynamics of Resources Allocation in Selected States

To deeply understand the financing of higher education institutions in India and the initiatives therein in case of deficits in resources as experiences by the HEIs, the Centre for Policy Research in Higher Education (CPRHE) undertook an empirical study in selected geographical regions of India. A purposive sampling is drawn keeping into consideration different regions and types of higher education institutions

Table 5.2 Budgeted expenditure on university and higher education by education department (revenue account)

		(Rupees in thousands)	
		2013–2014 (actual)	2015–2016 (budget estimates)
		Percentage to total BE on education	Percentage to total BE on education
1	Andhra Pradesh	13.82	14.3
2	Arunachal Pradesh	7.5	7.25
3	Assam	12.15	13.41
4	Bihar	22.31	15.57
5	Chhattisgarh	7.69	7.62
6	Goa	14.29	14.48
7	Gujarat	7.67	8.95
8	Haryana	12.34	10.82
9	Himachal Pradesh	7.05	5.62
10	Jammu and Kashmir	15.17	12.3
11	Jharkhand	14.84	17.81
12	Karnataka	12.67	14.55
13	Kerala	20.67	17.08
14	Madhya Pradesh	10.2	10.86
15	Maharashtra	12.88	11.07
16	Manipur	18.79	25.46
17	Meghalaya	14.89	12.11
18	Mizoram	13.35	13.24
19	Nagaland	10.91	11.11
20	Odisha	18.47	15.61
21	Punjab	8.3	7.18
22	Rajasthan	7.1	4.59
23	Sikkim	3.32	3.72
24	Tamil Nadu	9.31	9.82
25	Telangana	…	14.46
26	Tripura	6.32	6.71
27	Uttarakhand	5.53	5.76
28	Uttar Pradesh	7.8	5.39
29	West Bengal	13.25	13.35
30	A. & N. Islands	7.05	8.65
31	Chandigarh	27.02	31
32	Dadra & Nagar Haveli	1.89	9.1

(continued)

Table 5.2 (continued)

		(Rupees in thousands)	
		2013–2014 (actual)	2015–2016 (budget estimates)
		Percentage to total BE on education	Percentage to total BE on education
33	Daman & Diu	6.43	7.19
34	Delhi	2.69	3.6
35	Lakshadweep	…	12.43
36	Puducherry	20.02	24.82
	Total (States & UTs)	11.64	10.84
	Total Centre	20.58	23.40

Source MHRD (2015)

(based on management). The study was implemented in Bihar, Odisha, Punjab, Telangana and Uttarakhand representing several zones of the country. The states representing the Northern zone is Uttarakhand and Bihar. Southern zone of the country is represented by Telangana. Eastern and Western zones are represented by Odisha and Punjab, respectively. Similarly, one central university is selected from Telangana which is basically a centrally funded HEI and four state-level universities are selected along with one affiliated colleges each from each university. To understand the diverse patterns of funding of the colleges, they are selected accordingly keeping the representation of the colleges from rural, semi-urban and urban areas.

Share of Education in GSDP of Selected States

The states selected for the study represent different zones of the country and have diversified features in terms of economic, social as well as educational indicators. In terms of GSDP, Telangana is comparatively better off (Table 5.3) compared to other selected states in the study. Uttarakhand is the low-performing state among the selective states India followed by Odisha. It means a lot to determine the capacity of the state in dealing with its social and educational indicators. But, the budget for education and training by education and other department to total GSDP of the state is higher in case of low GSDP states like Uttarakhand (4.11%) and Odisha (4.00%). Having second highest GSDP, Bihar's budget is 5.53% for education and training, whereas Andhra Pradesh's budget for the same purpose is 3.29% only.

Table 5.3 Percentage of budgetary allocation across different education sectors from total educational expenditure 2015–16 (BE)

Sectors	Telangana		Bihar		Odisha		Punjab		Uttarakhand		All India	
	Revenue	Capital	Revenue	Capital	Revenue	Capital	Revenue	Capital	Revenue	Capital	Revenue	Capital
Elementary Education	39.33	3.88	63.38	0	59.05	8.14	33.33	77.27	44.69	7.79	50.96	12.48
Secondary Education	38.66	0.36	16.08	77.07	23.38	13.57	57.45	11.56	45.73	49.83	29.99	33.35
Adult education	0.49	0	1.34	0	0.05	0	0.01	0	…	0	0.33	0
University and higher education	14.46	10.23	15.57	5.50	15.61	1.9	7.18	4.25	5.76	29.31	12.85	13.47
Technical education	6.32	11.21	0.59	1.87	1.14	75.03	1.43	6.92	2.33	12.83	4.6	24.16
General education	0.71	74.32	0.89	15.55	0.35	1.36	0.35	0	0.97	3E-05	0.8	16.52
Language development	0.04	0	2.17	0	0.43	0	0.26	0	0.52	0.23	0.48	0.010

Source: MHRD (2017)

Sector-Wise Expenditure on Education in Selected States

The expenditure on different sectors of education in the selected states gives a comparative picture of expenditure priorities of the states. Like all India level, elementary education is a priority area for which there is higher public expenditure on elementary education in states such as Bihar and Odisha under revenue account. Punjab government is spending more on secondary education under revenue account. Telangana and Uttrakhand governments have equal priority for elementary and secondary levels of education as per changing policy objectives. However, the expenditure on university and higher education under revenue account is higher and at par with expenditure on secondary education by the state government of Bihar (15.57%) compared to all other selected states and higher than national share at all India level. But, the grant for development and infrastructure is very inadequate and discouraging for the growth of university and higher education across states except Uttarakhand.

Under capital account, Uttarakhand in recent years has given more grants (29.31%) to colleges for infrastructure development which is a larger share compared to the share at all India level, and other selected states Odisha seems to be under funded in this account in comparison to its higher investment for technical education under capital account. Telangana and Uttarakhand have also given importance to technical education for their expansion and development in the respective states. Punjab and Bihar spend very little for developmental purposes of their universities and colleges which perhaps is reflected in the poor expenditure on repair and maintenance by the selected universities and colleges as discussed in later sections of the chapter.

Expenditure on Higher Education By States

From the total budget for university and higher education, there are different priority areas for the selected states as reflected in the share of different items of expenditure. Assistance to universities is the most important area of investment by Bihar (Table 5.4) compared to other selected states who allocate more funds either to the government colleges (e.g. Telangana and Uttarakhand) or to the non-government-aided colleges (e.g. Odisha and at All India level). Punjab state allocated more funds to non-government colleges in 2013–14 compared to universities and government colleges which declined in 2014–15 with more assistance to government colleges but it again increased in 2015–16.

Expenditure on scholarships for students gets a discouraging figure across selected states indicating limited access initiatives at the state-level HEIs which cater to the majority of demand for higher education in the state across diverse sections of population.[3] There is little left for the universities and colleges for their day to day direction and administration expenses, and it has remained stagnant across states except Bihar

[3] Scholarship figures for Odisha and Uttarakhand are merged with others category.

Table 5.4 Percentage share of university/dl/scholarships in 2013–16 from expenditure on education (revenue account)

Sub-heads of expenditure	Year	Direction and administration	Assistance to universities	Government colleges	Assistance to non-govt. colleges	Scholarships	Other expenditure
Bihar	2013–14(A)	0.09	93.77	1.43	3.5	1.14	0.08
	2014–15(R.E)	0.14	94.46	1.24	2.86	1.27	0.04
	2015–16(B.E)	0.28	93.69	1.48	3.35	1.16	0.04
Odisha	2013–14(A)	0.64	15.91	15.71	59.06	…	6.77
	2014–15(R.E)	0.6	16.32	18.18	48.8	…	13.31
	2015–16(B.E)	0.66	17.43	15.7	48.81	…	14.37
Punjab	2013–14(A)	0.01	28.31	26.55	36.23	0	8.91
	2014–15(R.E)	0.01	23.92	35.01	33.56	0.06	7.45
	2015–16(B.E)	0.02	20.01	34	38.45	0.05	7.47
Telangana	2013–14(A)	0	0	0	0	0	0
	2014–15(R.E)	1.2	28.84	51.14	18.61	0.05	0.15
	2015–16(B.E)	0.98	28.35	51.92	18.59	0.03	0.13
Uttarakhand	2013–14(A)	1.51	26.25	47.04	22.83	0	2.37
	2014–15(R.E)	1.55	19.91	55.89	19.39	0	3.26
	2015–16(B.E)	1.52	19.11	56.29	18.92	0	4.16
All India (Total states and UT)	2013–14(A)	0.79	27.86	24.79	42.27	0.47	3.37
	2014–15(R.E)	0.97	29.94	27.92	37.8	0.57	2.65
	2015–16(B.E)	1.07	27.28	27.98	39.49	0.68	3.36

Note Includes both Plan and Non-Plan Expenditure; A: Actual, R.E: Revised Estimates, B.E: Budget Estimates
Source MHRD (2017)

Table 5.5 Number of universities/colleges in selected states with average enrolment in 2018

States/UTs	No. of universities	No. of colleges	College per lakh population	Average enrolment per college
Bihar	24	770	7	1686
Odisha	25	1042	23	685
Punjab	31	1053	33	576
Telangana	24	2045	51	558
Uttrakhand	33	440	37	621
All India	903	39,050	28	698

Source AISHE (2018)

though share is too small for the purpose. This is also reflected in the expenditure patterns of sampled institutions for the study.

Enrolment in Higher Education in Selected States

In terms of the number of universities, all the states are having equal number of them but looking at college figures as shown in Table 5.5, Uttarakhand and Bihar are having very less number of colleges. This gives a very pathetic representation of Bihar where there are only 7 colleges per lakh population and therefore, average enrolment per college comes out to be 1686 compared to its counterparts in other selected states and all India figure.

On the other hand, Telangana after separating from Andhra Pradesh has improved its position in terms of the number of HEIs and enrolments. Punjab and Uttarakhand are having more colleges per lakh population and less average enrolment per college compared to all India level. Odisha is in a better off position than Bihar but lesser number of colleges per lakh population compared to all India figures. However, the concentration ratio of colleges and universities in interior districts of Bihar and Odisha is found to be very low (Varghese et al., 2018). Such states require greater attention in terms of public funding as well as expansion of public higher education institutions.

Process of Resource Allocation

Central government is the major funding authority for central universities and institutes of national importance, whereas state government is the major funding authority for state universities and institutions. Hence, accordingly, the major sources of funding of higher education institutions also varies from one to other in terms of their category, whether it is a central university or state university or government

college or aided college or autonomous college. Between centrally funded institutions, the funding of newly established institutions is different from well-established institutions. Similarly, there are variations among state-level universities and their funding by their respective state government, which is expected to be the major source of funding of state-level public universities and colleges. But, in reality there are segregations and differentiations in terms of the receipts of grants by these universities and colleges from their respective state governments, and in many instances, state government grants are not the major source of income of these public higher education institutions as found from this study.

Apart from the share of state grants by different state-level public HEIs, keeping into consideration the budget requests, utilisation of those resources makes a difference regarding the amount of receipts of funds from the government sources.

Budgeting by the Higher Education Institutions

Budget Requests by the Departments

During the preparation of budget priorities fall upon the major expenses those cannot be ignored as the main recurring expenses of state universities like salary of academic and non-academic staff. There is a process followed for the preparation of budget for the expenses of the university. Each of the departments prepares their respective budget keeping into consideration their request amount in previous year and their total academic and non-academic staff and other administrative and academic expenses of the department.

Principles determining the budgetary requests for the university and colleges vary from one another. Three major principles governing budgetary requests are fund requirements of the respective departments, as per the previous expenses of the institution concerned and anticipated expenses of the departments.

In all the selected state universities, the budget is prepared by the finance officer of the respective university and finalised by Budget Committee. The Finance Committee (consisting of nominees from the state government, e.g. Comptroller of Finance and Budget-cum-Accounts Officer, the Vice-Chancellor of the University and other nominated members from the University), is the approving authority for the budget. Finally, the budget goes to the Syndicate of the university for final approval. After the preparation of budget, the request is placed before the concerned authority more than 16 weeks before the commencement of the next financial year by the selected University in Bihar and Uttarakhand, while the sampled University in Punjab and Odisha send requests 2–5 weeks in advance and 11–15 weeks, respectively. For both plan and non-plan grants, the request is placed before the higher authority or the funding agency in different time periods by the state universities. It varies from one year before the commencement of next financial year to 3 months before the commencement of next financial year as shown in Table 5.6.

Table 5.6 Budgetary requests and disbursements (university)

	Bihar university	Utkal university	Punjabi university	Kumaun university
Requests to concerned authority before next financial year	More than 16 weeks	Between 11 and 15 weeks	Between 2 and 5 weeks	More than 16 weeks
Requests to higher authority for plan and non-plan grants before next financial year	1–3 months	3–6 months	Before 6 months	Before 1 year
Release of grants (instalments)	4	2	4	2
Duration of receipts of first instalment	Three months after commencement of financial year	After a month	Within 12 months in equal instalments	2–3 months after commencement
Who considered responsible for delay	DoHE-State Govt.	DoHE-State Govt.	DoHE-State Govt. and finance department	DoHE-State Govt. and finance department

Source Author's compilations from Finance data of selected institutions

On the other hand, budget for the college is prepared annually by the administrative officer or accounts section of the college keeping into consideration fund requirements of the respective departments, as per the previous expenses of the institution concerned and anticipated expenses of the departments in the college under the supervision of Bursar (Accounts) with the approval from the principal. After approval, the budget request for the forthcoming financial year is sent to the Directorate of Higher Education and the directorate after compilation of requests of all colleges sends the departmental budget to the government. State Government releases the budget to the department. Sometimes, there is no pattern followed for preparation of budget in few colleges as the receipt of income is sporadic and very uncertain.

Procedure of Disbursement Followed

The grants from the government are basically received in an instalment basis both by the state universities and by the colleges. While both Bihar University and Punjabi University receive the grants in four instalments, both Utkal University and Kumaun University receive their requested grants in two instalments. Similarly, the selected colleges face a different pattern of receipts from government source as shown in Table 5.7. While Bihar College receives grants in three instalments, the other government

college in Uttarakhand gets at once the receipts from state government. The aided college of Punjab gets in four instalments like its parent university, the autonomous college of Odisha receives the grants in two instalments. This depends on type of institution, amount requested and the rules and guidelines of funding authority which varies from state to state and across funding authorities.

The receipt of first instalment again varies across institutions which very much depend on the rules and guidelines of the funding authority and receipt of requests from the respective higher education institutions. The delay in receipt of funds as agreed upon by all the state-level universities is due to the delay in disbursement of funds by the Department of Higher Education. And both Kumaun University and Punjabi University face delays in receipt of funds due to delay in allocation of receipts by the state finance department due to severe fiscal crisis of the State government.

The colleges follow some other patterns of receipts of funds from government sources as shown in Table 5.7. Delay, if any, is due to delay from their respective Department of Higher Education of State Government. The receipts by the N. N. College are uncertain due to unending delays from their Department of Higher Education in the state and plan grants from UGC. But, it may be mentioned in the context of above discussions that the responses of the respective head of the Department of Higher Education at different selected states during direct personal interview

Table 5.7 Budgetary requests and disbursements (college)

	N.N. college	U.N. college	Desh Bhagat college	P.G. Govt. college
Requests to concerned authority before next financial year	NA	Less than 2 weeks	Between 6 and 10 weeks	Between 6 and 10 weeks
Requests to higher authority for plan and non-plan grants before next financial year	NA	1–3 months	Before 1 year	Before 1 year
Release of grants (instalments)	3	2	4	1
Duration of receipts of first instalment	Uncertain	Salary grants from state 2–3 months after year starts and UGC grants in end	Within 1–2 weeks of commencement	2–3 months after commencement
Who considered responsible for delay	DoHE-State Govt. and UGC	DoHE-State Govt.	NA	DoHE-State Govt.

Source Author's compilations from finance data of selected institutions

reflects the apathy of the universities and colleges in sending their budget requests on time for which there is a delay in disbursements of grants by the government.

Criteria of Resource Allocation Within the HEI

After receipt of funds from the government sources, the amount received is allocated across the departments of the respective university or college. There are different procedures followed by diverse higher education institutions while allocating fund among various departments and the authority involved in facilitation of the process of allocation of funds among various departments also varies. In many instances, the amount released to departments does not commensurate with their requests.

The criteria for allocation of funds to various departments are according to the priority of the work for which fund is requested. Therefore, the allocation of funds is not according to the requirements of the departments (e.g. Bihar University). Similarly, allocation to different departments may be based on priority of work for which fund is requested along with previous utilisation patterns of funds by the concerned departments and the capability of Head of the Department in utilising the resources (e.g. Utkal University). The proper allocation of funds among various departments is supervised and scrutinised by the Finance Committee, the Comptroller of Finance under the guidance of Vice-Chancellor of the university. But, still fund allocation is not as per the requirements of the departments. Departments in Punjabi University gets fund as per their requirements, but budget requests by each departments are prepared accordingly so that they would meet the minimum requirements of the departments which does not cover many of the administrative and the repair and maintenance expenses of the departments. The bigger departments get a larger proportion of grants compared to smaller departments. It is basically contingency and the maintenance grants those are allocated to the departments which is meant for most essential expenses like salary of teaching and non- teaching staffs, electricity charges and other crucial maintenance expenses.

The concerned Deans of the schools/faculties distribute the specific allotted funds among the departments of Kumaun University. A specific amount is allotted to the departments for their contingencies, laboratories and other departmental expenses. The requested grants for purchase of books for each of the departments as per their budgetary requests, it is distributed through the In-charge Professor for library. Allocation of budget and its utilisation is done under the guidance and supervision of finance controller.

Similarly, the departments in selected colleges do not receive grants as per their requirements. The criteria followed for allocation of funds among the departments is according to the priority of work for which fund is requested, and as per the policy of state government, there is no such provision of fund allocation to different departments in N.N. College in Bihar.

U.N. College in Odisha follows its own criteria of allocation taking into account the requirement of different departments/sections and their plans, and the broad

objectives of the college in the coming few years under the supervision of college Principal and Finance Committee.

The Govt. College of Uttarakhand has no system of allocating the budget among the department. Since the budget received as block grant the allocation of the fund received among various departments considers the needs and requests of the departments. The contingency amount for office and maintenance expenses is distributed equally to all the departments. But, there is no separate office of the departments.

Major Sources of Funding (Panigrahi, 2018b, 2019)

A two-point comparison is made between year 2010–11 and 2014–15 to understand the variation in major sources of income across selected universities. The sources of income of universities are categorised into four major parts such as funding from central government, state government, receipts from different types of fees and receipts from other sources those are generated by the university from time to time.

Government Sources

Funding by central government to selected colleges and universities is meagre in the year 2014–15 compared to 2010–11 with exceptions for those who received RUSA grants during the study period. Many a times, the sanctioned amount to colleges is received with great delay for which in certain financial years the plan grants from central government is almost zero.

Funding by state government of the state-level institutions has shown a decline across the selected higher education institutions of the study with few exceptions which varies from institution to institution, and while in some instances, it consists of very small percentage of the total revenue of the university, and in some other instance, it covers more than half of the total revenue share of the university. The overall declining trend in some instances is due to the impact of policy changes at the centre-but state-level government policies regarding funding of state higher universities and colleges differentiating between new and well-established higher education institutions impact the share of state universities receiving funding from the state government. The negotiating capacity of the respective institution also matters for the state funding of the institutions as funding is mostly negotiation based.

Other than Government Sources

Due to the declining overall public funding of the state universities and colleges, the respective institutions explore other sources to compensate the decline in the revenue from public sources. Like many other public HEIs in India and many developing

and developed countries, hiking of fees of the regular courses or introducing more professional and self-financing courses is the initial attempt for cost sharing and revenue generation. The most recent approach in India which is emerging as an alternative source of financing is introducing courses under distance education mode at the cost of quality of education. However, there are fluctuations in revenue from fees faces a fluctuation over the years depending on demand of the courses offered and enrolments thereof.

A part of fees received by colleges from admission fee, tuition fee, sports fee and fine are transferred to the respective state Department of higher education. The fees received under registration fee, examination fee and sale of admission forms are transferred to the university. Therefore, rest of the revenue amount from fees is utilised by the colleges for their recurring expenses. The colleges also go for self-financing courses which contribute towards their total income with the fact of decline in public funding. There is an increasing trend from self- financing courses (computer and library maintenance included) with little exceptions. The self-financing courses are basically in technical and professional courses. All the pre-existing infrastructure facilities available in the institution are used for running of these courses. The faculty members engaged in these courses are generally in temporary basis, and their salaries are paid from the fees received from the students of these courses. One-third of the amount of income received as fees of self-financing courses is retained by the institution and rest are used for running of the courses and for other development purposes by the concerned departments of self-financing courses. Some of the infrastructures developed in the process of running of these courses are also used by these universities. Some of the permanent faculty members are also engaged in teaching in these courses with a minimum honorarium given to them.

Other Internal Sources

In terms of revenue generated/mobilised from other sources, unlike their parent affiliating state universities, the colleges have not explored much of this option. Though there is a mild increase in the share of revenue from other sources, by most of the selected colleges but the share is very low or negligible. Few of them generated some resources by renting out available land for multiple purposes and some rate of interest is earned from fixed deposits whose share found to be declining in recent years. The sampled private aided colleges received some endowments and renting out unused land as part of other sources. The sampled government college observed struggling with very high level of enrolment despite of lack of infrastructure, quality teachers and other incentives has failed to generate through other sources with little from university- industry linkages taking advantage for its location in an industrial city.

Conclusion

The struggles by the state university with a stagnant central government funding of meagre amount and declining state funding impacts the growth and development of the state-level universities. The reliance on fees and self-financing courses has regressive impact on access to higher education by different sections of population. The aided colleges and autonomous college have got leverage over other colleges in terms of revenue from cost sharing measures like fees and self-financing courses. Though other income is not giving much significant contribution to colleges, it has comparatively contributed to aided colleges. Similarly, state universities are resorting more to cost sharing measures with huge enrolment and diverse courses running in the campus including courses under distance education which contributes significantly due to large number of enrolment in these courses whose fee structure is higher and thus varies from regular courses. They also receive an average share from fees due to running of self-financing and distance education courses. Overall, the generation of income is not much explored by many such sampled institutions due to limited scope or lack of their capacity or capability to do so.

However, with the rising enrolments in state-level higher education institutions and therefore more requirements for infrastructure and other resources the plight of such institutions would be more pathetic in future years if the negligence from government continues like this for state-level colleges and universities. Targeted funding of such institutions needs to be done at priority basis to meet the growing aspirations of students for quality higher education in the knowledge economy.

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Chapter 6
Financing of Public Higher Education Institutions in Odisha

Mitali Chinara and Himanshu Sekhar Rout

Abstract The funds received by most universities from the state government are inadequate and are mostly utilised for meeting recurring expenses. Many institutions of higher education started self- financing courses which supplement significantly to the funds received by the university from government sources. However, some institutions have surplus funds since they find it difficult the spend the budget allocated to them. The resources are unspent because of the difficulty in spending due to the constraints imposed by the financial rules and the delay in the release of funds from the UGC and state governments. The institutions of higher education, on the other hand, face several challenges in their effort to mobilise funds on their own. State universities like Utkal University and aided college like UN College are expected to extend higher education at an affordable cost. The paper discusses the challenges faced by public and aided institutions to utilise the available resources and to mobilise additional resources from the non-governmental sources.

Keywords Resource utilisation · Self-financing courses · Internal sources · Government sources · Resource availability · Patterns of expenditure

Introduction

Education is treated as a vehicle for social, economic, and political transformation. On the other hand, the major objective of economic development is to provide better standard of living to its citizens through higher income, better education, and healthy

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life. The reciprocal relation between economic growth and the growth of education is likely to be an important key to sustained economic growth in a country (Mincer, 1996: 29). Though education can be viewed as a means to economic development as well as an end in itself, this piece of research will concentrate on the means of argument alone.

A higher rate of human capital investment especially on higher education enhances an economy's ability to obtain more from its physical endowments, creating a "virtuous spiral" (Scherer, 1992). A failure to maintain the pace of human capital accumulation relative to competing economies undermines the domestic economy's capability to invent and absorb future advances in technology, inducing a vicious cycle of industrial stagnation (Eicher, 1996: 133), and hence, would lead to limited incentive to acquire education, which is the engine of growth (Beine et al., 2001). Education contributes to economic growth through its role in improved productivity and increased national product. One per cent increase in the average level of human capital in the secondary sector yields a direct output growth of 0.076% in this sector. 0.076% direct output growth in the secondary sector (which consists of manufacturing industries) yields 0.143% growth in the entire economy (Fu et al., 2002). Analysis supports the idea that expanding tertiary education may promote faster technological advancements and improve a country's ability to maximise its economic output (Bloom et al., 2005: i).

Higher education has significant contribution to the economic development of a country irrespective of its level of developmental parameters. The larger the proportion of the population with higher education, higher is the prospects for economic growth of the country. No nation that has not expanded reasonably well its higher education system can achieve a high level of economic development (Tilak, 2003: 170). Especially in the era of knowledge economy, the role of higher education and research is manifold. In this connection, Castells (1993) explained that the university system is the engine of development in the new world economy.

Given the significant role of higher education in economic development, individuals/ households have been increasing their investment in it. But over the years, many developing countries have showed their apathy towards development of higher education and thereby have deliberately neglected higher education, reduced public investments in higher education, allowed laissez-faireism, and even adopted policies towards marketisation of higher education. Market forces have become very active; but since the markets in developing countries are "incomplete" and "imperfect", the outcomes are also far from perfect, and in fact, in many cases, the market forces have produced disastrous consequences. This only reconfirms the fact that "The role of the state in higher education development is critical and cannot be reduced (Tilak, 2005: 153)".

To compete in a global knowledge economy and to traverse along the growth path achieved by the developed countries, developing countries like India have to accord top priority to higher education, research and development. India is emerging as an important global player and hence the country cannot afford to have a less developed higher education system. India has already achieved a stage of massification of higher education (Varghese, 2015). The 12th Plan targets to achieve 25.2% gross enrolment

ratio (GER) by 2017, which implies an additional intake or enrolment of 10 million students into the higher education system. Now the question is how to achieve the enrolment targets and who will finance the expansion. The experience in the recent past has shown a fast expansion of the private sector and a significant increase in its contribution to total enrolments. Since most of the developed countries have attained massification of higher education systems mainly through public funding, India too needs to make higher investments in education to reach the global target of investing six per cent of GDP in higher education through a higher share of the public investments in the sector (Panigrahi, 2017).

The state of Odisha, situated in the eastern coast of India, bears ample evidence of educational activities in pursuit of excellence since ancient times. But if we look at modern times, education has been neglected in the state. The state got its first undergraduate college, Ravenshaw College in 1875, and its first university, Utkal University, in 1943. However, the State Government of Odisha, which is showing a steady growth in its Gross State Domestic Product (GSDP) at a rate higher than the national average, has been of greater priority to the social sectors in recent times. This has resulted in an improvement in the overall literacy rate (72.9%, which is at par with the national average of 73% (Census, 2011), enrolment ratio, and a fall in drop out ratio at all levels of education. At present, the state has 21 universities, out of which one is a central university (Central University of Odisha at Koraput), three are institutes of national importance, 12 state public universities, three state private universities, and two deemed universities (private), 1075 colleges, private and government, and 268 standalone institutions (GoI, 2016). Total expenditure on higher education as well as its individual components has invariably shown an increasing trend (positive growth rate) excepting in 2011 during which all of them registered a decline. The compound annual average growth rate of total expenditure on higher education works out to 19.94%. Universities claim only 14–21% of the total, while the colleges, government, and non-government claim 60–78% of the expenditure on higher education in 2014–15 (GoO, 2015).

Rationale of the Study

Panigrahi (2017) states that "historically the financial burden of education has been borne by the central and state governments but since 1990s, there is a move towards market process in higher education. This has happened due to the structural adjustment policy in the era of economic reform in the 1990s, which has led to market interference in the higher education decision making process. This is reflected in privatisation of public institutions and encouragement of private sector. Committees and commissions on higher education reflected on the need for institutions to seek resources in addition to what is allocated from the government, which were based on a set of criteria. However, the availability of resources at the institution level was found to be inadequate to meet the growing demand from student enrolment. Consequently, many higher education institutions started cost recovery measures mostly in

the form of levying higher rates of student fees and other such resource mobilisation strategies. Many institutions have succeeded in the process while others have not (Panigrahi, 2017)".

In general, institutions located in urban area or economically advanced regions (like universities and colleges in a city or metro) were in a better position to mobilise additional resources while those in the less developed regions and rural areas faced a lot of difficulties. It seems that there has been widening of inequalities between rural and urban areas with regard to access to funds and in terms of the outcomes of higher education.

In this context, the present study tries to examine the following objectives.

Objectives

The major objective of research is to study the various sources of funding of higher education in Odisha and analyse the expenditure and utilisation pattern of the resources by the higher education institutions. The aim is to analyse adequacy or inadequacy of resources in higher education institutions in Odisha and identify the activities that could not be carried out due to paucity of funds. The relative challenge in the mobilisation of additional resources by the selected higher education institutions is studied.

Data and Method

For the purpose of study, two higher education institutions of Odisha were chosen as representative of such institutions of the state, one of which is a state university and the other an autonomous college. Utkal University, the first university of the state, and UN Autonomous College of Science and Technology were included in the sample.

The study is based on both primary and secondary data. The major part of secondary data was collected from the website of Comptroller and Auditor General of India, Ministry of Finance of Government of Odisha and India, and MHRD. The primary data were collected from Utkal University, Bhubaneswar, and UN College of Science and Technology, Adaspur. The data was collected from stakeholders of the two case study institutions through a structured questionnaire, and schedule by adopting direct personal interview method with senior administrators of HEIs and state government and Focus Group Discussion with students and teachers. The data was processed through MS-Excel and SPSS. Descriptive statistics were used for analysis.

About the Sampled Institutions

Utkal University, established in 1943, is a teaching-cum-affiliating state university and is regarded as the mother university of the state. There are twenty-seven post-graduate departments located in its campus for studies and research in the disciplines of science, humanities, business administration, social sciences, law and commerce (Utkal University, n.d.). On the other hand, the UN Autonomous College of Science and Technology, Prachi Jnanapitha, Adaspur, in the Cuttack district, launched higher secondary level of education in arts, science, and commerce in 1987. To fulfil the growing demands of the people, undergraduate classes were opened in arts in 1991, and science in 1992, and commerce in 1993. At present, the college offers honours teaching in 21 subjects and enjoys a unique position in the education history of Odisha (UNCST, n.d.). It is a grants-in-aid college and enjoys an autonomous status, although affiliated to Utkal University.

Results and Discussion

Sources of Funding of the Institutions: Government and Internal Sources

The university receives funds from the state government on the non-plan head which shows an increasing trend over the period under study (i.e., from 2010–11 to 2014–15) and is mostly utilised for meeting recurring expenses like payment of wages, salaries, pensions, etc. (Table 6.1). It received an allotment of '398,000,000 (Rupees thirty-nine crore and eight lakh only)' on plan head for the purpose of maintenance and development of new infrastructure, like hostels and academic blocks in 2014–15 only. It also receives funds from central government agencies such as University Grants Commission (UGC), Department of Higher Education, Government of India, Indian Council of Social Science Research (ICSSR), and other sources such as Department of Science and Technology, Government of India, all of which show a fluctuating trend. The college receives funds from the state government through the department of higher education under non-plan head and from the central government through UGC, only under plan head. Funds from state government show a continuous increasing trend over the period under study, while the same from UGC shows year on year fluctuation (Table 6.2).

Besides the government sources, the university mobilises funds from its own sources. The internal source for the university consists of the fee collected from the self-financing courses and the Directorate of Distance and Continuing Education being run by the university. The self- financing courses contribute significantly to the funds that are received by the university from other than government sources. Its contribution to total receipts from non-government sources varies between 63% (in 2010–11) and 42% (in 2014–15). Examination fee, enrolment fee, and interest

Table 6.1 Receipts by sources of Utkal university 2010–15 (in percentage)

Year	State government		UGC (plan)	DHE, GoI (plan)	ICSSR (plan)	Others (plan)
	Non-plan	Plan				
2010–11	91.88	0.00	4.97	2.99	0.00	0.15
2011–12	94.16	0.00	3.02	2.00	0.00	0.81
2012–13	95.72	0.00	1.31	2.35	0.03	0.58
2013–14	85.19	0.00	9.07	4.82	0.00	0.92
2014–15	61.87	35.36	2.08	0.48	0.07	0.15

Source Calculated from UU (2010, 2011, 2012, 2013, 2014)

Table 6.2 Receipts by sources of UN college of science and technology 2010–15 (in percentage)

Year	State government (non-plan)	UGC (plan)
2010–11	85.90	14.10
2011–12	69.86	30.14
2012–13	73.41	26.59
2013–14	87.16	12.84
2014–15	79.02	20.98

Source Calculated from UNCST (2010, 2011, 2012, 2013, 2014)

from investment are other important non-government sources. Other sources like rent collection, receipt from endowment funds, and collection of water and electric charges exhibit year on year fluctuation, whereas fee collected from hostels and admission fee remain more or less stable. But these are not important in terms of their contribution to the total collection. Two sources which show a significant decline over the period of study are income from sale of publications and overhead charges collected from projects undertaken by the faculty (Table 6.3).

Non-government sources for the college are admission fee, enrolment fee, examination fee, medical/insurance fee, sport/recreation fee, hostel fee, other academic receipts, interest from investments, et cetera, and they contribute significantly to the total receipts of the college, which account for around 55% of the total receipts. The total amount collected from these sources taken together has continuously increased during 2010–11 to 2014–15. The fee collected from self-financing courses run by the college is included under other academic receipts, which not only constitutes the most important contributor to this category of funds but shows a continuously increasing trend. The reason is that the college offers various market-oriented courses under self-financing mode and the number of such courses has significantly gone up over the period. The percentage contribution of this source to total funding other than governmental sources stood at 73% in 2010–11, 65% in 2011–12, 66% in 2012–13, 76% in 2013–14, and 69% in 2014–15. Examination fee is the next important source in this category, which along with the enrolment fee has shown a steady increase. Hostel

Table 6.3 Receipts of Utkal university from other than government sources 2010–15 (in percentages)

Source	2010–11	2011–12	2012–13	2013–14	2014–15
Internal	63.00	58.28	63.30	51.36	42.37
Admission fee	0.01	0.02	0.02	0.02	0.01
Enrolment fee	4.43	4.26	7.42	5.11	4.15
Examination fee	19.03	31.06	17.51	36.12	43.21
Medical/insurance fee	0.00	0.00	0.00	0.00	0.17
Sports/recreation fee	0.00	0.00	0.00	0.00	0.29
Hostel fee	0.28	0.36	0.42	0.32	0.21
Interest from investment	8.14	2.98	7.22	4.02	7.91
Income from sale of publications	1.34	0.48	0.11	0.37	0.01
Receipt from endowment fund	2.39	0.35	2.32	0.30	0.53
Rent	0.69	0.74	1.20	1.11	0.39
Water and electricity	0.56	1.26	0.16	0.99	0.71
Overhead charges	0.15	0.22	0.32	0.29	0.04
Total	100.00	100.00	100.00	100.00	100.00

Source Calculated from UU (2010, 2011, 2012, 2013, 2014)

fee collected from the residential students, though not a very significant source, has gone up steadily (Table 6.4).

Government sources contribute more than 70% to the total receipts of the university, whereas in case of the college, its percentage share shows a declining trend (Tables 6.5 and 6.6). In 2014–15, government funding accounts to only 45% of the

Table 6.4 Receipts of UN college of science and technology (autonomous), Adaspur, Cuttack, from other than government sources 2010–15 (in percentage)

Source	2010–11	2011–12	2012–13	2013–14	2014–15
Admission fee	0.05	0.05	0.04	0.03	0.03
Enrolment fee	7.39	9.20	6.70	7.45	7.20
Examination fee	9.93	10.23	7.94	6.42	8.15
Medical/insurance fee	0.11	0.10	0.09	0.08	0.06
Sports/recreation fee	0.94	0.89	0.78	0.75	0.68
Hostel fee	5.53	8.33	10.79	5.67	9.62
Other academic receipt	73.36	65.38	66.31	75.87	69.28
Interest	1.21	2.63	5.32	2.90	2.07
Miscellaneous	1.68	3.19	2.04	0.82	2.90
Total	100.00	100.00	100.00	100.00	100.00

Source Calculated from UNCST (2010, 2011, 2012, 2013, 2014)

Table 6.5 Total receipts of the Utkal University during 2010–15 (in percentage)

Year	Government sources	Non-government sources	Total receipts
2010–11	69.31	30.69	100
2011–12	73.19	26.81	100
2012–13	76.85	23.15	100
2013–14	74.75	25.25	100
2014–15	73.04	26.96	100

Source Calculated from UU (2010, 2011, 2012, 2013, 2014)

Table 6.6 Total receipts of UN college of science and technology (autonomous), Adaspur, Cuttack 2010–15 (in percentage)

Year	Government sources	Non-government sources	Total receipt
2010–11	52.61	47.39	100
2011–12	59.92	40.08	100
2012–13	51.32	48.68	100
2013–14	44.85	55.15	100
2014–15	44.91	55.09	100

Source Calculated from UNCST (2010, 2011, 2012, 2013, 2014)

total receipts of the college. Thus, receipts from non-government sources are gradually increasing in significance and importance for the college. This may be due to the greater flexibility that the college authorities enjoy as a private-aided entity, where the policy is determined by a proactive management board. Neither of the institutions receives any funds from consultancy activities by faculty members, alumni fund, outsourcing of institutional infrastructure, or from international students. These are potential sources which can be mobilised in the future for generating more funds.

Patterns of Expenditure

On the expenditure side, establishment expenditure is the single largest component for Utkal University, though its percentage share has declined from 71% in 2010–11 to 48% in 2014–15 (Table 6.7). Second, the refundable expenditure (on caution money, income tax, salary saving schemes like LIC, CPF, GPF, repayment of bank loans by employees, employee welfare fund, professional tax, and GIC) show a great deal of fluctuation over the period. Third, academic and administrative expenditures have remained relatively stable and are less than seven per cent and between 10 and 14% of total expenditure, respectively, during the period. Fourth, repair and maintenance expenditure is abysmally low (less than one per cent) in the first four years, which is reflected in the poor condition of the existing infrastructure.

Table 6.7 Expenditure pattern of the Utkal university during 2010–15 (in percentage)

Year	Establishment expenses	Academic expenses	Administrative expenses	Repair and maintenance expenses	Refundable expenses	Total expenses
2010–11	71.20	3.82	11.21	0.61	13.16	100
2011–12	72.58	5.15	12.74	0.37	9.16	100
2012–13	71.98	6.60	13.61	0.32	7.50	100
2013–14	59.89	3.07	10.90	0.12	26.02	100
2014–15	47.64	4.42	14.72	5.78	27.44	100

Source Calculated from UU (2010, 2011, 2012, 2013, 2014)

Table 6.8 Expenditure pattern of UN college of science and technology (autonomous), Adaspur, Cuttack, during 2010–15 (in percentage)

Year	Establishment expenses	Academic expenses	Administrative expenses	Repair and maintenance	Total expenses
2010–11	84.93	5.14	7.52	2.41	100
2011–12	61.19	12.06	22.48	4.28	100
2012–13	64.83	10.00	20.02	5.15	100
2013–14	65.79	13.79	16.90	3.53	100
2014–15	66.11	12.47	16.62	4.79	100

Source Calculated from UNCST (2010, 2011, 2012, 2013, 2014)

For the college too, lion's share of total expenditure is claimed by establishment expenditure which covers the wages and salaries of the employees. The academic expenditure has also increased in absolute terms as well as in percentage terms (Table 6.8). Administrative expenditure exhibits relatively greater fluctuation, while expenditure on repair and maintenance as percentage of total has remained less than five per cent.

Monitoring Utilisation

Utkal University has an internal audit wing which functions in a regular fashion. It has a mandate to monitor that the funds are utilised by different constituent bodies of the university as per the provisions of the appropriate finance rules. Besides, the university has a budget cum accounts officer and a comptroller of finance, who are normally on deputation from the state government through whom the files involving finance/expenditure are routed. Monitoring is also done by the officer on special duty (Finance) and at the top of the pyramid is the vice-chancellor to ensure that procedure is in place. When the proposed expenditure exceeds '20,000,000', then it has to get

a clearance from the syndicate. The local fund audit carries out the external audit of the university twice a year.

There is no internal audit cell in UN College of Science and Technology (Autonomous), Adaspur, Cuttack, but monitoring of expenses is carried out routinely by the accounts section headed by the accounts bursar and the principal. External audit is done once a year by the local fund audit.

Extent of Resource Surplus/Deficit

A look at the amount of funds requested by the institutions and the amount they have received from different levels of government can shed lights on whether they are resource surplus or deficit. Tables 6.9 and 6.10 present the gap between the amounts requested and received by Utkal University from central and state governments, respectively.

As is evident, the amount of funds received by the university invariably falls short of the amount requested, which makes it a funds deficit institution. Defining deficit as the gap between funds requested and received, the deficit as a percentage of the amount requested varies from year to year, and goes up to 94% in 2014–15, so far as central government grants are concerned. The university has never received any plan grant from the state government in any year, with the exception of 2014–15; thus, the deficit is 100% in all other years. The amount of deficit as a percentage of amount requested so far as non-plan grants from the state government, shows an increasing trend over the period under consideration, reaching a peak of 43.4% in 2014–15. This

Table 6.9 Gap in the grants (plan) from central government for Utkal university

Year	Gap as a % of amount requested
2010–11	42.21
2011–12	87.04
2012–13	86.74
2013–14	31.74
2014–15	93.8

Source Field data

Table 6.10 Gap in the grants from state government for Utkal university

Year	Non plan grant as a % of non-plan request
2010–11	2.17
2011–12	24.34
2012–13	18.43
2013–14	40.59
2014–15	43.44

Source Field data

Table 6.11 Gap in grants from UGC for UN college of science and technology (autonomous), Adaspur, Cuttack

Year	Plan gap as a % of plan request
2010–11	33.03
2011–12	49.43
2012–13	−4.97
2013–14	−538.97
2014–15	24.09

Source Field data

kind of situation has its repercussion not only on the infrastructure development and maintenance but also on the teaching–learning process. Most importantly, it adversely affects research activities in the university.

So far as UN College of Science and Technology is concerned, the grant from the state government is as per the request of the institution. The college also receives grants from UGC under plan head, and the amount received from UGC under plan head is falling short of the amount requested during three years, indicating a deficit, and it exceeds the amount requested in two years, thus indicating a surplus (Table 6.11).

Utilisation of Funds

Having looked at the fact that the institutions of higher education in Odisha under study are mostly funds deficit institutions, we shall turn to look into the extent of utilisation of the received funds. Tables 6.12 shows that both the institutions have unutilised funds left in each of the years under observation.

Table 6.12 Utilisation of funds status in the Utkal university and UN college of science and technology, Adaspur, during 2010–15 (in percentage)

Year	Utkal university		UN college of science and technology	
	Utilised	Unutilised	Utilised	Unutilised
2010–11	97.48	2.52	69.34	30.66
2011–12	97.05	2.95	63.47	36.53
2012–13	96.48	3.52	80.22	19.78
2013–14	96.33	3.67	76.62	23.38
2014–15	89.90	10.10	72.86	27.14

Source Calculated from UU (2010, 2011, 2012, 2013, 2014), and UNCST (2010, 2011, 2012, 2013, 2014)

Total amount of unutilised funds as a percentage of total receipts of Utkal University varied around three to four per cent for the first four years but went up to 10.10% in 2014–15 (Table 6.12). This sudden hike is because of the fact that during that financial year (2014–15), the university received special plan-infrastructure grant from the government of Odisha, the whole of which could not be utilised during that period. The situation for UN College of Science and Technology (Autonomous), Adaspur, Cuttack, is similar too; but the amount of unutilised funds as a percentage of total receipts is much higher. It was 31% in 2010–11, increased to 37% in 2011–12, again went down to 20% in 2012–13, and in 2014–15, the surplus was at 27% (Table 6.12).

The reasons for funds not being utilised in the year they are received are; first, the difficulty in spending as per rule because of archaic financial rules in vogue; second, the usual delay in the funds in receipt of funds, especially from UGC, which makes it impossible to utilise them in the same financial year.

Activities Affected by Delay in Resource Availability at Institutional Level

The state governments usually give two types of grants to the state universities, namely recurring and non-recurring. The former comes in the form of block grants, maintenance grants, supplementary grants, ad hoc grants, etc., and the later takes the form of building grants, hostel grants, equipment grants, books/journal grants, etc. Three stages are followed for such grants-in- aid. First, the universities are supposed to submit their budgets to the state government. Second, the government sanctions the grants. And third, the grants are released either on instalment basis or in full. The procedure is the same for aided (private) colleges as well.

At times, there are delays in the actual release of these grants, in which case, the maintenance of existing and creation of new infrastructure gets affected in Utkal University. To tide over such temporary distress, the university approaches the government for an early release and at times transfers funds from one account to another.

Such delays in case of UN College of Science and Technology (Autonomous), Adaspur, Cuttack, not only adversely affect the infrastructural proposals but also make it difficult to make the payment of salaries to the permanent teaching faculties. The college takes recourse to transferring funds from one account to the other and also tries to prioritise the expenditures. It undertakes the most essential expenditures and postpones others to a later date.

Challenges Faced in the Mobilisation of Resources

The reality of present times is the decline in funding from government to the higher education institutions on one hand and the increasing demand for higher education on the other. In order to bridge the gap and ensure provision of quality education, which will ensure the recipients of such education, a competitive advantage in the globalised labour market, the providers of higher education are expected to mobilise their own resources. The institutions of higher education face several unique challenges in their effort to mobilise funds on their own. For a state University like Utkal, the challenge is socio-political in nature, in the sense that these institutions are supposed to cater to the aspirations of the people for higher education at an affordable cost. Experience has shown that any attempt to raise the fees from their levels which have been prevailing for thirty-five years or more has resulted in serious obstacles in the form of strikes and student unrest. The private-aided colleges like UN College of Science and Technology (Autonomous), Adaspur, face the challenge of being located in a semi-urban set up, close to the capital city of Bhubaneswar, which is an educational hub of eastern India. It has to face competition from the multiplicity of public-aided institutions, which provide education/skill at low costs, as well as from private institutions which do the same at high costs but claim to ensure value for money to the stakeholders. So, the avenues for mobilising their own resources for both the institutions are rather limited, which the higher education policy of the state must take into account.

Conclusion

There is a strong need to rationalise the financial procedures for utilisation of funds, which is preventing the institutions of higher education from making proper use of available funds. It is also seriously limiting the funds absorption capacities of state universities and colleges. The delays in sanction and release of funds from government agencies like the UGC should be eliminated completely. The tuition and other fees should index to inflation periodically, which will enable the institutions to hike them intermittently to recover, at least partly, the cost of providing higher education. If need be, there should be special legislation to facilitate this. Radical simplification of procedures must be undertaken at the university/college level so that the delays in channelizing funds to appropriate departments/units can be avoided and the utilisation certificates are submitted and audited in time.

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Chapter 7
Innovations in Financing of Higher Education: The Case of Selected Universities in Kerala

C. Krishnan

Abstract A general trend noticed in any countries and in India is that the public funding for higher education institutions is not keeping pace with their expansion requirements. Most institutions are moving away from a total reliance on public funding to non-governmental sources of funding. Based on a detailed analysis of data from selected universities of Kerala, India, this paper shows that despite efforts to mobilize resources on their own, they succeed to only limited extent to substitute public funding with own funding. The most important and reliable source of non-government funds is fee from self-financing courses. Universities have succeeded in mobilizing a good share of their resources from student fees collected from students attending self-financing courses. However, the empirical evidence shows that reliance on self-financing courses alone will not be able to make universities financially self-reliant and plan for their future activities.

Keywords Non-governmental sources · Self-financing courses · Student fees · Resource generations · Internal revenue · Innovative practices

Introduction

The increasing demand for higher education in states like Kerala may be attributed to the universalization of secondary education. However, the matter of financing the expanding higher education requirements has become a great challenge for the state in the context of its fiscal crunch. Consequently, issues related to strategies for financing higher education have become a topic of lively debate in Kerala.

The global trend in financing of higher education shows a move away from reliance on state funding to non-state funding. As education becomes costlier, the public exchequer alone cannot support the cost of higher education. This has led to many experiments like setting of financially self-sustainable universities. Indian universities have begun such strategies in the late 1980s and became intense during the

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1990s. Among the many strategies resorted for enhancing non-state resources for financing, higher education includes donations, alumni contributions, enhanced fees and similar other models.

This chapter is based on a study on the sources of finances and resource mobilization strategies adopted by two universities in Kerala, to meet their academic and non-academic obligations. The present study is based on secondary sources of data.

The two universities considered for the present study are the University of Kerala and University of Calicut. The former is the oldest university in the state and the latter is the largest university in terms of number of affiliated colleges, number of programmes offered and number of staff employed. The analysis reveals that despite the intensive efforts of these universities in raising internal resources to finance the cost of higher education, their dependence on state grants is still on the higher side.

The Background

Globally, universities are moving towards becoming self-sustaining institutions. Their dependence on state grants has drastically come down and they have been successful in identifying their own resources. In addition, the demographic dividend as experienced in several developing countries cast more demand for education at all levels. This has pushed up the cost of providing education which the state alone cannot address. As rightly pointed out by Tilak (1988) that the resources that are being poured into the university system have been increasing at a fast rate, faster than the general economic indicators, but the requirements of the universities have been increasing at a much faster rate, widening the gap between the two continuously. This situation of 'increased cost and diminished income,' leading to a crisis or a near-crisis has been a basic characteristic of Indian universities.

To resolve the problem of escalating cost, several attempts are being tried globally. The European Universities Association (EUA) has taken up this issue very seriously in early 2005 and has commenced a project to examine the European universities' progress towards identifying the real cost of their activities and the relationship between this progress and individual universities' autonomy and accountability.

In the Indian scenario, such experiments were visible from the late 1980s and became powerful by the 1990s. It has been triggered off with the National Policy on Education (NPE, 1986) which has categorically stated that education is the major contributor towards the development of the nation and education needs to be emphasized on consolidation and expansion of facilities in the existing institutions. Government at the national level took several measures and appointed several committees for the purpose of consolidation and expansion of resources and institutions in such a way that it relieves the burden on the state apparatus and shifts a larger portion to the institutions and users.

Theoretical basis for the withdrawal of the state funding is that there is a gradual realization that education has turned out to be a non-merit good which needs to be financed by the users themselves. Subsidies are applicable and effective only if there

is a positive difference between the social and private benefit of the good consumed. When there is a positive difference and the social benefit is much greater, in such cases, there is the justification for subsidy of the product of public provision of it. The burden to the state exchequer is compensated by the social benefit generated by the product concerned. As it has been stated in the Discussion Paper by Ministry of Finance that education is no more a public or merit good, as the sum of private benefits and the public benefits are mostly same in all cases, and this has been highlighted as the rationale for shifting the burden to the students. The Prime Minister's task force on education in its report submitted in April 2000 recommended full cost recovery in higher education. The report has also recommended that the state should finance only those disciplines which have no market orientation. As a part of withdrawal of state funds, it has been decided by the Ministry of Human Resources Development (MHRD) in May 2000, that the universities and colleges should raise 7% of their requirements of the recurring expenditure by their own resources and should raise it by 1% every year to reach the target of 15%.

In the context of the governments' inability to earmark higher budgetary allocation to the higher education sector, the Government of India had constituted two committees to suggest measures for the mobilization of resources. The Committee under the Chairmanship of D. Swaminathan (AICTE, 1994) looked into the issue of mobilization of resources for the technical education, while the Committee under the Chairmanship of Justice K. Punnayya (UGC, 1993) was set up to recommend actions to enhance the resources of Central Universities. Both of these committees underlined the need for initiating special efforts by the Universities to raise their own resources. Their reports also reiterated that quality, efficiency and innovativeness must be rewarded and institutions failing to improve financial and academic discipline should be discouraged and provided with disincentives.

The government is facing an acute shortage of resources both at the central and state levels. This financial stringency led to a distribution of the available resources among competing uses in a selective way. Hence, the higher educational institutions are finding it very difficult to function effectively relying on the government fund alone. This revelation prompted the universities across the country to find out alternative sources of revenue to bridge the gap between the requirements and available resources. Several state universities have been in the fray to strengthen their internal revenue resources. This own funds can be used effectively for the provision of quality education. This study highlights which alternative sources have been employed by the state universities in Kerala state, and to find out whether the available alternative sources were adequate to compensate the shortfall in the government allocations to universities.

When we look at the different sources of finance of the universities, one can find that the universities of Kerala have followed a uniform pattern. In their annual reports and budgetary documents, their sources of finance have been categorized under four heads. They are:

(a) Grants: The major components of this category include grants from State and Central Governments and University Grants Commission (UGC).

(b) Own Resources: The revenues generated by the universities by way of fees and conduct of self-financing programmes are the major components of this head.
(c) Earmarked funds: In this head, the receipts in respect of specific projects like fellowships for research and the activities of National Service Schemes are included.
(d) Debts and deposits: Under this category includes receipts from loans and advances, provident funds, deposits and refund of deposits.

University of Kerala

The University of Kerala is the oldest university of Kerala. It was established by the name, 'University of Travancore' in 1937. It was reconstituted as University of Kerala by the Kerala University Act of 1957 and presently governed by the Kerala University Act of 1974 passed by the Kerala State Legislative Assembly, with state-wide jurisdiction. Later on, with the formation of University of Calicut and Mahatma Gandhi University, the jurisdiction of Kerala University has been confined to Thiruvananthapuram, Kollam and Alappuzha districts and some parts of Pathanamthitta district. The university is functioning in a campus spread over in a landed area of 394 acres. The university has 41 teaching and research departments organized under 9 schools and 224 affiliated colleges (20 government, 45 aided, 1 private and 157 unaided and 1 under direct management).

Let us now examine the financial position of Kerala University. Table 7.1 provides a bird's eye view of the receipts and expenditure of the university over a period of seven years from 2008–09 to 2014–15.

A close perusal of the table reveals that there has been tremendous increase in both receipts and expenditure during the period under study. The receipts of the university comprise mainly grants and own resources. Grants are of two types, viz. plan and non-plan. Own resources are revenues generated by the universities by their own efforts. The proportion of grants and own resources of Kerala University is placed in Table 7.2.

Tables 7.2 and Fig. 7.1 clearly state that the share of grants has been steadily increasing over the period of study, while the share of own resources is also showing

Table 7.1 Receipts and expenditure of University of Kerala (Rs. in lakh)

Items	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
Receipts	12,351.78	15,457.50	1736.78	19,955.46	23,965.61	28,990.80	32,366.85
Expenditure	12,058.55	13,748.46	14,376.82	19,541.25	22,014.37	24,630.36	28,465.78
Percentage of expenditure	97.62	88.94	82.79	97.9	91.8	84.9	87.8

Note Excludes Receipts and Payment included under the head 'Debt and Deposits'
Source Kerala University, 2005–06 to 2011–12

Table 7.2 Resource generations in Kerala University (%)

Particulars	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	Averages
Grants	72.77	70.54	69.28	58.53	65.41	62.33	64.85	68.40	65.13
Own resources	27.23	29.46	30.72	41.47	34.59	37.67	35.15	31.60	34.87
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source Annual Accounts, Kerala University (Various years)
Note Total receipts other than Debts and Deposits

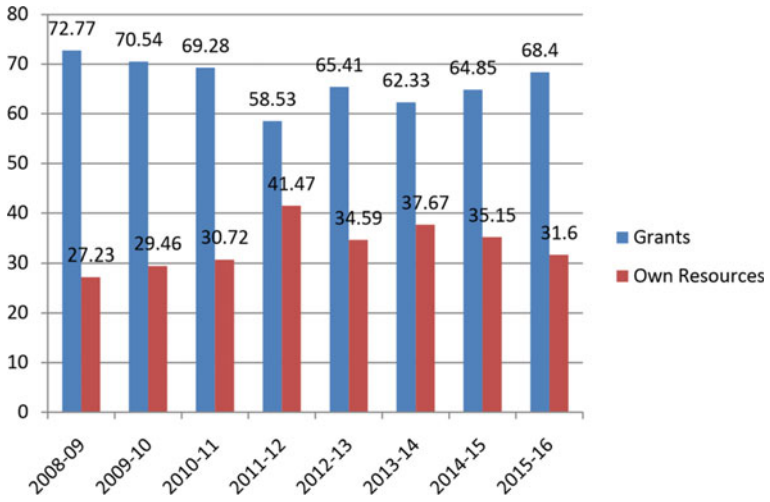

Fig. 7.1 Resource generations in Kerala University 2008–09 to 2015–16 (%)

an increase over the years. Kerala University has been able to generate 34.87% of the total resources from the internal resources on an average for the period under consideration, while the average grants during study period is 65.13%.

It may be interesting to look into the components of internal resource generated by the University of Kerala. Table 7.3 and Fig. 7.2 illustrate the case. The major components of internal resources are general administration and examination fees. Unlike the University of Calicut, distance education and self-financing courses have not formed the major contributors towards internal resources in the Kerala University. Distance education has been contributing only 7.93% of the internal resources. Similarly, the contribution of self-financing programmes through the university centres is declining in their importance. This may be due to the specific demographical and historical circumstances of the population in the jurisdiction of Kerala University. The geographical area under the university had achieved much progress in education in the early years of the formation of the state of Kerala itself, as the region was under the direct rule of the Rajas of Travancore, who had been promoting education in a big way. Perhaps, this aspect might have reduced the market and scope for distance education and unaided programmes in the functioning areas under the Kerala University.

A comprehensive view of the receipts of the University of Kerala is provided in Table 7.4. The receipts include grants, own resources, scheme funds and debts and deposits. The category-wise analysis of the receipts reveals that non-plan revenue constituted around 80% and only 20% comprises the plan receipts. Revenue from examinations and academic and non-academic departments constitutes the major components of internal revenue.

The other side of the university finance is its payments. Similar to the revenue generated, the university has to incur expenses for the management of various sections

Table 7.3 Components of internal resources in Kerala University 2008–09 to 2015–16 (%)

Particulars	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	Average
General administration	18.72	17.20	15.37	11.92	12.23	12.24	12.01	14.84	15.00
Examination fees	31.30	34.63	41.87	41.64	34.86	40.12	38.12	36.42	38.05
Academic depts.	4.62	7.02	8.12	5.97	5.62	5.03	5.21	5.39	6.51
Non-academic depts.	3.59	2.49	2.93	1.04	1.63	1.99	2.40	1.98	2.32
Distance education	8.30	7.72	7.27	6.26	7.02	7.36	6.43	7.23	7.93
Self-financing programmes	23.22	17.97	9.64	9.18	13.65	14.63	13.12	12.12	12.75
Miscellaneous	10.24	12.96	14.79	23.99	24.99	18.63	21.11	22.02	17.44
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source Kerala University, annual reports and budget documents (various issues)

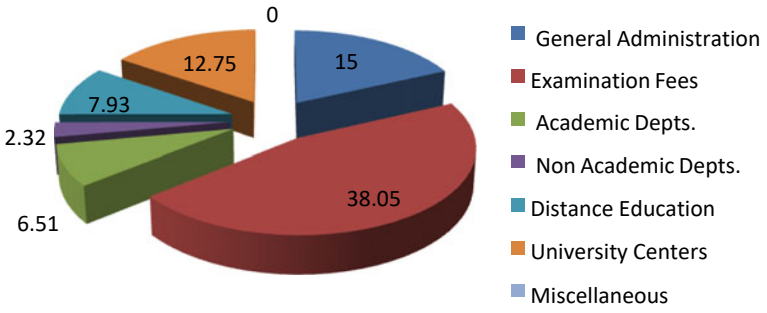

Fig. 7.2 Components of internal resources in Kerala University—average from 2008–09 to 2015–16 (figures are in percentages)

Table 7.4 Composition of receipts of University of Kerala (in %)

Composition of revenue	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
Internal revenue	35.43	36.74	35.71	41.47	34.59	37.67	35.15
Non-plan	47.64	47.17	42.87	44.77	8.28	9.96	10.82
Total non-plan (1 + 2)	83.08	83.91	78.59	86.274	59.78	73.42	82.78
Total plan	7.85	6.81	14.49	6.82	21.14	18.89	12.07
Scheme funds	9.06	9.29	6.90	6.94	19.06	7.67	5.14
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source Ibid

and activities in the form of salary, pension, remuneration, purchase, etc. An analysis of the expenditure of Kerala University is provided in Table 7.5.

Table 7.5 Components of expenditure of University of Kerala (in %)

Expenditure items	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
Total revenue expenditure	89.56	86.33	92.18	91.28	90.98	89.87	90.37
Capital expenditure	2.07	3.16	0.90	1.29	1.55	2.25	0.63
Earmarked funds	8.37	10.51	6.92	7.42	7.45	7.86	8.98
Total expenditure (other than debts and deposits)	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source Ibid

Table 7.6 Receipts and expenditure of University of Calicut (Rs. in lakh)

Items	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
1. Receipts	10,577.86	11,840.73	1329.99	14,356.14	18,080.14	20,972.89
2. Expenditure	9401.32	10,088.93	12,905.43	16,854.91	17,799.27	19,972.62
% of expenditure to receipts	88.87	85.20	97.06	117.40	0.98	95.23

Source Annual budget of University of Calicut, various years
Note Figures excludes receipts and payments in debt and deposits

University of Calicut

The University of Calicut was established in 1968. The university is functioning in a campus area of 526 acres with a student population of more than 3 lakhs. The command area of the university covers five districts of the northern region of Kerala and the Union Territory of Lakshadweep. The annual intake of the university is 100,000 students, and it has a strength of 1750 non-teaching staff members and 152 teaching faculty members on its payrolls. The number of pensioners on 31 December 2015 was 1475. While going through the annual accounts and reports, one can clearly see that it has been generating its own resources continuously since many years. Tables 7.6 and 7.7 clearly illustrate this fact.

It is clear from Table 7.7 and Fig. 7.3 that there have been concerted efforts for the generation of own resources by the University of Calicut during the period of study. However, grants continue to be a major source of revenue for the Calicut University too. The resources generated from own sources constitute 46.70% on an average for the last eight years ending on 2015–16, while the grant component has been on the decrease, though the magnitude is so small. All this shows that there has been concerted efforts on the part of the University towards the generation of internal resources during the recent years.

A detailed scrutiny of the composition of internal resources generated by the University of Calicut during the period under study reveals that examination fees, income from self-financing courses and distance education programmes prominently figure out as seen from Table 7.8 and Fig. 7.4. These three sources comprise about 83% of the internal resources of the University of Calicut. Component wise, 38% of the total own resources has been contributed by the examination fess, followed by self-financing programmes (33%) and distance education programmes (13%).

Discussion

From the aforesaid analysis about the resource generation and utilization in the selected universities of Kerala has brought out some exciting revelations. While the universities across the world are moving towards a self-sustaining status, the

Table 7.7 Resource generation in Calicut University 2008–09 to 2015–16 (%)

Year	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	Average
Grants	48.74	48.92	52.10	49.99	41.60	39.13	45.14	47.34	46.62
Own resources	37.55	39.42	35.49	36.1	38.40	40.20	38.80	42.84	38.70
Debts, deposits and scheme funds	13.71	11.66	12.41	13.91	20.00	20.67	16.06	9.82	14.78

Source Ibid

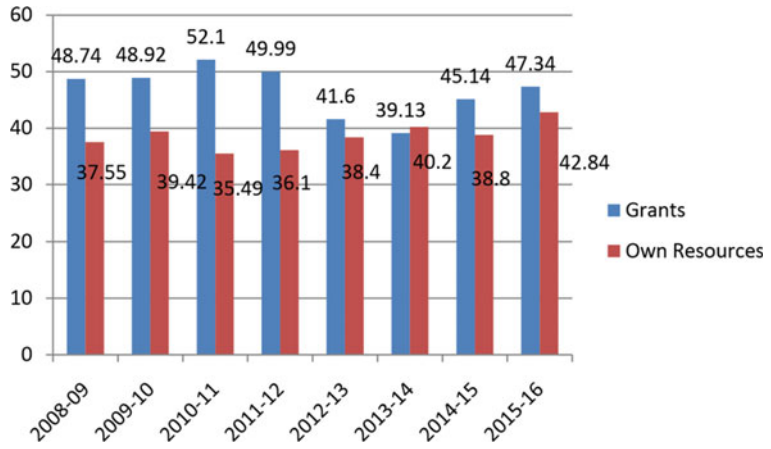

Fig. 7.3 Resource generation in Calicut University 2008–09 to 2016–17

universities under study are still largely dependent on state grants. Even though these universities are active in generating their own revenues, it is in no way able to cover their recurring and non-recurring expenses. At the same time, it is a matter of concern that many state governments are facing fiscal crisis, and hence, the size of grants to universities may also be affected. So, the dwindling share of state support to universities compels them to raise more internal resources as rightly mentioned by Tilak and Rani (2003). Since in most of the universities hike in fees is near maximum, there is a need to raise internal resources through increased consultancy and research activities, sale of university publication, judicious use of landed property and so on. Efforts to tap resources through industry-academia linkages, private donations and endowments, alumni associations, etc. may also be thought of.

One can see different practices among the countries in acquiring resources in their universities. For example, in the United States, about 22.2% of the funds of the universities were generated from sales and services alone (NCES, 1997). Similarly, in China, the total self-generated funds were from university enterprises, commissioned training for enterprises, educational services, research and consultancy, logistic services, donations, student tuition fees and other funded activities (World Bank, 1997).

However, in the universities under study, one cannot see any such innovative practices. They were struck to the conventional methods of raising fee, offering of more self-financing courses, distance education programmes, etc. In all these experiments, the burden is shifted to the shoulders of students. In the case of Kerala University, the major component of own resources is the examination fee. Self-financing sector has not formed the most significant component in the case of Kerala University. The picture is entirely different in the case of Calicut University, where the revenue from the self-financing sector forms a major share of 33% against 38% from the examination fees (Krishnan, 2021).

Table 7.8 Components of internal sources in Calicut University 2008–09 to 2016–17 (%)

Particulars	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17	Average
General administration	12.83	12.26	10.73	11.02	11.71	12.22	11.52	10.79	10.06	11.00
Examination fees	38.37	42.02	40.68	36.31	40.42	40.86	38.92	40.38	40.71	38.05
Academic depts.	0.44	0.64	0.82	0.93	0.43	0.69	0.86	1.05	1.28	1.25
Non-academic depts.	3.20	3.17	3.78	2.81	2.24	1.19	0.86	2.00	1.61	1.92
Distance education	12.47	12.72	13.84	15.59	14.63	14.02	15.01	13.01	13.2	13.93
Self-financing programmes	30.00	27.26	28.63	30.18	27.65	29.22	31.12	31.12	31.00	31.41
Miscellaneous	2.69	1.93	1.52	3.16	2.92	1.80	2.66	1.65	2.16	2.44
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00

Source Annual accounts and budgets estimates of respective years, Calicut University

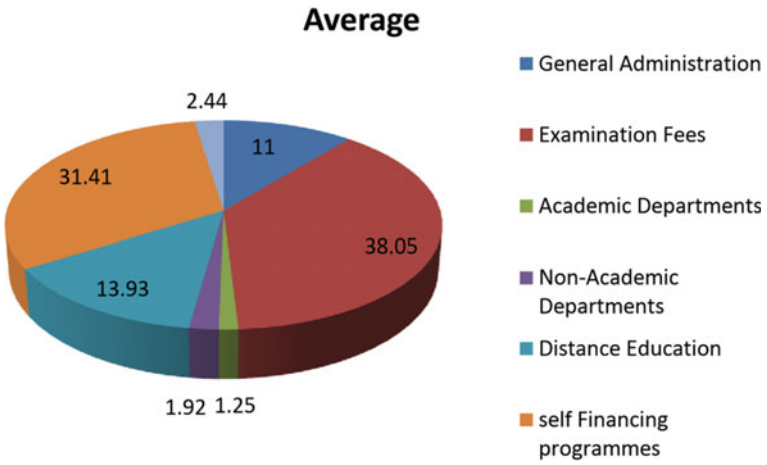

Fig. 7.4 Average internal revenue from 2008–09 to 2016–17 (%)

There is another crisis in the state universities. A discussion with the top officials of the selected universities under the present study brought out the fact that the non-plan grants released by the government is most often insufficient to cover the expenses for salary and pension payments. This issue is pertinent when there is a salary revision and the like. This has forced the universities to use the internal revenue for meeting such expenses. The universities are even found to be diverting the provident funds frequently for the payment of pension and salary.

This has affected badly the developmental requirements of the university leading to offering of low-quality education.

Due to the increase in the number of examinations as a result of the implementation of semester pattern in all courses, the expenditure under this head has widened. This has necessitated more centralized valuation camps and remuneration for valuation. University of Calicut alone conducts around 20,000 examinations in a year. It is also very difficult to mobilize adequate internal resources by hiking various fees and charges periodically due to pressures exerted by students' union and political parties. One can also see higher non-teaching to teaching staff ratio in the universities in Kerala.

Conclusion

The aforesaid discussion and analysis of the innovative financial resources for higher education from the experience of two selected universities in Kerala bring forth interesting insights. The self-reliance of universities in India is still a delusion unlike as envisaged by the European or American counterparts. The Universities in India despite the robust instructions of the UGC and the Central Government continue to

persist on the grant, without any efforts for recognizing the new sources of resource development. The fundamental components of resources are still the cost-sharing devices like self-financing programmes and the examination fee. They have not headed for any type of cutting-edge techniques for resource generation like consultancy projects or knowledge generating tools that can provide sustainability in future. It is a good time that the Indian Universities should nest to recognize and draw on the innovatory flow of resources that can enrich towards future sustenance of them, which will save them from extravagant reliance on grants. Periodic revision of fees, setting of pension funds, instituting more endowments, tapping the large army of alumnae, etc. can be thought of in this juncture. Both the universities under study have a large area of land under their possession. In a land scarce state like Kerala, where the average land per head is below 0.10 hectare, the land owned by the universities can be used for socially productive income generating activities. Similarly, the universities can strengthen their publication division for the publication of texts and reference books for its student community. At present, the students depend on private publishers and cooperative society publishers for their study materials and reference books. It is, thus, sure that if the universities are able to tap their idle resources productively, higher internal revenue can be generated without enhancing the tuition fees.

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Chapter 8
Public and Private Partnerships for Higher Education Financing

M. M. Ansari

Abstract The trend in funding higher education indicates that there is gradual shift towards greater reliance on non-government sources. The notable and reliable non-government source is students' fee contributions. This also puts pressure on the institutions of higher education to reorient their study programmes. Very often, market friendly courses have higher demand and higher potential to recover costs. The households in turn rely on student loans as an alternative to finance higher education studies. The paper argues that income contingent loan policy should be adopted to enable all the eligible higher education seekers to benefit from the programmes offered by the universities and colleges. Interface between industry and institutions should be made mandatory to ensure sharing of resources and quality assurance. The fact that 'not-for-profit' institutions are in any case generating huge revenues for private gains, there is no reason why a new window of 'for-profit' institutions should not be opened to augment additional resources to finance high quality of relevant education, research and training.

Keywords Public–private partnerships · Student loans · Income contingent loan · Not-for-profit institutions · For-profit-institutions · Quality assurance · Public expenditure · Private sector expenditure · Investment on education

Introduction

The trend in funding higher education indicates that there is a gradual shift towards greater reliance on students' fee contributions, which in turn is supported by easily available students loan. While higher education should largely be financed from public expenditure to assure high quality of teaching and research, the record of public funding suggests that it is unlikely that additional resources, commensurate with requirements, would be made available by the government due to the competing claims of priority areas, namely primary education. Students' (consumers) oriented

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approach to offer courses of study and recovery of educational costs should be evolved. As the existing education loan policy is inefficient, regressive and regionally skewed, it is argued therefore that income contingent loan policy should be adopted to enable all the eligible knowledge seekers to benefit from the programmes offered by the universities and colleges. An interface between industry and institutions should be strengthened to ensure sharing of resources and quality assurance and simultaneously incentivizing organic development of the industry-institution interface.

The fact that 'not-for-profit' institutions are in any case generating huge revenues for private gains, there is no reason why a new window of 'for-profit' institutions should not be opened to augment additional resources to finance high quality of relevant education, research and training. Efficiency and equity considerations make a strong case for the beneficiaries of higher education making a greater contribution. They would also allow government funding to be targeted more effectively to support potential entrants from lower income backgrounds where participation has been persistently low, despite free or low-cost education. (Greenaway & Haynes, 2003).

The Context

Higher education is an important driver of individual mobility and critical for socioeconomic progress. A well-educated and skilled workforce is vital for accelerating economic growth. Industry and business organizations require a highly skilled workforce to meet the demands of increasingly competitive global economy.

Most higher education institutions (HEIs) are producing graduates in subjects that the job market no longer requires. Interface between institutions and industry for sharing knowledge, technology and financial resources is almost negligible which is why India is unable to exploit its full potential to reap the benefits of 'population dividend'.

International comparisons show that India is lagging far behind on almost all the parameters of human resource development, namely average years of schooling of working population, gross enrolment ratios, research and innovation activities and overall per unit expenditure on education and health care.

The Global Competitiveness Report, 2016–17 (World Economic Forum) has observed that: *'Higher education and training has also shown no improvement...Huge challenges still lie ahead on India's path to prosperity'*.

Improving quality and fostering excellence is a major challenge that HEIs face today. The institutions are required to attract and retain competent faculty, raise teaching standards, encourage cutting-edge research and nurture talent. But, this requires massive investment in quality education, which depends on the national efforts to mobilize required financial resources from diverse sources for meeting the rising costs of education, training and research.

As post-secondary education has become increasingly important for realizing individual and societal aspirations, there have also been growing concerns about the cost and affordability of higher education, which we shall examine herein below.

Financing of Higher Education Institutions (HEIs)

Higher education is provided through a complex public and private partnership, with different types and levels of institutions offering a wide range of educational programmes. While the HEIs established by the central and state governments receive full or partial budgetary support by the respective government, the private sector HEIs are entirely financed from the collection of tuition fees and other charges, as discussed (Table 8.1).

In addition to the above institutions, there are as many as 38,498 colleges and 12,276 stand-alone institutions, which offer various degree/diploma programmes. Of these, only 23% are fully supported by the government, the centre and the states, while 14% are government-aided institutions. A vast majority of these institutions, 63%, are self-financing institutions. And, private not-for-profit institutions are growing most rapidly.

While the government expenditure—recurring and non-recurring—is almost fully accounted for in the annual budget of the respective government, the private investments on building and other infrastructure, recurring expenditure on staff salaries and collection of various charges from the students are not available, as such data are not compiled and analysed by any agency. In effect, thus, revenue and expenditure data relating to private HEIs are not available for objective analysis and for drawing relevant inferences.

Universities and colleges under private management have recorded unprecedented quantitative expansion, which have considerably improved access to technical and professional education. The initiatives taken by these institutions for enhancing quality of education have however been grossly inadequate, as evident from the following.

Table 8.1 Public sector HEIs

A. Central HEIs	
Central open university	1
Central university	46
Deemed to be university (of which partially supported 11)	43
Institutions of national importance	75
B. States' HEIs	
State university	316
State open university	5
Institutions established under state acts	5
C. Private sector HEIs	
Private universities	181
Private open university	1
Private deemed to be university	79
Total ($A + B + C$)	760

Source Compiled by the Author from AISHE 2014–15, 2016

Table 8.2 Universities accreditation status as on 29 March 2016

Category of universities	NAAC accredited			
	A	*B*	*C*	Total
Central universities	14	10	00	24
State universities	61	57	03	121
Private universities	03	08	00	11
Deemed to be universities	61	33	01	95
Institute of national importance	02	02	00	04
Total	141	110	04	255

Source NAAC (2016)

Quality of teaching and research activities in the aforementioned HEIs may be gauged by the status of accreditation by the accrediting body, namely National Assessment and Accreditation Council, as presented below (Table 8.2). Clearly, the picture is disappointing.

Public Expenditure on Higher Education

Despite oft-repeated commitments made by the successive central governments for allocation of six per cent of national income for education, the total expenditure has hovered around three to four per cent. The corresponding share for higher education is less than one per cent of GDP, which is considered inadequate for empowering 30 million post-secondary youth pursuing higher education in various universities and colleges.

The central and the state governments have been supporting higher education and research by providing full or partial grants, allowing the establishment of self-financing universities and colleges, providing free-ships and scholarships on merit-cum-means basis, including fiscal concessions for donations to institutions and extending subsidized student loans.

An analysis of public expenditure on education demonstrates that: '*Currently hardly 4 per cent of the GDP is spent on education as a whole and a mere 0.4 per cent on higher education and 0.1 per cent on technical education. It is pertinent to mention that the share of public expenditure on higher education ranges between 0.35 and 0.49 per cent of GDP and around 1.23–1.61 per cent of government total revenue expenditure and it has remained more or less at that level. The public expenditure on technical education is between 0.12 and 0.15 per cent of the GDP and 0.41–0.51 per cent of the total revenue expenditure*'. (Duraisamy, 2017, p. 4–5)

The centre and the states share the burden of funding higher education. Of the total expenditure on higher education, at least three-fourths is borne by the states, largely for meeting the recurring or maintenance expenditure, while the plan expenditure is largely borne by the centre, through UGC and other Central Ministries.

The central government has established overtime a number of HEIs, namely the central universities, IITs and IIMs but these institutes have not been strengthened in terms of required facilities for quality education and research. At least fifty per cent of HEIs are hardly operationalized in terms of required infrastructure; including staff and other students support services, as per stipulation of regulatory bodies, namely UGC, AICTE and MCI.

A rigorous examination of the relationship between the growth of expenditure on higher education-general and technical, and GDP for the period 2001 to 2012 reveals that '*the total allocation to higher education severely fall short of the set target-1.5 per cent of GDP, and also the needs of the system. Further, while the economy grew at steady rate of growth, allocations to higher education were subject to very steep cuts and increases. As a result, the decade can be described as a decade of ups and downs in public expenditure on higher education in India*'. (Tilak, 2015, p. 329)

In effect, thus, '*Per student public expenditure on higher education in nominal terms has increased in the post-independence period but the real expenditure has registered a negative growth for the period from 1990-91 to 2002-03*'. (MHRD, 2013, p. 45)

In the current fiscal year, 2016–17, for instance, budgetary allocation for higher education has been reduced to the extent of fifteen per cent, which will merely perpetuate the financial crisis and adversely affect the quality of education. Over forty per cent of faculty positions that are vacant for quite some years would never be filled due to financial constraints. Quality of teaching and research is thus compromised.

Financial allocation for the flagship programme, namely Rashtriya Uchhtar Shiksha Abhiyan (RUSA), which was implemented in 2013 for strengthening states' sector higher education, has also been downsized to the extent of eighty per cent. This is adversely affecting the state universities and the colleges, which have been receiving plan assistance from the UGC.

It is not only inadequacy of funds but also lack of objectivity in allocation of resources that affects the internal and external efficiency of HEIs. A sound perspective on the sources and methods of financing HEIs has not been evolved to expedite the process of human capital formation, which in turn has adversely affected the realization of productivity linked economic gains.

At least ninety-five per cent of enrolment burden and two-thirds of financial liability falls on the states' sector higher education. Unfortunately, the central and the state governments do not effectively cooperate and coordinate activities for the financial management of HEIs.

For instance, while the central government has encouraged establishment of a large number of self-financed institutions, as 'Deemed to be University', the states have deliberately encouraged the private sector to establish unitary universities for augmenting opportunities for higher learning. The establishment of private universities and colleges is viewed as a profitable venture; proliferation of such institutions tends to promote commercialization of education.

This has also tended to increase political interference in management of all types of institutions. Regulatory bodies, namely UGC, AICTE and MCI have therefore failed to enforce the prescribed norms and standards for quality assurance.

In fact, privatization of higher education has grown so much that over eighty per cent of universities and colleges are under private management, which enrol over sixty per cent of students. And, this trend is rising, even though at least one-third of approved seats in technical and professional disciplines remain vacant. The regulatory bodies like UGC, AICTE and MCI have not been able to control unfair practices that impinge upon the quality of higher education and research. And, the central and state governments are merely a silent spectator of this phenomenon, which has resulted in all kinds of malpractices in the functioning of HEIs. This has serious repercussions for establishing an equal and just society. Corruption in education sector has the potential to destroy the multi-cultural and democratic society like ours. The major stakeholders, the centre and the states, must collaborate for evolving a common strategy for promoting best practices for promotion of higher education, including allocation of resources from alternative sources.

Private Sector Expenditure on Higher Education

Higher education is considered both a public and a private good, which is construed to mean that the benefits of higher education accrues to the beneficiary students as well as the society that provides subsidy to these students. International experience suggests that mixed systems, in which public and private sector jointly participate in providing education, are most effective in striking a balance between higher education access and its quality.

India has indeed opted and evolved a mixed system of public and private financing of higher education. While reliable data on private sector expenditure on education are lacking, the size of expanded private HEIs indicates that more than half of the funding for HEIs comes from private sources, primarily the tuition fees that students and their families pay, often with the help of loans borrowed from the financial institutions.

The government expenditure the centre and the states are easily available for analysis. However, the corresponding data on private sector investments on land, building, labs, library and other educational infrastructure, including staff wages and salaries are hardly collected and analysed, which is why it is not easy to draw appropriate inferences. An idea of costs of education in private institutions is obtained from tuition fees and other charges made by them for different courses of study.

The policy on education reforms therefore focuses on the question of how to make private financing more effectively aligned with attainment and affordability goals. Specifically, how to devise new ways to use private financing to drive improvements in students' success, productivity, and affordability?

In this backdrop, an attempt is made to review the policy of students' fees contributions, which is largely financed through education loans that are raised from the 'financial market'.

Justification for Cost Sharing: Higher education provides tangible and intangible benefits to the society as a whole. But, the benefits primarily accrue to the graduates

themselves, which is why most students have incentive to enrol even though they have to pay something to attend HEIs. This therefore, raises the question as to what should be the share of cost burden on the beneficiary students and the government for providing subsidy to higher education.

It is argued that a system of higher education that is entirely publicly funded would be both inefficient and regressive—inefficient because it would thinly spread limited resources on a large students body without assuring quality and regressive because most of the beneficiary students would come from the middle and upper classes.

Growing enrolments, coupled with increases in the cost per student, increase the strain on public budgets. Public budgets are finite, and policymakers face competing priorities. In a system where institutions charged little or no tuition, expanding access would depend entirely on the level of public spending, which is subjected to political and fiscal constraints. If public spending does not keep pace with growing demand or costs per student, the supply of seats will be insufficient to meet the demand, leading to rationing, decline in quality or both.

It is no surprise, then, that many countries looking to expand access to higher education have expanded the role of private funding sources. India is no exception. The single most important driver behind the rise of private finance is the explosion of private demand for higher education (Hahn, 2007). In most countries, policymakers have slowly given universities more freedom to charge tuition and created income-based loan programmes to meet increasing demand. The private sector has been encouraged to establish and manage private colleges and universities. These changes helped expand the number of slots available to students in most areas of studies, particularly technical and professional disciplines. It is expected that the pattern of sharing the costs of higher education between students and taxpayers in line with their respective benefits would be most effective (Schleicher, 2013).

Implementation of Education Loan Policy: On these premise, the Central Advisory Board of Education recommended in 2005 to increase the student fees and to launch the scheme of loans for students who otherwise cannot afford to meet the cost of higher education. Accordingly, the Indian Bank's Association (IBA) rolled out a comprehensive educational loan scheme. The student loan scheme is included in one of the 16 sectors of the priority sector lending of the commercial banks, which includes public, private and foreign banks. The banks have been asked to fund student on liberal terms and conditions. The objective of the scheme is that no deserving student is deprived of higher education for want of finances (Duraisamy & Duraisamy, 2016).

Student loan scheme is extremely popular as evident from the increase in users, as many as nearly 2.5 million students, most of whom pursue technical, professional and management education avail of the loan facility. '*The number of student loan accounts increased from 112 thousand in 2000-01 to 24.8 lakhs in 2012-13 and amount lent has gone up from Rs. 10.3 crores to Rs. 509.5 crores. The CAGR for number of student loan accounts is 31.1 per cent, while the growth rate in total outstanding student loan amount is 39.3 per cent'*. (Duraisamy, 2017, p. 11).

These observations are corroborated by the detailed analysis of the sanction and disbursement of education loans, over the period of 2001 to 2014. It is noted that:

> *Average annual growth rate of loan accounts was 28.7 per cent, while growth in enrolment in higher education was around 12 per cent. Also amount of education loans released increased rapidly from Rs. 10,280 million in 2000-01 to Rs. 702,820 million in 2013-14. The increase was phenomenal at an annual average growth rate of 38 per cent, while rate of growth of government expenditure was at 15 per cent. Share of education loans constituted around 8.8 per cent in total expenditure on higher and technical education in 2000-01, increased to 85 per cent by 2006-07. Since 2007-08, education loans exceeded government expenditures on higher and technical education.* (Rani, 2017, p. 4)

Furthermore, it has also been observed that:

(i) The education loans policy caters mainly to the students enrolled in private institutions that offer jobs and market-oriented courses. The loan size and associated means-tested interest subsidy benefit the students who come from a relatively better off section of the society. In effect, thus, the mixed mode of funding education, direct government's institutional support and the cost recovery through students loan policy, is most suited to the requirements of students from middle and rich families. This has implication for perpetuating education-employment induced socioeconomic disparities.
(ii) The evidence, as above, suggests that technical and professional education is almost entirely financed from tuition fees paid out of students' loans.
(iii) The bulging size of outstanding loans, an average of over 82 per cent for the last five years, 2010 to 2014, raises serious questions regarding the sustainability of loan policy, as discussed below.

The fact that '*Loan advances increased at an annual average growth rate of 38 per cent. Similarly, loans outstanding also increased at an annual average rate of 34 per cent. Outstanding loan as a proportion of Student Loans constitutes around more than 60 per cent of loans released*' (Rani, 2017, p. 26). Non-performing assets (NPA) are estimated to be about 6–7% of the total sanctioned students' loans. A high ratio of outstanding loans or non-recovery of students' loans is a pointer of at least three major deficiencies in the management of loans.

First, the financial mechanism of approval, disbursement and recovery of loans is inefficient and lacks transparency. The reason for non-recovery of loans needs to be identified and rectified for efficient implementation of the policy.

Second, lack of employment opportunities or employability of beneficiary students may also be adversely affecting the paying capacity of students, which require a thorough investigation of linkages between the quality of relevant education and the world of work.

Third, the choice of courses of study and/or institutions of learning may also be responsible for un-employability or lower levels of earnings that may be impacting abilities to pay the borrowed money.

In the backdrop of high and rising demand for higher education, an estimate by the Reserve Bank of India (RBI) indicates that one per cent increase in GDP leads to five per cent increase in education loans, which may also be interpreted to mean that disbursement of loans may result in non-viability of loans due to the mounting of non-recovery of outstanding loans. It, therefore, calls for a renewed approach to promote a viable education loan policy, as discussed below.

The Way Forward

The trend in funding higher education indicates that there is a gradual shift towards greater reliance on students' fee contributions, which in turn is supported by easily available students loans. While higher education should largely be financed from public expenditure to assure high quality of teaching and research, the record of public funding suggests that it is unlikely that additional resources, commensurate with requirements, would be made available by the government due to the competing claims of priority areas, namely primary education. Students' (consumers) oriented approach to offer courses of study and recovery of educational costs should be evolved, as discussed below.

Fiscal Incentives for Investment by Students and Parents

Individuals may not be able to finance cost-prohibitive investment in higher education on their own, even though the expected return may be high. And, the economy-wide benefits of higher education suggest that a purely private financing market will lead to under-investment in education. There is therefore an important scope for the role of government in higher education (Luzer, 2012). Society benefits from these investments through such mechanisms as stimulating economic activity, higher tax revenues and overall improvements in quality of life. The scope of fiscal concessions, such as tax incentives for investment in education by the students, parents and other donors, should be made duly attractive. Specifically, the following tax incentives to students and parents may be considered:

(i) *Increase in Deduction under Sec 80E*: Currently, the only deduction of interest is allowed under Sect. 80E of the Income Tax Act. Deduction of principal loan repayment should also be allowed as a deduction under Sect. 80E as is currently permitted for home loan repayments u/s 80C of the Income Tax Act.

(ii) *Deduction under Sect. 80C*: Currently, the only deduction of tuition fees is allowed under Sect. 80C. Deduction of expenses other than tuition fees relating to education should also be allowed as a deduction under Sect. 80C.

Adopt Income Contingent Loan Policy

The social and private benefits of higher education support the case for a continued mix of private and public funding. A successful and effective partnership between public and private sectors would, however, depend on students' friendly income contingent loans policy, which is designed with two purposes in mind: for those students who wish to avoid up-front payments, they ensure that education can remain free during the period of study; entire amount of loans should be fully income contingent, rather than mortgage based (Ansari, 2017). Enhancing existing students' loans

arrangements allows them to do so from the higher earnings they gain throughout their working life by virtue of having been to HEI. Income contingent loan policy is considered superior to the existing students' loan scheme, which is regressive (Jayadev, 2017; Rani, 2017).

Opening a New Window for Augmenting Private Capital for Investment in HEIs

The current legal ban on 'for-profit' institutions has hardly prevented private institutions from extracting profits albeit through non-transparent and possibly illegal means. Since the quality of education suffers, can the profit making be legitimized with sufficient safeguards?

The task of improving performance and accountability of HEIs is a major challenge, which cannot be effectively faced without mobilizing and investing huge resources from diverse sources, including beneficiary students, philanthropists, donors as well as the investors seeking reasonable profits from such occupations as educational activities. The provision for a post-graduate level of teaching and research, in select disciplines, is regarded as an economic investment for private gains, which attracts profit seeking private investors. This is what has been observed in the cases of several HEIs under private management.

The demand for technical and professional education has been high and rising, which makes the educational activities profitable. At present, private investors are hamstrung by the complex web of regulations that restrict them from hiring competent staff and mobilizing funds through equity participation, which is the simplest way to raise money. In such circumstances, the 'not-for-profit' private institutions have turned into crony capitalist organizations that breed an unholy nexus between the institution proprietors, bureaucrats, and politicians. If profit making is allowed to incentivize investment in higher education, the demand for quality education and skills development could be met by aligning educational objectives and the fiscal incentives determined by the market forces.

A large number of private coaching and guidance institutions, which provide tutorial assistance and training for various competitive examinations, are run and managed 'for-profit'. Many of these institutions are registered as profit-making private institutions that are covered under the normal taxation laws. The success, utility and popularity of such institutions may be gauged from the fact that a significant majority of students join these institutions for remedial coaching to improve their learning attainments. And the beneficiary students are seemingly satisfied even though they pay much higher charges than the amount of fees paid to the regular institutions, where they pursue their degree/diploma programmes.

The contemporary educational scenario in its larger part is regarded as a lucrative business. The Supreme Court, as quoted above, also acknowledges this. The fact that education is a big business throughout the world, India has experienced the

mushrooming of private educational institutions, which are largely financed through students' fees. The education sector has therefore attracted a large amount of investments, from the entrepreneurs and industrialists. The unprecedented investment in the education sector, although termed as a philanthropic and charitable activity by the investors, needs careful scrutiny, because '*there is tacit acceptance of the prevailing system of charging capitation fees by private institutions',* for profit making (NPE, 2016).

Besides, the Parliamentary Committee of Rajya Sabha observed that the massive expansion of private higher education institutions is accompanied by the prevalence of unfair practices. Specifically, the Committee noted that:

(i) 'Many of the professional colleges, immediately after getting approval from regulatory bodies for university status, start admitting students 5 to 6 times their intake capacity, without a corresponding increase in faculty strength or academic infrastructure.
(ii) Many private institutions charge exorbitant fees.
(iii) Norms for fixation of fees being vague, and the quantum of fees charged has no rational basis.
(iv) Appointment of teachers is made at the lowest possible cost, who are asked to work in more than one institution, their salary being paid only for nine months, actual payment being much less than the amount signed for, impounding of their certificates and passports, compelling them to award pass marks in the internal exams. In such a scenario, nobody can deny the fact that there is an urgent need for having a Central law for curbing of all kinds of unfair practices prevalent in our higher educational institutions. Against this backdrop, the Committee has undertaken the examination of the proposed legislation from all conceivable angles. In this study, the committee has held interactions with all stakeholders including regulatory bodies, state governments, various associations/organizations representing higher educational institutions, students/individuals, etc.'

Furthermore, 'the Committee was given to understand that participation of private sector in higher education through Deemed to be Universities, State Private Universities, self-financed colleges, and self-financed courses has led to the prevalence of certain undesirable practices. UGC (Establishment of and Maintenance of Standards of Private Universities) Regulations, 2003 and UGC (Institution Deemed to be Universities) Regulations, 2010 have limitations and do not give powers to UGC to effectively deal with erring universities. Accordingly, a Central law for prompt and effective deterrent action was the need of the hour. It was informed that the most common violations being made, particularly by private institutions related to charging of high fees, non-refund of fees in case of withdrawal of admission by students, non-return of original certificates, awarding of unspecified degrees, starting unapproved study centres/off campus centres outside their jurisdiction'. The purpose of the forgoing discussion is to demonstrate the following:

First, the successive central government has not been able to fulfil its oft-repeated promise of allocating six per cent of national income for education development.

And, the share of higher education and research has been lower than one per cent of national income. The pressure of social demand for different types and levels of education has necessitated the opening of the education sector for the participation of the private sector, which may offer educational services on 'not-for-profit' basis and contribute to the process of human resource development.

Second, the private sector has indeed augmented huge opportunities for pursuing technical, professional and medical education. While there is a massive expansion of private higher education institutions, which are functioning as a family business and making huge profits, efforts to improve quality of teaching and research has been lacking. Rather, a large number of them are indulging in profiteering, which is forbidden by the Supreme Court. The service providers unduly exploit the provision of educational services as a charitable activity on 'not-for-profit' basis. Additional funds required for raising standards of teaching and research to match the levels obtained in the best performing institutions of the world are unfortunately not forthcoming. The regulatory bodies are unable to discourage corrupt practices and commercialization of education among the institutions under the private management.

Third, a separate window for channelizing funds into the education sector 'for-profit' may therefore be opened, to attract domestic and foreign investors, in select areas of studies having a significant bearing on entrepreneurship development and high earnings in modern industry and business organizations. The fact that private operators, whether 'for-profit' or 'not-for-profit' bases, manage their own funds, recover the costs of education and other user charges from beneficiary students and have authorization from the Supreme Court to generate reasonable surplus for further investment in education, there is no reason why 'for-profit' institutions should not be allowed? The regimes of direct taxes and regulatory framework should however be such that 'flight by night operators' should be discouraged; for this, there ought to be transparency in the management of institutions. And, the quality of programmes should be world class to ensure reasonable returns to the beneficiary students.

A major objective of the policy for encouraging 'on-profit' institutions should be to provide learning opportunities to over three lakhs Indian, who proceed abroad for higher education and in the process huge money, over ten billion US Dollars, are siphoned off to developed nations. In this context, a renowned educationist, Mittal (2017), Chancellor of Lovely Professional University has observed as under:

'If we really want to see more inflow of funds into education, we will have to not only deregulate the stringent policies but also allow "for-profit" entities into the sector. This would be the precursor for the following:

(i) Entry of foreign universities into India.
(ii) Eliminate "black money" and promote transparent and mature practices that shall allow the capital markets to enter education.
(iii) A "for-profit education" will not only clean the system but also add a significant tax revenue to the exchequer.

A policy decision in this regard is urgently called for, to facilitate additional investments into higher education sector and to create world-class institutions. A number

of countries, namely USA, Brazil and China have allowed the private investors to run universities and colleges 'for-profit', which has expedited the process of quantitative expansion and qualitative improvement in management of HEIs'.

Therefore, the 'not-for-profit' tag in higher education sector should be removed to ensure quality without losing focus on expansion and equity. Private institutions having established credibility could benefit with access to public funds in the form of loans, financial aid for students and competitive funding for research and innovation programmes.

It emerges, therefore, that the legal permission to establish 'for-profit' institutions for offer of degree/ diploma programmes would allow for greater flexibility for raising adequate funds and for quality assurance in higher education. And, an increased completion among different types of institutions/ programmes would enhance the much needed quality of relevant programmes. In effect, thus, the three major players and service providers, namely the central and state governments, 'not-for-profit' and 'for-profit' private institutions would simultaneously participate and compete with one another for providing high quality of relevant education at competitive fees and other charges.

Interface Between Industry

Institutions have significant potential to simultaneously address the issue of financial crunch faced by the institutions as well as quality assurance, with respect to various academic activities carried out by them.

There is plethora of literature on areas and forms of cooperation between HEIs and industry. In particular, the following categories of ongoing cooperation among the HEIs in India's are identified (Ansari & Sharma, 1991, p. 146).

(i) General research support is provided by the industry for promoting excellence in teaching and research. And, the support is extended in the forms of donations of laboratory equipment linked to sponsored research projects. Industrial endowments for establishment of Chairs have been another source of support for research programmes.

(ii) Cooperative research support strengthens research ties between industry and HEIs, which jointly conduct research in theoretical and applied areas. In this category, industry not only provides funding support for accomplishment of projects but also participates in curriculum design. Research fellowships are also provided, particularly in the subject areas, which do not attract many researchers.

(iii) Knowledge transfer is facilitated through exchange of personnel between institutions and industry, mainly in the form of visiting professorships, assignments at institutions in the areas of mutual interest, consultancy, seminars, participation in workshops and lectures by industrial scientists and other professional leaders, mainly in the short-term specialized courses.

(iv) Technology transfer programmes are designed to capitalize on university research or to integrate technological results of research into private sector programmes or commercial products. Such programmes are designed: (a) to address specific research problems in a company; (b) to provide technical assistance to companies in need of developing new products or new business; and (c) to help entrepreneurs start a new company in highly technical and professional areas. A few technical institutions offer extension services for improving the economic performance of smaller companies. This is done through the organization of 'technology parks' or exhibitions for popularizing the application of new technology in new methods of production.

The feedback obtained from both the institutions as well as the companies reveals that the interface between them has been at the low ebb for various reasons, which explain for both negligible financial support from industry and lack of relevance of academic activities of the institutions.

Implement National Admission Test Policy

In order to attract additional funds from a financial institution, including corporate endowment and scholarships, it may be necessary for the institutions to admit students for various courses on the basis of national admission test, such as, National Eligibility cum Entrance Test (NEET). A merit-based admission policy would not only contribute to quality enhancement but also go a long way in eliminating the scourge of corruption in the education sector, particularly the practice of accepting 'capitation fees' by the management of private institutions. The financial institutions would be keen to sanction loans to meritorious students who would easily secure jobs and repay the loans.

Expedite the Accreditation of Public and Private HEIS

The quality of teaching and research in a majority of institutions, public and private, is a matter of great concern, particularly from the viewpoint of seeking value for money. Accreditation agencies, namely the National Assessment and Accreditation Council and National Board Accreditation have been established as a measure of quality assurance in order to enhance standards of higher education. The process of accreditation is however very slow which requires to be expeditiously carried out for promoting academic and financial accountability of the institutions. It is observed that:

> *Of the 140 universities accredited by the National Assessment and Accreditation Council (NAAC), only 32 per cent are rated as A grade. Among the 2,780 colleges accredited by the NAAC, only 9 per cent are rated as A grade. Among the accredited institutions, 68 per cent of*

the universities and 91 per cent of the colleges are rated average or below average in terms of the quality parameters specified by the NAAC. There has been mushroom growth of private colleges and universities, many of them of indifferent quality. The higher education sub-sector is constrained by shortage of well-qualified faculty due to vacant faculty positions; poor infrastructure in many private as well as a significant proportion of public higher education institutions; slow progress in the renewal of higher education curriculum to align it more closely with the skills demanded in a diversified economy; and inadequate funding for research and development (Some Inputs for NPE, 2016).

It follows that unless accreditation of HEIs is expedited through a strong policy intervention of the government, flow of funds to the education sector from different sources cannot be improved. Neither the banks would be interested in entertaining applications for loans to institutions that are not accredited nor the national bodies would provide grants for research and development activities. Hence, the accreditation of institutions should be speeded up.

Conclusion

Efficiency and equity considerations make a strong case for the beneficiaries of higher education making a greater contribution. They would also allow government funding to be targeted more effectively to support potential entrants from lower income backgrounds where participation has been persistently low, despite free or low-cost education.

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Part III
Financing of Private Higher Education

Chapter 9
Private Higher Education Institutions and Entrepreneurial Universities

Moses Oketch

Abstract The financing of higher education today is broadly divided into two groups of countries. Countries in Western Europe maintain a near public monopoly in the provision of higher education (with certain key exceptions), and countries in North America, Eastern Europe, Central Asia, Latin America, and Africa maintain public and private sectors in higher education. The key difference between these two systems is that in the former category of countries, the efficiency is thought to be accomplished by instilling competition within the public system and in the latter category of countries, efficiency is thought to be accomplished by an open competition between public and private institutions. It is increasingly realised that there is room for reforms to improve efficiency of the system irrespective of the ownership and management of the institutions. The system of salary and other incentives need to be competitive; the system of accreditation needs to be separated from public authorities; and the system of curriculum and authority and the setting of standards need to be developed to meet the international standards. The private higher education institutions in many parts of the world focus on vocational specialisations and employment-oriented study programmes mostly in the areas of business and economics. In some cases, the private higher education institutions make efforts to attract students from religious groups which see their higher education experience as part of the religious and social upbringing.

Keywords Public good · Private good · Public subsidy · Enterprise university · Parallel programmes · Government behaviour

Introduction

Higher education today is divided into two groups of countries, each with its own characteristics, demands, and potentials. Western Europe, by and large, remains dominated by public provision of higher education (with certain key exceptions) in

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the financing of higher education programmes. In North America, Eastern Europe, Central Asia, Africa, and Latin America on the other hand, higher education has been diversified in both provision and in financing. The key difference in the two categories of systems is that in one, efficiency is thought to be accomplished by instilling competition within the public system; in the second, efficiency is thought to be accomplished by an open competition between the public and private institutions.

However, for the open system to work as expected, a significant number of systematic changes need to occur. The system of salary and other incentives need to be competitive; the system of accreditation needs to be separated from public authorities; and the system of curriculum and authority and the setting of standards need to be developed to the level of international standards. In many instances in the Eastern Europe and Central Asia region, for example, there is private higher education in name only, but in reality, the institutions remain constrained by public regulation and corruption (Caboni et al., 2003; Heyneman et al., 2007).

Not all private higher education has the same purpose. In many parts of the world, the purpose is focused on vocational specialisations, particularly in business and economics. In some parts of the world, the focus of private higher education is non-secular, with many of the institutions focusing attention and attracting students from religious backgrounds who see their higher education experience as being a part of their religious and social upbringing.

The focus of this paper is on trends in private and entrepreneurial higher education in Sub-Saharan Africa drawing on conceptual and theoretical considerations of the factors that determine the private sector in education as advanced in James (1987) and formulations of public versus private good as advanced by Samuelson (1954). The paper will also consider the relevance of the trend to equity aspect, particularly in contexts of high levels of economic inequality, low quality and exclusion in basic education, and governments that have shown little interest in nurturing strong and independent higher education institutions. The paper underscores the importance of human capital investment for any nation, whether poor or wealthy in supporting improvements in the well-being of citizens (Oketch, 2016).

Background

The private higher education sector is growing rapidly within Sub-Saharan Africa (SSA), especially in countries such as Kenya, Uganda, and Nigeria, and public universities are also privatising in what has become known as "enterprising university". This is occurring as higher education industry globally is under financial pressure and greater demand. These unprecedented changes have set in the "revolution" with profound impact on how higher education is funded and delivered and who attends universities in this region. While much has been written about privatisation of higher education in North America, Latin America, Asia, and Eastern Europe, only few studies have exclusively focused on this issue within Sub-Saharan Africa (see, e.g., Oketch, 2004; Varghese, 2004). Numerous studies on African universities focus on

historical development (Falola, 2001; Nwauwa, 1997; Zachernuk, 1999), others on more contemporary trends (Ajayi et al., 1996; Amutabi & Oketch, 2003; Eisemon, 1992; Johnstone & Marcucci, 2003; Oketch, 2003; Saint, 1992).

It cannot be overstressed that universities in Africa are complex social institutions just as they are in other regions of the world. First of all, they are beholden to external constraints, particularly the dictates of state politics and policies and sometimes complicated demand on them to produce "employable" graduates. Second, they face internal challenges—the cultures of the universities themselves, their goals and governance, management of resources and infrastructures, their capacities to pursue intellectual excellence and equity, political autonomy and public accountability, and local relevance and international recognition all at the same time. This complex nature of universities calls attention to advancing our understanding of private universities and the entrepreneurial university especially in context of Sub-Saharan Africa where participation rate is low at only about 7% of the cohort, in sharp contrast with places such as the UK where cohort participation is 60%. To attempt to achieve this, the rest of this paper draws on James (1987) framework on excess demand and differentiated demand and Samuelson's (1954) conceptions of public good versus private good and their consumptions.

James Estelle Argument and Its Application to Higher Education in SSA

James (1987) set out a conceptual model for determining the relative size of the private sector in education. She has applied this model to study education in the US, Japan, Holland, and India. In this paper, I extend this model to analyse the trends in the public–private partnership in education in low and lower-middle income countries, with a focus on Sub-Saharan Africa. In some instances, I will mention some of the issues that may pertain to India, especially given the important role that India's higher education has played in meeting excess demand in higher education from Africa's middle class, the role that India's higher education has played in historical stimulation of higher education in countries such as Kenya, and finally, some of the implications of the current trends on public–private partnership (PPP) in relation to innovations in the financing of higher education, drawing on the market and non-market benefits associated with the possession of college education.

To draw from James (1987), whether a country actively pursues and supports private sector higher education or maintains state provision and monopoly can no longer be considered a random choice especially in quasi-public good such as higher education. There was a time, especially in many low income countries in Sub-Saharan Africa, when higher education was purely a monopoly and an affair of the state. The trend has changed tremendously over the last two decades, with an established PPP provision now considered a feature and character of higher education in several of these countries.

James has argued that "the relative size of the private sector is determined by excess demand and differentiated demand for education, emerging from a collective choice process, and by the supply of religious entrepreneurship in the society and industry in question" (James, 1987, p. 1). The paper by James builds on the earlier work by Weisbrod (1975, 1977), which had viewed "private sector as a market response to a situation where large groups of people are dissatisfied with the amount or type of government production" (see James, 1987, p. 1). James developed this argument further in her 1987 paper, arguing that "two different patterns of private education have developed, depending on whether it is motivated by excess demand or differentiated demand" (James, 1987, p. 1). She argued that the former was likely the cause of the private sector in education in low income developing countries, whereas the latter could be applied to explain the trends in advanced industrialised countries. The paper notes that "in both cases, a supply-side variable, the availability of (religious) educational entrepreneurs, adds further power to our explanation of the differential growth of the private sector and also sheds light on why much private production in education is non-profit" (James, 1987, p. 1). In this paper, I extend these arguments by James to examine the evolution of the patterns of private sector in education and patterns of PPP in low and lower income countries and relate them to the prevailing trends in some of the cases as argued by James three decades ago. Are these assumptions relevant in higher education supported by the current evidence, and what permutations of these assumptions may have occurred in low income countries of SSA, and what accounts for those permutations? How do these affect our understanding of innovations in the financing of higher education? These are some of the key questions that I address in this paper.

To start with, it is important to clarify the definition of private as applied in this paper. As James noted, what is "private" is not always clear-cut in situations where funding and regulation involve the state. The implication is that funding and regulatory arrangements may yield "different public/private categories and many mixed rather than polar cases" (James, 1987, p. 2).

The second aspect, also developed earlier by James, is to model private sector education provision and in this paper higher education as emanating from or response to the decisions that a government makes about the amount and type of higher education. But some of the forces that influence government behaviour are external, in the case of higher education in Sub-Saharan Africa; for example, we know that structural adjustment policies of the 1980s into the 1990s had major influence, and so were the rate of return discourse which indicated that higher education mainly benefitted individuals privately (Psacharopoulos, 1994), and the World Bank's strategy papers on higher education in 1988 and 1990 were of enormous influence in the higher education trends in Sub-Saharan Africa (World Bank, 1988, 1999). An important element is that government higher education behaviour may also be influenced by what is naturally happening in the private sector. As James puts it, "causation may run both ways" (James, 1987, p. 2).

Democratisation may also introduce a collective choice mechanism, in which governments initiate social policies which are popular with the electorate. We have witnessed a lot of this in the developed countries such as UK, when social justice

frames some of the recent arguments around equity and access into higher education. In Sub-Saharan Africa, the social justice argument is not yet as strong; instead, meritocracy and the attachment of education to social mobility are thought to be the driving forces. The frustration with most youth is that few from poor background manage to enter into key universities, and when they complete, their aspirations are not fulfilled as they had thought. So, on the one hand, the door is open, and on the other, it is closed as a result of unemployment through "excess expansion" of the university system. I will come back to this point when I discuss the features of entrepreneurial universities with mention of a few countries in Sub-Saharan Africa.

What Are Some of the Determinants of the Emergence and Growth in Private Higher Education?

Higher education is not a purely public good. According to Samuelson's definition, a public good is one that is non-rivalrous and non-excludable. Higher education has elements of public good and elements which are also private. According to Samuelson (1954), consumption of "public good can be varied in total quantity" such that it is a condition of summation, whereas for a private good consumption by each person, respectively, is related to the total of that good by a condition of equity rather than that of summation. This is the main argument that is forming the crux for the arguments to look at social justice aspects in the quantity and the financing models of higher education at the moment.

Demand-Side Determinants

James sets out two key explanations to the determinants of the private sector in education that is relevant for this paper. The first is the demand-side explanation—what is also referred to by James as "excess demand". The simple assumption here is that the supply side does not meet the demand, and so, in the democratic collective system, "some people will have a "left-over" demand for public goods which they will attempt to satisfy privately" (James, 1987, p. 2). This is a pure public good argument that can apply to impure public good such as higher education because people can be excluded from higher education.

As James (1987, p. 2) points out, "goods which in fact, get parcelled out and from which people can be excluded" such as higher education are quasi-public goods. Higher education falls within this category. This is the argument developed earlier on by Weisbrod (1977). James says that "the basic idea is that people will vote to expand the public school system as long as their probable (external plus private) benefits from the expansion exceed their tax shares and cannot be purchased more cheaply in the private market; but if the capacity chosen by the majority is less than full enrolment, then some people with high benefits may be left out and will enter the

private sector". I apply this model to explain the trends in the emergence of private higher education and the rise of entrepreneurial university, especially in Kenya and other East African countries. For a start, this model explains the parallel programmes at the public universities in which full fees paying students are admitted along with government subsidised students as a means of raising revenue through teaching for the universities. It started in the mid-1990s and quickly became very popular in universities.

The parallel programme confounds what is public and what is private—graduates do not have their degrees marked as "parallel". So, students and their families buy this confounding and some element of prestige associated with having studied in a university where admission is determined by ability and not the size of one's pocket even if that is in addition to ability as is the case with private universities. In the end, the individuals benefit from this privately, and the universities also benefit because it gives them extra revenue. Is this an aspect of excess demand? I argue that it is both yes and no. "Yes" because supply is constrained and all parallel students must firstly meet the minimum entry into university as set by the government, even though their high school grades do not meet the cut-off grade to enable them to qualify for government subsidy. So, they are smart but not as smart as those subsidised, but since they attend the same university and taught by the same lecturers, and sometimes taught in the same class in courses such as medicine and engineering, there is no telling who is on the parallel programme and who is subsidised on the surface value. So, there is a clear element of excess demand here. On the other hand, "no" because the decision to introduce and develop the parallel programmes in the early to mid-1990s was not based on collective induced behaviour for the government.

Parallel programme is enterprise at the public university that was conceived as a response by public universities to the government demand, following international pressure from World Bank and International Monetary Fund (IMF) for structural reforms including introduction of "demand management" policies, and to let those who are demanding higher education seen as mainly the rich in context of high levels of poverty and unavailability of universal basic education to pay for it. In the end, parallel programmes have expanded university education, not for the poor masses, but for the middle class. Those who initially travelled to India and other places such as Europe and North America for university degree quickly jumped into the parallel programmes. Supply of students who want to join these programmes has never been an issue for the universities, and those who join demand specific courses. For over a decade, universities seized upon this "enterprise model" and quality started to be questioned by the employers who were witnessing graduates with the university degrees but who did not appear to have the competency levels associated with these hitherto "prestigious" state universities such as Makerere University in the Uganda or University of Nairobi in Kenya. Gradually, graduates of some of the private universities continued to perform better in the labour market and were even considered to outperform their counterparts from state universities in some areas of employment.

In Kenya, for instance, universities such as Strathmore which is a secular private university gained a reputation for its business degrees; United States International University (USUI) is another secular university in Kenya also gained reputation.

Newer private universities that are purely entrepreneurial private universities such as Mount Kenya University in Kenya and Kampala International University in Uganda emerged and expanded rapidly over the last decade or so. A few hitherto well-established accounting and business and computing middle-level professional colleges gained university charter and have been gaining reputation too. In this market, the traditional religious universities that dominated the private universities' field have not gained as much although they have continued to stay in the "game". Examples include the Catholic University in Kenya, Daystar University also in Kenya, and the East Africa Baraton University also in Kenya. These universities perhaps due to their religious ethos have not been willing to stick their neck out as much as the secular universities in what has become a "cut-throat" market competition. Still, they have their constituents and have remained focused on this group. This has meant, however, that their expansion is restrained, and their prominence is less visible. The question to ask is how can these changes be considered conceptually in relation to Samuelson's arguments on what is public and private consumption, and James arguments about excess demand and differentiated demand, and government behaviour?

What is now being witnessed is a reverse causation, whereby initially government behaviour influenced the private market for higher education, and now, it is the private market that has influenced the government behaviour in the following ways. First, concerns over quality have called to attention the need to strengthen higher education regulatory bodies to oversee quality assurance in all universities. The idea that public universities were established by the Act of Parliament and should be left to independently determine their quality is no longer the case. Initially, the body for monitoring quality at the universities was both weak and "ignored" by the public universities in places such as in Kenya and provided oversight only to private universities. Now, it (Commission for University Education) provides oversight to all the universities because the state universities have become "private enterprises", some responding in perverse ways to the excess demand incentive. The second way by which the market has influenced the government is that the universities can actually raise some revenue by charging some fees. Admission is, therefore, no longer tied to bed spaces. With a stroke of a government pen, universities have been created suddenly by elevating tertiary middle-level colleges, first into a university college status, and quickly shifting into fully fledged university status. While it used to take many years to plan and develop universities such as Makerere in Uganda, Nairobi in Kenya, and Ibadan in Nigeria, it has seemed much easier nowadays to establish these newer universities in Africa. The super-rich in society have responded, in some cases by simply shunning these newer universities even when their children meet the entry requirement and are offered admission and subsidy. Instead, they have elected to go to private entrepreneurial universities. This has raised the pool of academic talent for the private universities, and for some of these private universities, their prestige has also been raised.

Enterprise University

There is now an established view that university education is no different from enterprise entities because the work undertaken by universities through research, consultancy, teaching, and knowledge transfer facilitates social and economic advancements for individuals and society as a whole. Furthermore, enrolment growth has been unprecedented in Sub-Saharan Africa, from less than 200,000 in 1970 to over 4.8 million in 2008 (UIS, 2010). Today, this number is far more than 5 million, yet Africa is also home to an estimated about 1.1 billion inhabitants, and it is forecast by United Nations this will rise to 2.4 billion or one-third of the world population by 2050 (UNESCO, 2017). It is by age structure, the youngest continent of the world. So, the demand is extremely high for higher education that cannot be met under the current provision. To absorb this demand, some state universities have embarked on enterprise model of provision which is thought to have been detriment to research. The clearest model is what is known as "parallel" or "dual track" model of admission which I introduced earlier, whereby within the state universities, one cohort is admitted on the basis of bed capacity, and they are normally highly subsidised by the government. They are called "regular students". They pay less direct fees, and their university education is generally subsidised by their governments. The other cohort is called "parallel", and they pay the full economic cost of their education privately. It is similar to attending a private wing of a public university. These models were introduced in the early 1990s, and Makerere University in Uganda was one of the pioneers (Court, 1999) and today operates as a university where a majority of its students are these "customers" who pay the full cost and the others are the "students" who are subsidised by the government. It is hard to tell the distinction when one meets these students on campuses of universities, but a visit to the university campus is no longer simply to be confronted with students discussing academic ideology and politics confronting society. Today, campuses are buzzing with business activities by students who sell things and rental blocks which have mushroomed everywhere near campuses to accommodate these parallel cohort students. Also, courses that focus on "enterprise" are popular, and the idea of a university degree is no longer an "intellectual" undertaking as it were in the formative years of university in these countries, but to enhance "employability" skills and purely "intellectual satisfaction". Literally, it is a market place for qualification acquisition in some of these universities in Africa. Some of them have come under criticism for "commodifying" the degree, and some employers also question what quality of the education is offered. But universities are least bothered by these criticisms because there is a large pool of youth who are keen to acquire a degree and see it as their chance for a better life. It is frustrating for many as these qualifications have not translated into better formal career opportunities as straightforwardly as was expected, and some may have begun to question whether this idea of enterprise university has given way to qualification inflation for jobs that do not exist. In this regard, the quality is simply commensurate with the jobs that the graduates end up doing. For instance, if someone acquires a degree and continues to find informal employment as motorcycle taxi rider, quite common in

many cities in Africa today, it is hard to tell what skills enhancement the degree has added to their motorcycle taxi reading capabilities. It is these mismatches between what graduates do and the clamour for university degrees that is drawing some of negative attention to the concept of the enterprise university. In contrast to this is the enterprise model in North America universities in the 1970s and 1980s. Some of these established university research parks, leading to innovative research such as that of Mosaic developed at the National Centre for Supercomputing Applications (NCSA) at the University of Illinois Urbana-Champaign in 1992. Both Mozilla Firefox and Internet Explorer are thought to have their roots in this Mosaic development through enterprise at the University of Illinois. Another example is Research Triangle International (RTI) which was an offshoot of the enterprise model at the University of North Carolina. Even in recent developments in the UK, University of Cambridge has generated a lot of attention for innovative enterprise research of high-tech nature; universities such as University College London (UCL) now have consultancy arms such as UCL Consultants (UCLC). In Africa, enterprise model is a teaching one, and how this will be sustained and how it has affected the idea of a university are topics of major debate in some societies today.

As I have argued elsewhere (Oketch, 2016, p. 532), these universities such as Makerere in Uganda or Nairobi and Kenyatta in Kenya have transformed for better or worse, depending on how one looks at fees, such that they are now "enterprises" with claims of flexible resources and reduced reliance on the state for their survival. The question is often whether high quality learning can occur with such a large number of students. There is the perception that quality has been affected and that these "enterprise" resources instead of complementing government funding to university have in real terms increasingly displaced government funding. Teaching workloads have been increased leaving little room, if any, for research. Those teaching at universities have also increasingly valued this teaching, as their universities have, over research because faculty is paid extra money if they take on more of these parallel students/courses, in addition in most instances, to their workloads to those students who are subsidised by the government. It is form of "double dipping" that is leading to a context where quality research cannot thrive because there is a little incentive for doing research compared to teaching. Hence, while on the one hand, the enterprise model can be said to have influenced the behaviour of universities positively towards widening access, on the other hand, it has arguably dealt a blow to the true meaning of a research driven university. In such context, one might say that knowledge is regurgitated instead of being challenged, and teaching is starved of new research by faculty that can improve it. This scenario has meant that some of the private universities have had an advantage because they do not operate a two-cohort system. They are able to charge slightly higher fees but offer better teaching and learning context of smaller class sizes. Some of these have been rising in their "reputation" and are now becoming more established players into the field of higher education. While before the 1990s, one could say that the system was dominated by comprehensive state provision and peripheral private sector mainly of non-secular nature, today there are many secular full enterprise universities.

Challenges to the "Enterprise" University in Africa

In spite of the growth in what to some extent is the success and to some extent, arguably is diminishing what a university is, the idea of enterprise university is today well established in Sub-Saharan Africa. There is no running away from it; instead, the focus is now on how to improve upon it. Ogada (2000, p. 4) had identified some of the key issues that were barriers and require addressing in order for this enterprise model to thrive:

(a) Rigid regulations and discouraging regulations, (b) lack of clear operation guidelines, (c) absence of business plans, (d) lack of skill to formulate technical and financial proposals, (e) slow recruitment, (f) low levels of awareness about intellectual property rights and use of patent information services, (g) lack of intellectual property policy, (h) lack of data bank on university specialists, and (i) weak university-industry link.

Today, several of these concerns have possibly been addressed, even if not perfectly, because most of the main universities have been in the "enterprise" model for over 20 years now. They have learned the art of "enterprise" and the trade that makes this work. Obviously, they have also learned from their mistakes. They are simply more and better experienced. The newly established universities which were elevated from middle-level colleges have simply copied what their older counterparts have been doing for years, and some of these newer universities have found themselves over-stretched and into trouble. For instance, in Kenya recently, it was reported that one university was forced to close down these so-called enterprise campuses because they were found to be operating illegally and in conditions or buildings that were not worthy of the name of a "university". Some started to offer degree programmes far beyond their academic human resource capacity. A timeline in the evolution in the "enterprise" university here is that first, in the early 1990s, there was ambiguity and resistance to the idea of "enterprise" university in the state system. Then, gradually it became accepted and valued; now, there is pushback that these enterprise models are literally "destroying" the reputation of public universities in Africa. In some cases, lecturers may simply or nearly have forgotten how to conduct quality research because they concentrate all their efforts in teaching and they have no incentive not to do research. The danger is that when this is normalised, as it appears to have been in some cases, those who complete their PhD and pursue academic career are socialised to pursue incentives associated with the "enterprise university" which is at odds with active research engagement. Once they are recruited, they have followed suit to join the "enterprise" university model. It is not surprising that university teaching is becoming less attractive to highly talented individuals, and there is the danger that it will be the individuals that once described by Chinua Achebe as "competent but hardly the best" who will dominate the academic fraternity in Africa.

So, is the idea of "enterprise" university unwelcome? The answer is no. These enterprise models have introduced much life in universities such as Makerere which had simply "died" before the introduction of parallel programme in the early 1990s.

I have noted elsewhere (Oketch, 2016, p. 536) that "Generally, physical facilities are improving at some of these key universities in Africa mainly because the idea of centrally planned university which had led to their establishment in the 1970s has given way to a diversified enterprise model whereby universities are no longer tied to price control, quantity control and bureaucratic quality control". This is somewhat similar to the arguments that were advanced by Barr (2004) on the idea of the introduction of fees in UK universities. But I do not aim to draw comparison here because UK is a very wealthy country, whereas African countries face numerous underdevelopment challenges. The point to make is that when carefully thought out, and applied cautiously, private funding can revitalise African universities and enable universities to respond and accommodate excess demand, as some of them have done (Oketch, 2016).

Conclusion

To conclude, I want to return to the conceptual underpinning based on Samuelson's arguments about what is public good and what is private good. In the former, as Samuelson argued, the consumption by one individual in respect to the other is based on total quantity or, as he says it, is conditioned by the summation. In the latter, it is conditioned by equity. Here, higher education is an in-pure public good. There are benefits to the individual through earnings, but there are also benefits to the society through taxation and other non-market social benefits (McMahon & Oketch, 2013). How are these theoretical arguments to be applied to understand the trends in higher education in Sub-Saharan Africa? Firstly, the collective argument advanced by James requires rather democratic space. Higher education hardly features in the quasi-democratic elections that are held in Africa nowadays. Higher education is not a point of discussion in the vexed campaign arguments. It is, therefore, difficult to see how to apply these "neat" conceptual explanations in the case, for example, of Kenya's rapid enterprise and private universities. This applies to other East African countries such as Uganda and across in West Africa in countries such as Nigeria and Ghana where there is also a rise of private universities.

However, it can be said that there is now a clear element of "excess demand" being met through the enterprise university. There is also an element of differentiated demand catered for by the private universities. The latter are households who do not feel that the parallel programme meets their needs. So, the higher education in these contexts is highly transformed and seems to have elements of public–private mix, with consequences for quality. Eventually, it seems that efficiency is now being managed through competition between private and public, but it is complex to imagine that within the state system, the parallel model can compete with the regular programmes. This is a case where the university would compete against itself. This is an area that will be watched in years ahead in the region.

In relation to equity, it can be argued that the trend has worked to support a middle class that initially had no alternative for university education internally. Many simply

went overseas to countries in Europe and North America and a large number also came to India where higher education was relatively cheap. Today, fewer go overseas because they have variety of choices locally. The majority poor are nonetheless still largely excluded in these trends of privatisation and "entrepreneurial university", so the equity debate around higher education as public or private good will continue to be heard. On the one extreme end is the social justice argument, that higher education should be "free" but on the other extreme are calls for the "market" to continue. The case in Sub-Saharan Africa does not fit neatly into these calls. Clearly, either way, the poor are largely excluded because they do not have a chance for quality basic education to enable them gain access to the university education in the first instance. A public–private mix appears to be appropriate in this context and a win–win scenario for government and families, but only if the government can put in place measures to support effective basic education for all that would give the children of poor background an equal chance to qualify for the university education. At the same time, as I have noted elsewhere (Oketch, 2016) it would be pointless even under the market system to expand university education that the economy does not need or which produce graduates with competency levels that are not matched to a university level of education. This will simply be a dilution of human capital which will have long-term negative consequences both for the university and also the labour market in Sub-Saharan Africa.

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Chapter 10
Financing Private Universities and University Colleges in Tanzania: Towards an Innovative and Sustainable Approach

Johnson Muchunguzi Ishengoma

Abstract Private universities and colleges, with the exception of one institution, did not exist in the first three decades of independence of the Republic. In 1997, the Government of Tanzania amended the Education Act to permit private providers to operate. Following this reform, tuition-dependent, demand-absorbing and for-profit private universities were established in Tanzania. Many of the private universities were owned by religious denominations, they proliferated in the country, and their number surpassed the institutions in the public sector. The private universities account for 34% of the total enrollment in higher education in the country. They depend heavily on income from student fees and student loans provided by the government. This chapter explores the possibilities of innovative and sustainable means of funding private universities in Tanzania, especially when the government is reviewing student loan schemes.

Keywords Private universities · Sustainable approach · Demand-absorbing universities · Student loans · Tuition fee · Research and consultancy · Higher education bank

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Introduction and Background

Private higher education institutions did not exist in Tanzania until 1997. The only exception to this trend was the Roman Catholic Church's tertiary education institution which had existed since 1960s. In 1997, the government liberalized the provision of higher education to allow private providers by amending the Education Act with the Education Act No. 10 of 1995. The 1999 National Higher Education Policy also underscores the importance of encouraging private organizations, individuals and non-governmental organizations to take an effective role in establishing private universities and colleges. As a result of the liberalization of the provision of university education in Tanzania, tuition-dependent, demand-absorbing and for-profit private universities (mainly owned by large religious denominations) have been proliferating at an alarming rate.

As of September 2016, there were thirty-five private universities and university colleges (21 universities and 14 university colleges), compared to fourteen public universities (12 universities and 2 university colleges). Although the private institutions outnumber the public institutions, the private universities have generally less students as compared to public universities. Consequently, the private institutions account for less share of enrollment in higher education. For example, in 2013/14 academic year, total enrollment in private universities was only 34.1%.

One of the major challenges which imperils the survival of private universities in Tanzania is the overdependence on tuition fee and other related maintenance costs provided by the government through the Higher Education Students Loans Board (HESLB) and the Tanzania Education Authority. Although no empirical evidence is available, anecdotal evidence shows that a decision made by the Tanzania Parliament to issue loans to students enrolled in private universities was politically motivated and used as one of the campaign agendas for 2005 General Elections, but the practice is not sustainable in the long term. Practically, the Government of Tanzania is directly funding private universities and colleges and unfortunately private universities in Tanzania (because of guaranteed student loans) have not been able to diversify their precarious sources of income. The practice of government funding of private universities is currently under criticism and debate (by some members of Tanzania Parliament), and there are every indications that this practice will come to an end soon. If private universities are excluded as beneficiaries of HESLB loans, many private universities will be affected, and some might close down. Private universities in Tanzania (most of them profit-oriented) need to be creative (in terms of thinking about other alternative sources of income) and become competitive to attract fee-paying students. In a broader African context, private universities in Tanzania are not quite different from other private higher education institutions in Africa in terms of their sources of income. Varghese (2006) correctly argues:

> The private higher education institutions in Africa derive their income mainly from student fees. In most cases, this is the main source of income. This is more so in case of for-profit private higher education institutions where the fee rates are very high. Tuition fees forms the financial backbone of many private higher education institutions.

In the context of the above discussion, this paper seeks to propose innovative and sustainable approaches of funding private universities in Tanzania to ensure their financial sustainability and competitiveness.

Private Universities in Tanzania: Some Facts and Figures

Types and Ownership of Private Universities in Tanzania

With the exception of the Aga Khan University College (Tanzania Institute of Higher Education) and the Kampala International University, the majority of private universities and university colleges in Tanzania recognized by the Tanzania Commission for Universities are locally owned or affiliated to major religious denominations (Roman Catholic Church, Protestant Churches and Islam). Due to the nature of ownership, some private universities have religious objectives and philosophies clearly enshrined in their visions and mission statements. For example, a mission statement from one private university reads:

The University was founded to embrace the ideals of the Gospel message as it comes to the world through the Word of God through the Catholic Tradition and the Teaching Church.

Another vision from one private university states:

To be a higher education center of excellence with cutting edge programs, it is necessary to be responsive to the needs of the individual and to the nation in a globalized world under the guidance of Islamic moral values.

A simple categorization of private universities and university colleges reveals that most of them are demand-absorbing, government-supported and disguised for profit (commercial).[1] The number of private universities and university colleges is increasing at an alarming rate, apparently because they are guaranteed easy access to student loans. Easy access to student loans appears to be a major incentive for establishing many new private universities in Tanzania.

While the most commonly acknowledged major cause of private universities' growth globally is the surge in demand for higher education, in Tanzania the major cause of private universities' growth especially in the late 1990s, apart from the limited capacity of public universities to absorb all applicants, has been stiff competition among major religious denominations to establish private universities as one of

[1] The for-profit motive of many private universities in Tanzania is manifested by the high tuition fees they charge (some of them were charging fees in US$ until recently before the government ban of the practice). Also, all private universities have established degree programs which automatically qualify for student loans from the Higher Education Students Loans Board because they are categorized as priority programs for national development despite the fact that many private universities have inadequate qualified human resource to offer the programs. Some new private universities have been solely established to benefit from student loans.

the strategies to consolidate their spheres of influence among believers (Ishengoma, 2007) and as income-generating projects for the churches.

Table 10.1 shows ownership and affiliation of Tanzania private universities. More than 90% of the incomes of the universities in Table 10.1 are derived from student loans, and an insignificant amount of revenue is derived from several evening programs offered by these institutions to part-time students. The private universities rarely receive financial support from external donors. Thus, private universities in Tanzania practically depend on three major sources of income (1) student loans and grants from the Higher Education Students Loans Board and the Tanzania Education Authority (TEA) which accounts for more than 90% of their income, (2) evening programs focusing on business and related disciplines and (3) external donors.

Student Enrollment Trends and Academic Staff in Private Universities

Despite their large number, private universities in Tanzania enroll smaller share of students and that too mostly at the undergraduate level. The public universities admit a major share of the students in higher education in Tanzania, and they have a better educational infrastructure and human resources. The private universities in Tanzania (because of limited financial capital resulting from overdependence on one source of revenue) do not invest much in infrastructure development. Many operate from rented premises in both urban and semi-urban areas, a phenomenon which limits their capacity to expand student enrollment. In 2013–2014, private universities enrolled 74,802 students (34.1%) of the total 218,959 students. Table 10.2 shows trend in enrollments in both private and public universities.

In 2015, thirty-five private universities and university colleges employed a total of 2453 teaching staff mainly in the rank of assistant lecturer (academic staff without doctorates), compared to 4427 teaching staff employed by public universities. A majority of teaching staff in private universities are retired academic staff from public universities and part-time teaching staff, also from public universities. A good number of private universities also heavily depend on part-time academic staff as a cost reduction strategy to minimize operational costs and maximize profit. Table 10.3 shows academic staff by ranks in private and public universities in 2015. Dependence on retired academic staff and part-time teaching staff in private universities should be understood in the broader context of their inability to generate enough revenue to attract and recruit permanent staff, including chaired professors.

The majority of the teaching staff in private universities (about 71%) are junior in terms of academic ranks (tutorial assistants and assistant lecturers). What does this imply in terms of extra income generation for universities through applied research and consultancy and grants writing? It implies that these junior members of academic staff, because they are inexperienced, are unable to meaningfully engage in research and consultancy activities which could have hitherto generated extra income for the

Table 10.1 Ownership/Affiliation of Tanzania Private Universities, 2017

Name of university	Ownership/Affiliation
Aga Khan University	Aga Khan Foundation
Hubert Kairuki Memorial University	Family owned, but affiliated to the Evangelical Lutheran Church
International Medical and Technological University	Vignan Education Foundation of India
Tumaini University Makumira	Evangelical Lutheran Church
St. Augustine University of Tanzania	Roman Catholic Church/Tanzania Episcopal Conference
Zanzibar University	Darul Iman Charitable Association of Ontario, Canada
Mount Meru University	Baptist Church of Tanzania[2]
University of Arusha	Seventh Day Adventist
Teofilo Kisanji University	Moravian Church
Muslim University of Morogoro	Muslim Development Foundation
Mwenge Catholic University	Roman Catholic Church
St. John's University of Tanzania	Anglican Church of Tanzania
University of Bagamoyo	Tanzania Legal Education Trust (TANLET) and The Legal and Human Rights Center
Catholic University of Health and Allied Sciences[3]	Roman Catholic Church

(continued)

[2] The Mount Meru University was formerly known as the International Baptist Theological College of East and Southern Africa (IBTSEA) founded in 1962.

[3] Formerly known as Weill Bugando University College of Health Sciences affiliated to the Weill Medical College at Cornel University in USA which provided substantial financial and material support to enable Weill Bugando expand its academic programs.

Table 10.1 (continued)

Name of university	Ownership/Affiliation
St. Joseph University in Tanzania	Roman Catholic Church
United African University of Tanzania	Korea Church Mission
Ruaha Catholic University	Roman Catholic Church
Sebastian Kolowa Memorial University	Evangelical Lutheran Church of Tanzania (ELCT)
University of Iringa	ELCT
Abdulrahman Al-Sumait Memorial University (Sumait University)	Affiliated to the Khartoum-based International University of Africa, a member of the Federation of the Universities of the Islamic World
Eckernforde Tanga University	Privately owned by a businessman

Source TCU (2016a), Ishengoma (2010), Ishengoma (2007)

Table 10.2 Students enrollment trends in private and public universities in Tanzania, 2009–10 to 2013–14

Category	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014
Private	33,985	42,390	53,701	71,861	74,802
Public	89,449	92,977	112,573	129,125	144,157
Total	123,434	135,367	166,274	200,986	218,959
Percent private	27.5	31.3	32.2	35.7	34.1

Source TCU (2016b)

Table 10.3 Teaching staff by rank in private and public universities, 2015

Rank	L/WT	Instructors	Tutors	T/A	A/L	Lecturer	S/Lecturer	A/Prof	Prof
Private	21	34	72	438	1,218	366	138	56	74
Public	0	33	18	1,179	1,539	603	514	309	204
Total	21	67	90	1,617	2,757	969	652	385	278
Percent private	100	50	80	27.0	44.1	37.7	21.1	14.5	26.6

Source TCU (2015), Statistical data for teaching staff in higher education 2015
Notes L/WT = Laboratory/Workshop Technician; TA = Tutorial Assistant (first entry level to the university teaching profession); AL = Assistant Lecturer; S/Lecturer = Senior Lecturer; A/Prof = Assistant Professor; and Prof = Professor

universities to lessen their dependence on student loans. Tutorial assistants and assistant lecturers usually do not possess doctorates. A study by Mitchelsen and Hartwich (2004) revealed that academic staffs with doctorates were more productive academically through research and consultancy who apply their expertise and experience to seek additional (research) resources through research grants writing.

Financing Private Universities in Tanzania: Current Modalities and Their Challenges

The dominant modality of financing private universities is student loans administered by the Higher Education Students Loans Board (HESLB) since 2005. HESLB directly pays to the universities' accounts meant for tuition fees of every student admitted in a private university through the Tanzania Commission of Universities. Tuition fees (determined by private universities with the tacit approval of Tanzania Commission for Universities) constitute a major source of income for all private universities and university colleges. Table 10.4 shows the total amount of funds disbursed as tuition fees to private universities from 2011 to 12 financial year to 2015–16 financial year.

Dependence on tuition fees as a major source of income in private universities has made these institutions unnecessarily charge high tuition fees for their programs,

Table 10.4 Amount of tuition fees (in TZS billion) disbursed to private universities, 2011–12 to 2015–16

Universities	2011–12	2012–13	2013–14	2014–15	2015–16	Grand Total
Private	117,488,056,510	135,797,530,223	151,703,368,549	150,727,084,292	147,751,746,760	703,467,786,334
Public	165,542,289,437	164,787,112,118	164,748,249,800	187,040,321,332	248,494,478,552	931,612,451,238
Grand total	284,030,345,947	300,584,642,341	316,451,618,349	337,767,405,624	396,242,225,312	1,635,080,237,572
Percent private	41.3	45.1	48.0	44.6	37.2	43.0

Source HESLB (2017)

compared to what is charged in public universities for similar programs. For example, private universities charge between TZS 3,700,000 to about TZS 7,000,000 for the degree of Doctor of Medicine, while the two public universities offering the same program charge TZS 1,800,000. Anecdotal evidence shows that almost every year, many private universities submit requests to the Tanzania Commission for Universities to increase tuition fees to offset their escalating operational costs. As a strategy of ensuring that income from tuition fees is not interrupted, every private university in Tanzania has introduced degree programs in disciplines designated as of priority in the national development by the government, regardless of human resource capacity to offer these degree programs. Students enrolled in priority degree programs automatically receive loans for tuition fee and other expenses from the Higher Education Students Loans Board. National priority programs are in education (science) and education (mathematics), health sciences, civil and irrigation engineering, petroleum and gas engineering, engineering programs, agriculture and forestry sciences, animal sciences and production, science programs and land sciences.

There is no research or documentary evidence to show that private universities in Tanzania receive funding from external donors to support their recurrent and development expenditures, as is the case with public universities which receive substantial amount of funding for capital development and research expenditures from external donors. However, observations show that some private universities have collaborations and links with foreign universities and religious organizations (for universities owned by religious denominations). Some of these links have resulted into financial and material support to enable private universities expand their academic programs and train some of their academic staff at graduate level abroad—mainly through limited scholarships.

The major challenge of the current modality of funding private universities in Tanzania (student loans from HESLB) is that it is not sustainable because of the looming and inevitable policy changes on providing loans to students enrolled in private universities and university colleges that have been mentioned earlier. A section of the public and some key decision makers are strongly opposed to government funding of private universities because the practice grossly violates the principle of equity and social justice. The thinking is that the government has been spending substantial amount of tax-payers' funds to fund private universities instead of strengthening its own higher education institutions. Another reasoning for opposing government funding of private universities through student loans is that higher education yields more private returns than social returns; therefore, beneficiaries of higher education should bare its costs. This is the major principle of cost sharing in higher education policy embraced by Tanzania in the 1990s. In the context of the above discussion, the following innovative and sustainable strategies of funding private universities in Tanzania are suggested bearing in mind the fact that the current funding mechanism of private universities characterized by heavy reliance on student loans is highly unsustainable.

Toward Innovative Strategies of Funding Private Universities in Tanzania

Initiating Creative and Attractive Academic Programs

The majority of private universities (if not all) have copied (wholesale) or borrowed/bought[4] academic programs from old public universities, e.g., the University of Dar es Salaam. Very few have developed original programs of their own which can attract new students and help private universities generate income from Tanzania's dynamic private sector. Furthermore, currently private universities do not advertise their programs and compete to admit students. The Tanzania Commission for Universities (TCU) through its Central Admission System (CAS) allocates students according to their cut-off points to private universities, and students (almost automatically) are allocated loans by the HESLB. This admission system is also currently being opposed by a section of the public and legislators including the Ministry of Education, Science and Technology. Most likely, it will be abolished soon when the relevant parliamentary is passed through. The major argument for opposing the CAS is that it kills competition and creativity in private universities, which instead of advertising their academic programs and competing for best students (like other private universities in the world) and embark on vigorous fund rising to generate income, they wait for TCU to allocate them students and for HELSB to allocate them loans. Private universities in Tanzania can generate substantial amount of income and become self-financing if they create their own unique programs which are not offered by public universities and they address the human resource needs of the growing and vibrant private sector. Unfortunately, many private universities in Tanzania "tend to offer courses that require limited infrastructure development and are cheaper to operate" (Havergal, 2015) implying the for-profit nature of many private universities and university colleges.

Undertaking Research and Consultancy

Available documentary evidence shows that private universities in Tanzania can generate substantial income from research and consultancies if vigorously and systematically pursued. Prestigious private universities such as Harvard, Oxford, Cambridge and many others rise income from research proposals and providing consultancy services to industry, government and international organizations. Some well-established private universities (as well as public universities) generate income through patenting and innovation. Unfortunately, many private universities in Tanzania are simply "teaching" universities, and they lack experienced and senior

[4] There is an arrangement where a private university can pay fee to use an academic program from a public university.

academic staff with skills to write fundable project and research proposals by donors. Data in Table 10.3 shows that 68.1% of the academic staff in private universities are in junior ranks, without doctorate degrees. Furthermore, many private universities rely heavily on part-time lecturers, a phenomenon which undermines their research capacities. Evidence from research reveals that high academic qualifications are associated with high research productivity. Generally, research and consultancy are not the focus of many private universities although the two areas are potential source of income.

Establishment of a Joint Private Higher Education Bank

There are currently 25 private universities and university colleges in Tanzania. If each of these universities contributes at least TZS 2 billion (US$ 943.4 million) and in partnership with the private sector, they can establish a commercial bank to deal (mainly) with private higher education financing. Private commercial banks which started operating in Tanzania after the liberalization of economic and fiscal policies in the late 1980s are currently thriving in the country. There is no reason a private higher education bank if professionally managed should not function in a country where private universities outnumber the public ones, and the demand for higher education which cannot be met by public universities alone keeps surging.

Although the idea of private higher education bank may sound new in Tanzania or in East Africa in general, it has worked earlier in Nigeria in the early 1990s. The Nigerian Education Banks (EDUBANK)[5] was established through the Nigerian Education Bank Act No. 50 of 1993. The bank's resources included the following:

Bank deposits, educational bonds, educational fund endowment schemes, pension fund schemes and student saving schemes (Nigerian Education Bank Act of 1993).

The functions of the defunct EDUBANK were prescribed as follows:

(a) Approve and disburse funds for (higher) educational purposes; (b) provide loans to students to finance their education in institutions of higher education; (c) recover loans disbursed; (d) provide short-term loans to individuals (members of academic staff); (e) promote mobilization of savings and grants from the public and private sectors for (higher) educational purposes; and (f) accept deposits from individuals and institutions to finance educational investment.

Other functions included:

(a) Provide financial advice in educational matters to institutions of higher education, parents, students and educational investors; (b) promote development of viable research, consultancy services and relevant ventures within institutions of higher education, research institutes and centers; and (c) aid authors (in higher education

[5] The EDUBANK now defunct is being re-introduced through a bill seeking to make the Federal Government of Nigeria provide loans to enable students pursue tertiary education. The bill has passed through the second reading on the floor of the House of Representatives in June 2016. It is also important to note that the Nigerian Education Bank was established to replace the Nigerian Student Loans Board.

institutions) by providing them with loans for the purpose of financing the printing and publishing of educational books (Nigerian Education Bank Act; Part III).

From the functions of EDUBANK presented above, it is proposed that the private higher education can play a critical role in revamping and turning around the financing of private universities in Tanzania and also strengthen research and consultancy services which are currently weak in most Tanzania private universities. The proposed bank can be constituted also to serve public universities, students and members of the academic staff.

Internal Income Generation

Apart from a plethora of evening and week-end degree programs and establishment of satellite campuses and branches which largely benefits individual members of academic staff, there is no empirical evidence to show that private universities in Tanzania are intensively involved in internal income generation through investment of the profits they make from tuition fees to improve their resource inflows, apart from depositing part of tuition fees into private banks' fixed deposit accounts to generate little interest. Income generation through well-thought-out and planned investment activities can improve the finances of private universities and lessen their dependence on tuition fees. In other words, it is also proposed to diversify the income streams of private universities, because the current major income stream (tuition fees) is likely to dry up.

Endowment, Gifts and Donations

One of the traditional sources of income for American and European strong and prestigious private universities is endowment, gifts and donations to universities by proprietors, alumni and friends. Table 10.5 shows endowment in some selected (private) universities and colleges in US by 2016.

The universities listed in Table 10.5 have been acclaimed in both US and abroad for their quality higher education and research, largely emanating from strong sources of income and overall strength in resource mobilization. Although endowment in the US private universities is a part of institutional culture aided by long philanthropic tradition and conducive tax policies, there is no reason private universities in Tanzania should not introduce endowment philosophy and concept to their alumni, corporations (benefiting from the services of their graduates) and friends. The potentiality for introducing endowment is present judging from the way people voluntarily contribute millions of shillings to other causes such as weddings, political activities and funerals. But that endowment potentiality has to be tapped into by private universities through aggressive marketing strategies and strategic fund raising. Teferra (2015) argues that in Africa, "South Africa leads in endowment drives for building scholarly institutions

Table 10.5 Endowment in selected US (private) universities and colleges, 2015 and 2016 (US$ bill)

University	Endowment in US$
Harvard University	34.541 billion (2016)
Yale University	25.57 billion (2015)
Princeton University	22.2 billion (2016)
Stanford University	22.2 billion (2015)
Massachusetts Institute of Technology	13.18 billion (2016)
University of Michigan	9.7 billion (2016)
Columbia University	9.04 billion (2016)
Cornell University	5.7 (2016)
University of Southern California	4.6 billion (2016)
Texas A & M University	4.6 billion (2015)
University of California Berkeley	4.045 billion (2015)
New York University	3.44 billion (2016)
University of California Los Angeles	3.33 billion (2016)

Source National Association of College and University Business Officers (NACUBO) (2016)

and programs." Literature also cites success of stories of endowment drives in other three African universities (American University in Cairo, University of Nairobi and the University of Western Cape)[6] which indicates that endowments are a part of the solution to the financial woes facing both private and public universities in Tanzania. Gastrow (2015) emphasizes the importance of endowment in both public and private universities by arguing that "endowment enables universities to plan for the long term, to start new initiative, to invest in buildings and to strengthen the whole academic endeavor by providing up-to-date technology.[7]" For Tanzania private universities, endowment will also enable them to establish endowed chairs and professorships (which are currently lacking) to enhance the quality of institutions.

Credit/Unit-Based Tuition Fee Financing

This approach is premised on charging tuition fees on the basis of a credit or a unit instead of the whole degree program and is applied by some private universities in the US to enhance the affordability and accessibility to higher education by many students from poor families and rural areas. In this approach, "students earn credits towards their degrees at their own pace and phasing payments in small amounts to improve affordability of higher education for students who may not have enough

[6] See Mashiko (2015).

[7] See Gastrow, S. (2015). University endowments: Spend now or pay for the future? Retrieved 12/2/2017 from http://firstthing.dailymaverick.co.za/article?

cash or access to funds to pay full time tuition fees" (Perkinson, 2006, p. 15). This approach also enhances credit transfer and has been successful in Vietnam. Many private universities in Tanzania claim to be not-for-profit and for poor; therefore, the above approach is ideal although it may not appeal to many private universities which are essentially for-profit. For example, some of the private universities withhold graduates' degree certificates and transcripts until they have paid their tuition and other fees in full, a manifestation of the for-profit motive.

Conclusion

As a conclusion, in addition to the innovative approaches the recommendations for a framework for financing private universities in Tanzania using the market model of financing higher education may be summarized in Table 10.6 as follows:

Table 10.6 Framework for financing private universities in Tanzania for sustainability

Market segment	Financing mode
Private universities and colleges	Revenue diversification and privatization of services; contracted research and consultancy; sale of patents; enrollment of tuition fee-paying students versus loan-receiving students; aggressive marketing of programs; design of attractive programs
Students and their parents	Paying tuition and related fees, books and stationery
Government	Offering scholarships on merit basis to best students to pursue degree courses in approved private universities meeting stringent quality criteria for specific courses important for national development
Private sector/potential graduate employers	Direct donation to responsible institutions, student and professorial chairs sponsorships; sponsorship of contracted research
External donors	Direct grants to higher education institutions, faculty, departments, bureaus, etc., for various purposes, including research
Private Financial Institutions/Banks and Tanzania Association of Private Universities	Partnership in the creation of the proposed private higher education bank. Students and their parents can borrow money to pay for tuition and related costs at a market interest rate
Alumni and friends	Direct donations to institutions to establish endowment and trust funds

Source Ishengoma (2008)

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Chapter 11
Private Higher Education in India: Expansion, Costs, and Financing

Malathy Duraisamy

Abstract Indian higher education has witnessed a massive expansion over the past two decades. The phenomenal expansion of Indian higher education can be attributed to surge in demand for higher education as a result of increase in income levels of the population and augmented supply of private providers. The share of private-unaided institutions has steadily increased while the share of private aided and government colleges declined in this century. The enrolment in private-unaided institutions has increased during the same period and the enrolment in private aided and government colleges declined. This chapter analyses implications of the rapid growth of private sector for quality, disciplinary balance, disparity between regions and inequality among social groups. The chapter shows that growing participation of private sector has direct bearing on sharing of costs of higher education through cost recovery measures in public institutions and in unaided self-financing institutions. These measures which moved from state to the market reforms have increased financial burden of the households.

Keywords Expansion of higher education · Private-unaided institutions · Growth of private sector · Cost recovery measures · Private cost of higher education · Growth of private sector

Introduction

Higher education worldwide has been witnessing a rapid expansion with enrolment growing at a rapid pace. This massive expansion is also seen in the two most populous countries of the world namely India and China. The Indian higher education system is the second largest in the world with an enrolment of 28.6 million and China, with student enrolment of 34.1 million, occupies the top slot. US is in the third position with an enrolment of 20.0 million, whereas in UK, the enrolment is just 2.4 million. Notably, India and China recorded a three and fourfold increase in enrolment in

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higher education during the period 1999–2012, thus accounting for the largest rate of increase in enrolment in Asia (Sanyal, 2015).

Higher education in India is gradually moving from an elite to mass access. The spiralling enrolment is the outcome of economic and demographic factors, namely (i) increase in demand for higher education due to economic growth and a surge in income levels of the population leading to higher aspirations among the growing middle class; (ii) growing demand for workforce with knowledge and skills created especially through higher education due to integration with the global economy and labour mobility; (iii) the demographic bulge caused by growth of youth population in the age group of 18–24, and (iv) rising returns to higher and technical education in the labour market (Duraisamy, 2002). Importantly, the increase in demand for higher education has been met not by the public institutions but by the private universities and colleges, especially the newly established private self-financing institutions. This trend has been facilitated by the liberal policy of the government in granting approvals for establishing private self-financing institutions. This is because the government was unable to increase budgetary allocation to the extent required to cope with the rising demand for college education. Needless to say, the increase in private participation in higher education is not unique to India, rather it has been observed as a worldwide phenomenon (Sanyal, 2015).

While widening access to higher education is indeed a redeeming feature, it has transformed the structure of Indian higher education system from a dominant public and private-aided colleges and universities to a large and growing category of private-unaided institutions. Higher education being a costly pursuit, particularly professional and technical education which are catered by the private sector, it has led to a conflict of access with funding and equity, and this raises several issues: What is the impact of the entry of more private institutions on the cost and affordability of higher education? How do the private and publically funded institutions raise the required funds, that is, how do these institutions recover the cost of providing education? How does it affect the financing pattern of the state and the households? This chapter focuses on these issues.

This chapter is organised as follows. Section ‘Growth of Private Higher Education in India’ provides a brief account of the growth of Indian higher education focusing on the changes in the recent decades, that is, the increasing share of private sector in Indian higher education is brought out. Section ‘Private Cost of Higher Education’ explores the change in the private cost of higher education, and the relationship between costs and privatisation is also examined. Section ‘Cost Recovery and Financing of Higher Education’ discusses the cost recovery mechanism adopted by the public funded and private-unaided institutions in the light of the shrinking public funding for higher education. Section ‘Conclusion’ presents some concluding observations.

Growth of Private Higher Education in India

Participation of private sector in higher education in India prevailed even during the British Era when private providers took the lead in starting colleges and schools. These institutions were then established primarily to promote English education and train Indians for government jobs and to work as interpreters. There were 21 colleges, mostly run by private philanthropic and religious organisations, even before the first three universities were set up in 1857 in Calcutta, Bombay, and Madras. Subsequently, more colleges, mainly liberal arts and science, were founded by the British government to promote higher education in India. At the time of independence, there were 19 universities and 496 colleges with an enrolment of 237,546 students. After independence, both the Central and State governments introduced grants-in-aid system to fund the private colleges, and this enabled the governments to exercise greater control over the private institutions. These public-funded private on situations became private-aided colleges.

There was a steady growth of colleges and universities during the 1950s and 1960s but the growth momentum slowed down in the 1970s. There were 102 universities and 3277 colleges in 1970–71, respectively. The government and private-aided institutions were the main providers of higher education until 1980 and the private-unaided sector entered the scene in a big way after that. The number of universities and colleges increased to 132 and 4788 in 1980–81 and to 185 and 5748 in 1990–91 (Duraisamy, 2008). The country also witnessed a spectacular increase in professional and technical education institutions beginning mid-1990. With this, the number of universities and colleges increased to 254 and 10,152, respectively, in 2000–01 and thereafter to 864 universities and 40,026 colleges in 2016–17. The huge expansion led to excess capacity in certain disciplines such as engineering and technology, management among others, thus creating disciplinary and regional imbalances. One of the major causes for such distortions among disciplines is the absence of organised counselling and guidance and intelligent mentoring of the learners (Anandakrishnan, 2010).

The student enrolment was a meagre 0.25 million at the time of Independence. However, it has seen a rapid increase since 1950–51.The number of students enrolled in regular courses in universities and colleges (excluding polytechnics, other diploma awarding institutions, and non-formal system of higher education) increased from 2.9 million in 1980–81 to 4.9 million in 1990–91, to 8.3 million in 2000–0, to 18.7 million in 2010–11 (Duraisamy, 2015). As of 2016–17, 35.7 million students are enrolled of whom 31.6 million are enrolled in regular programmes and another 4.1 million students are under the distance education programmes which constitutes about 11.5% of the total enrolment in the academic year 2016–17. Girls constitute 46.8% of total enrolment thus lagging behind that of boy students (AISHE, 2017). This is in sharp contrast to many developed countries where the female enrolment in higher education surpasses that of males.

The Gross Enrolment Rate (GER) which was a meagre 1.5% in 1960–61 increased to 4.2% in 1970–71 and to 4.7% in 1980–81. A spurt in growth of student enrolment is observed since 1990s, which has raised the GER to 11.6% in 2005–06 and to 25.2% in 2016–17.

Data higher education institutions by type of management and enrolment in private institutions are not available for the years prior to 2000–01, and hence, it is hard to trace the growth of private sector higher education in India. However, the private institutions established prior to 1980 were mostly private-aided universities and colleges. Since then, due to the inability of the government to cope with the increasing demand for higher education, the public and private-aided colleges and universities started offering self-supporting courses and then this made way for the entry of private self-financing colleges and deemed-to-be universities to cater to the growing demand. The expansion of higher education has taken place mainly in the professional and technical disciplines such as medicine (allopathy, dentistry, pharmacy, nursing, etc.), engineering and technology, management, teacher education, etc., besides commerce, management, information technology, and computer-related degree programmes in the liberal arts and science colleges and universities. Although Indian law does not permit the setting up of 'for-profit' universities and educational institutions, the neo-liberal private institutions manage to generate an operational surplus which has been used partly to further expand their educational activities and partly for their own personal use.

The change in the structure of the universities from 2006–07 to 2016–17 is given in Table 11.1. As we notice, the number of universities and colleges more than doubled during this period. The growth in number of central universities and state private universities is remarkable. The growth of deemed-to-be universities has stagnated due to poor performance of these institutions and more stringent norms stipulated by UGC to prevent low-quality institutions emerging as deemed-to-be universities. It is noteworthy that with only 11 private state universities in 2006–07, more than 233 came into being by March 31, 2016. As of 2016–17, there are 864 higher education institutions which includes 45 central, 122 deemed-to-be public and private universities, 358 state public, 244 state private, 100 institutions of national importance, and 5 institutions under Special State Legislature Act and 40,026 colleges. The private-unaided institutions constitute about 43% of the total universities in India.

The trends in growth of colleges by type of management is shown in Fig. 11.1. It can be noticed that the growth of government and private-aided institutions exhibited a slow phase of growth while the private-unaided institutions experienced a high growth during the period 2000–01 and 2014–15. The number of government colleges increased from 4340 to 9095 while the private-aided colleges rose from 5503 to 5708 during the period. At the same time, the number of private-unaided colleges increased steeply from as low as 3229 in 2000–01 to 23,252 in 2014–15 which constitutes about two-thirds of the colleges in this country.

The trend in the student enrolment in colleges by type of management is given in Fig. 11.2. The growth in student enrolment also follows a pattern similar to that observed in the case of growth of institutions. Although enrolment has been on an uptrend in all the three types of institutions, the expansion in private-unaided

Table 11.1 Growth in number of higher education institutions by type, 2005–06 and 2015–16

S. No.	Type	2006–07	2016–17
1	Central universities	24	45*
2	State universities	232	358*
3	State private universities	11	244
4	Public and public-aided deemed-to-be universities	114	43
	Private deemed-to-be universities		79
5	Institutes of national importance	13	100
6	Institutions setup by State Legislature	5	5
	Total	399	864
7	Colleges	18,500	40,026

*Includes Open University
Source Agarwal (2009), Duraisamy and Duraisamy (2016) and AISHE (2017)
Note Number of institutions as on March 31, 2006 for 2005–06 and March 31, 2017 for 2016–17
*Includes Open University

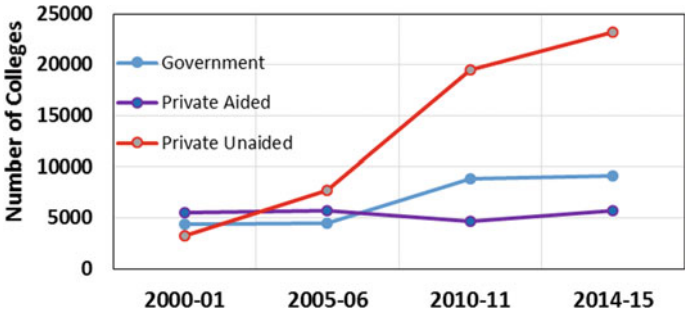

Fig. 11.1 Trends in the growth of colleges by type of management. *Source* Agarwal (2009) for 2001–01 and 2005–06; AISHE for 2010–11 and 2014–15

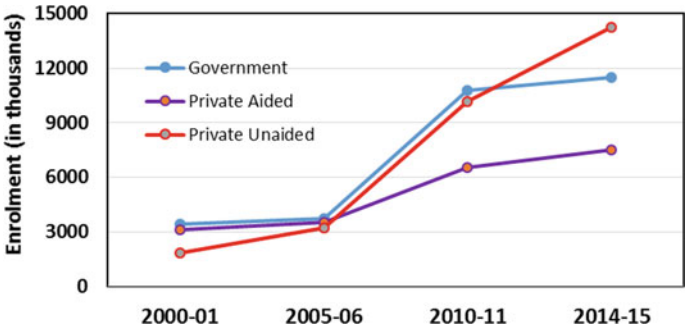

Fig. 11.2 Trends in student enrolment by type of management. *Source* Agarwal (2009) for 2001–01 and 2005–06; AISHE for 2010–11 and 2014–15

institutions far exceeds that in the government and private-aided institutions. That is, enrolment in private-unaided institutions increased from 1.8 million in 2000–01 to 14.2 million in 2014–15 while the enrolment in government colleges increased from 3.5 to 11.5 million, and in private-aided colleges, it recorded a rise from 3.1 to 7.5 million during the same period. The private-unaided sector accounted for 43% of the total enrolment in the year 2014–15 which does not include the enrolment in self-financing degree programmes of the government and private-aided colleges (See Duraisamy & Duraisamy, 2016 for a discussion on the share of private aided and unaided institutions and enrolment in them).

A related question is: What are the reasons for the growth of the private sector? The National Sample Survey (NSS) 71st round (2014) on participation in education provides some interesting information on this. The data show that 63% of the students in graduate and above courses enrolled in private institutions because of the following reasons related to access to and quality of government institutions: non-availability (21%), unable to get admission (32%), and poor quality (10%). About one-third (32%) of the students reported that the private institutions provide better environment. Thus, the inadequate supply of public institution seems to be the main factor which pushed students into private institutions.

The issues relating to privatisation and increased private sector entry into higher education have been widely discussed (Tilak, 2014; Varghese, 2012). No doubt that the entry of private provider has helped to increase the access to higher education, that is, it has enabled a larger section of society to undertake higher education. The private sector has also helped to increase the share of professional and technical personnel, which has enabled the country to strengthen its pre-eminence in the IT and IT-related services and also increased the mobility of scientific and technical manpower.

The growth of the private sector has escalated the problems relating to governance and regulation. The increase in access has been at the expense of quality and most of the private-unaided institutions lag behind the minimum requirement of infrastructure and faculty qualification. This has resulted in unemployable graduates. The growth of the private sector has widened the disparity among regions, disciplines, and socio-economic groups of the population. The governance of the higher education system has become more complex, and in turn, this has led to the failure of the regulatory authorities.

More importantly, the self-financing private institutions charge a high fee on the users and this imposes a huge burden on students, especially those from socially and economically disadvantaged sections of the community. Some of these issues are discussed below.

Private Cost of Higher Education

The expansion of higher education in India traced above points to significant developments in the higher education landscape, namely spiralling enrolment accompanied

by the phenomenon of privatisation. Privatisation has taken place in two ways (i) the rapid increase in the number of private institutions and enrolment in them and (ii) privatisation within the public institutions, that is, certain programmes offered on self-financing mode. This move can be seen as a positive way of responding to the growing demand but the flip side is that this comes at a cost, namely high fee imposed on the users. Thus, the impetus to privatisation needs to be carefully examined both in terms of its impact on private household cost as well as on the quality of education delivered.

Individuals and households do incur expenditure on education even when it is subsidised as in public and private-aided institutions. However, what privatisation has done is to shift a substantial burden of expenditure from the state to the households. This section is devoted to examining the trends in household spending on higher education, the components of expenditure and its variation by type of programme and institutions, and across states. A note of caution is that what we refer to as private household costs are only direct out-of-pocket expenditures incurred, and this does not take into account the opportunity cost (foregone earnings) which may be quite substantial in the case of higher education. Nevertheless, we use expenditure and cost synonymously.

First, we consider changes in the private unit cost of higher education from 1995 to 2014 for which data are taken from three 'participation in education' surveys of the NSSO, namely 52nd (1995–96), 64th (2007–08) in 2007, and 71st (2014) rounds.

Table 11.2 and Fig. 11.3 presents the trends in unit private cost of higher education measured by household out-of-pocket expenditure per-student per annum. The average private cost of higher education (includes all post-higher secondary education) has increased from Rs. 2923 in 1995–96 to Rs. 7369 in 2007–08 implying a twenty five-fold increase in cost. When we classify cost by type of education, we notice that the average cost of general education has increased 7.5 times over the two decades from Rs. 904 in 1996 to Rs. 6788 in 2014, which is indeed quite high. Data on technical/professional and vocational education are readily available only for the last two rounds of survey and these indicate that the cost of these two educational streams has almost doubled within a period of six years, that is, from 2007–08 to 2014.

Table 11.2 Trends in average private cost of higher education by general and technical education (in Rupees)

Year	Above higher secondary	General education	Technical/professional (excluding vocational)	Vocational education
1995–96	2923	904	–	–
2007–08	7360	2461	32,112	14,881
2014	–	6788	62,841	27,676

Note Indicates comparable data not available
Source National Sample Survey (NSS) data, various years

It would be interesting to look at various components of educational expenditure incurred by households. As can be seen from Figs. 11.4 and 11.5, tuition and other fees constitute about three-fourths of the total spending, and we observe that this dominant component has increased from 73% to 77% over the period 2008 to 2014. This can be taken as a clear indicator of the shift in costs from the government to the household and the cost sharing/recovery by institutions.

While the privatisation trend has expanded the reach of higher education to a larger section of the eligible population as evident from the enrolment trends, it is equally pertinent to investigate access from an equity perspective. We do this by analysing

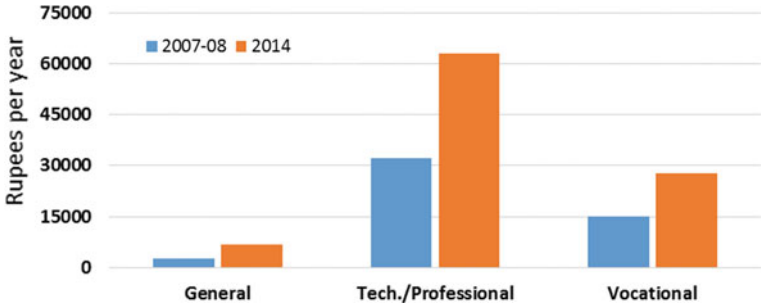

Fig. 11.3 Household per-student expenditure on higher education, 2007–08 and 2014. *Source* NSSO, 71st round (2014)

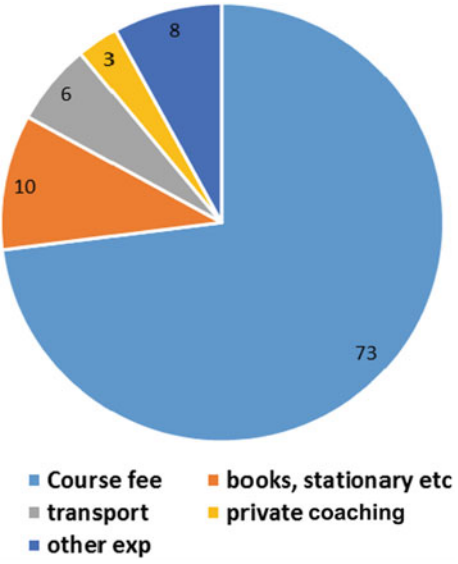

Fig. 11.4 Components of private expenditure on higher education, 2014. *Source* NSSO, 71st round (2014) and 64th round (2007)

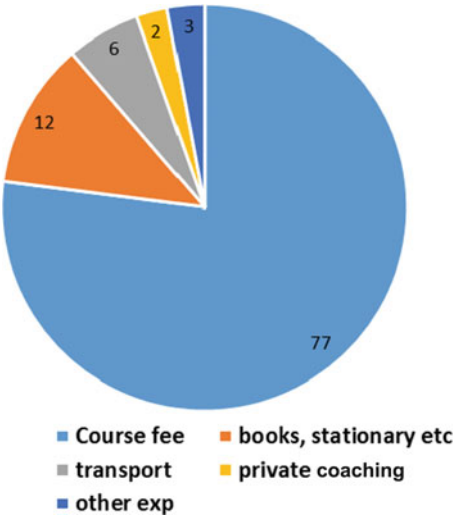

Fig. 11.5 Components of private expenditure on higher education, 2007–08. *Source* NSSO, 71st round (2014) and 64th round (2007)

the distribution of cost across household income percentiles. The variation in the cost of higher education by income levels measured by monthly per-capita consumption expenditure (MPCE) percentiles for rural and urban sectors are exhibited in Fig. 11.6. The following observations that: (i) the per-capita expenditure increases rather slowly up to the 90th percentile and sharply in the last percentile and a similar pattern is observed for both the rural and urban sectors; (ii) on average, rural households spend lower than urban households at every income percentile but the gap is very small almost up to the median and widens thereafter, and is particularly large beyond the 90th percentile. The figure shows absolute differences and in order to bring out the magnitude of the difference between the highest and lowest income groups within and between the two sectors, we use a relative measure by taking the ratio of household expenditure—P90/P10—for the two sectors. We find that the households in the top 10 percentile spend 2.8 and 4.1 times over those in the bottom 10 percentile in rural and urban sectors, respectively. This provides clear evidence of inequity in the distribution of burden of household expenditure on higher education. This needs to be further investigated as to whether the difference is due to a difference in the enrolment share of private and government institutions in these areas or differences in the type of course taken, etc.

Private Cost of Higher Education by Type of Management

The amount of spending by households can vary by the type of institution attended by their wards whether managed and funded by the government (wholly public), or aided by government but privately managed (partially private or private-aided), or privately managed and financed (wholly private or private-unaided). Table 11.3 reports the

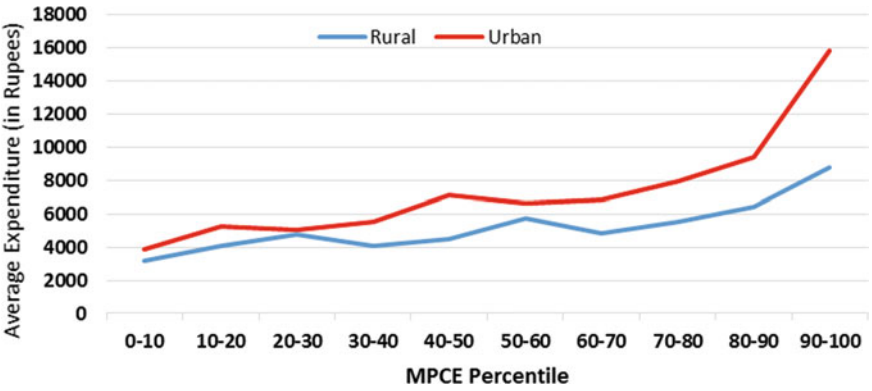

Fig. 11.6 Average expenditure by MPCE percentile, 2007–08. *Source* NSSO, 64th round (2007)

difference in the cost of education by type of management in rural and urban sectors. For deeper insights, we present finer classifications of household per-student cost by the level of education, type, and discipline.

It is well known that private institutions charge more than public institutions and the data shows no surprises. As expected, there is a sharp rise in household cost as we move from government to partially and to wholly private institutions,

Table 11.3 Average cost of higher education by sector, level, type of education, and management, 2014

Educational level, type, and discipline	Rural			Urban		
	Government	Private-aided	Private-unaided	Government	Private-aided	Private-unaided
General education						
Graduate	8753	11,730	17,093	11,560	16,993	26,380
Post graduate and above	11,403	14,224	25,372	13,580	20,978	29,661
Diploma	10,603	14,935	20,976	12,184	19,059	46,445
Technical and professional						
Medicine	57,292	76,383	91,391	72,636	99,468	148,510
Engineering	40,828	61,516	69,439	43,418	74,291	83,443
Management	39,511	60,548	69,473	46,050	62,778	121,150
IT/Computer courses	27,094	36,401	43,453	29,718	54,976	59,626
ITI and recognised vocational institutes	13,675	30,872	30,598	14,508	33,567	39,166

Source NSSO 71st round, 2014

and this cost difference is borne out by the data for both rural and urban areas (particularly steep in urban areas). Household cost also varies markedly by disciplines with professional education being costlier than general education and medicine turns out to be the costliest pursuit. The average household cost thus ranges from about Rs. 8,750 to 57,300 by type of disciplines in government, Rs. 11,700–76,400 in private aided and 17,000–91,000 in private-unaided institutions for rural households. The corresponding variations for urban households are: Rs. 11,500–72,600, 17,000–99,500, and 26,400–1,48,500 across general and professional streams in the three types of institutions. This is indeed not a meagre amount and this is for educating only one person (student) for one year in the household.

The data are not very helpful to answer related questions as to why private-aided institutions should exhibit 30–40% higher costs than public institutions, though close to 90% of costs are met from public funds. It is perhaps due to fee-charging programmes and modes of delivery (evening or Shift II Colleges) adopted by aided institutions to raise revenue for infrastructure and to provide better facilities which are not funded by the government.

Private Cost of Higher Education by Region and Type of Management

The private cost of higher education varies markedly across the states which is shown in Fig. 11.7 for medicine. The private cost of medical education is over double that of government institutions in many of states. The ratio of cost in private to government institutions is the highest in Himachal Pradesh (5.3), followed by Tripura (3.9) and Puducherry (3.6) and is over twice as much in another 6 states. However, the cost in private institution is lower than government colleges/universities in Punjab which needs further investigation.

Figure 11.8 depicts the private cost of engineering education in government and private institutions. The cost difference is largest in Chandigarh (5.7 times) followed by Haryana (3.9 times), Puducherry (3.6 times), and Meghalaya (3.2 times). In a majority of the states, engineering students attending private institutions spent more than double that of public institutions and at the all-India level, the ratio is 1.8. Manipur is the only state in which household cost for public engineering education is higher than the private engineering education.

How do households meet the high cost of higher education, especially when their children enrol in private institutions? Although we do not have reliable data to address this question, casual observation and common knowledge suggest that many households cope by borrowing, selling off land and other assets, etc. Student loan has recently emerged as a source of financing higher education but such loans from commercial banks cover only a small fraction of about 8.5 % of all students (Duraisamy & Duraisamy, 2016). Many countries such as New Zealand, England, US, Australia, Korea, and Thailand among others have introduced income contingent

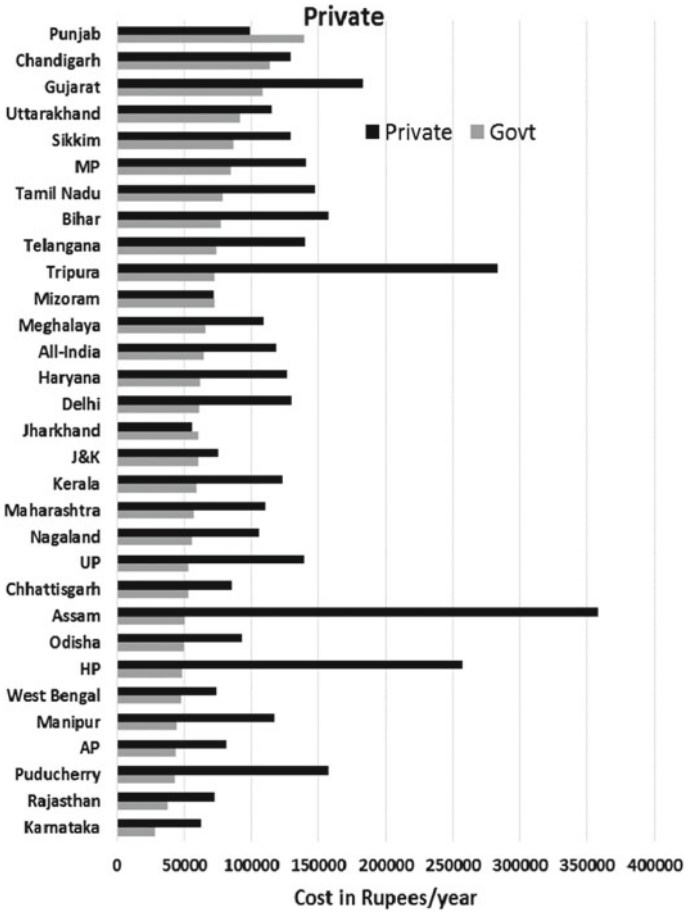

Fig. 11.7 Private cost of medicine: government versus private. *Source* NSSO 71st round, (2014)

student loans to mitigate the burden of increasing cost of higher education (Chapman et al, 2014). Educational loan as an alternative financing mechanism is still in its infancy, and we have a long way to traverse to expand its scope and coverage.

Cost Recovery and Financing of Higher Education

The issue of financing of higher education, state versus student/household, and alternative models of financing have been widely discussed (Chattopadhyay, 2016). In many European countries, the state is the sole or main provider of higher education, but this has been changing in the recent years. Many private universities had emerged even in countries such as France. In India, the State governments were the

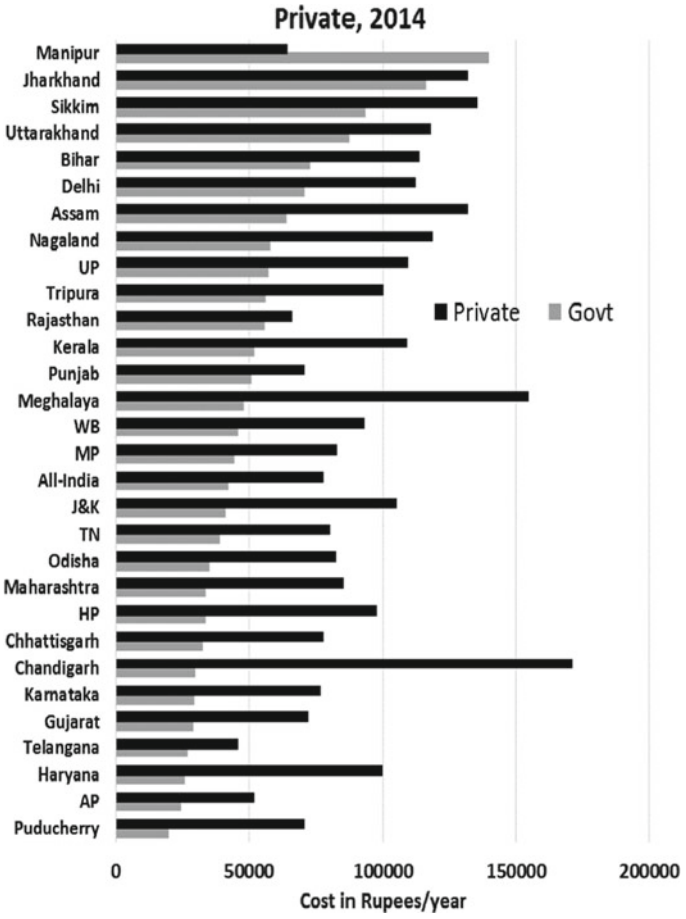

Fig. 11.8 Private cost of engineering: government versus private, 2014. *Source* NSSO 71st round, (2014)

main providers of higher education until the 1980s. The State governments unable to meet the surge in demand for higher education owing to financial constraints, reluctantly permitted self-supporting courses in public and private-aided institutions and subsequently approved the establishment of self-financing colleges. The UGC, with the approval of the government, permitted setting up of private (Deemed-to-be) Universities without any financial support and such universities proliferated during the 2000s. Due to the failure of these private deemed-to-be-universities to meet certain minimum level of quality and governance, the UGC tightened the norms for approving new institutions under this category which led to a decline in the number of universities established under this category in recent years. Recently, many State

governments have started approving State Private Universities through state legislatures. With the emergence of private universities and colleges, the burden of financing higher education in India has been shifted from the state to students and families.

A detailed analysis of the budgetary support to higher education will enlighten us on the financing pattern of Indian higher education. The public expenditure on education comes from both the Central and State governments. The major share of the funds is from the department of education of both the governments. However, the other ministries also spend on education by way of scholarships, establishing and operating hostels, and specialised universities/colleges relevant to their activities. The expenditures are incurred under both revenue account and capital accounts. In this study, we confine attention to annual revenue expenditure under plan and non-plan heads of higher education.

Figure 11.9 shows the trends in the revenue expenditure on higher education in current and constant prices and their ratio to GDP since 1980–81. Higher education expenditure has increased from Rs. 484 crores in 1980–81 to Rs. 47,460 crores in 2013–14 (budget estimate) which implies a growth rate of 15% per annum. However, the growth rate comes down to 7.6% if we account for inflation. A more or less similar pattern is observed for growth of expenditure from 1995–96 to 2013–14. The share of higher education expenditure to GDP (in constant terms), depicted in Fig. 11.9 also shows an increase from 0.31% in 1980–81 to 0.48% in 2013–14. The growth of public expenditure was slow till 2000, and it started to increase thereafter, the growth rate accelerated from 2006–07. In the eleventh plan, the thrust was on establishing new centrally funded institutions (Bhushan, 2013). The major share of higher education expenditure is from the State governments, and this has come down from about 80% to 65% of the total expenditure on higher education.

The evidence given above does not support the view that public expenditure on higher education which has been declining. In fact, the growth in public expenditure

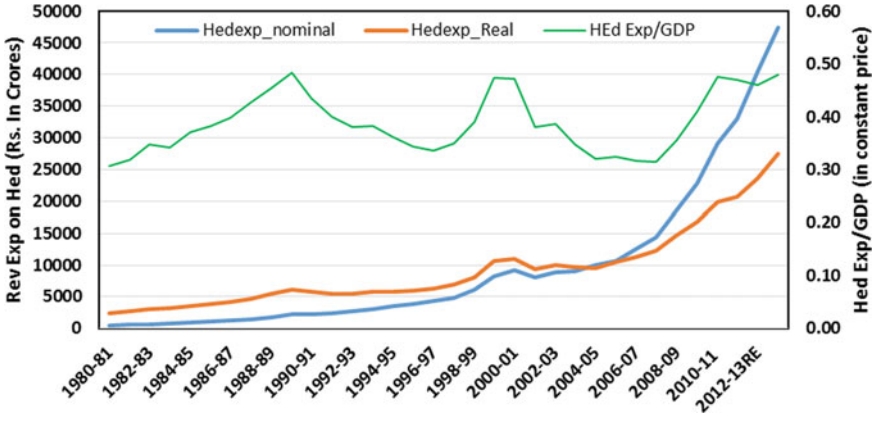

Fig. 11.9 Trends in higher education expenditure: nominal, real, and its share in GDP, 1980–81 to 2013–14. *Source* Analysis of budgeted expenditure on education 9 various years, Ministry of Human resource Development, New Delhi

has not been commensurate with the growth in enrolment. The government has been mainly funding the existing public and private-aided institutions. Most of the grants are just enough to meet the teachers' salary, and very meagre amount is allotted for maintenance of infrastructure and for consumables. In the interest of providing free education, the State governments do not give a free hand to institutions to charge tuition and other fees from students to generate additional resources to maintain the institutions. Under this circumstance, it would be interesting to examine the coping strategies adopted by the public-funded institutions to overcome the financial constraint.

Cost Recovery by Public and Private-Aided Institutions

The above discussion makes it amply evident that the public expenditure of both the Central and State governments on higher education has not kept pace with the rising student enrolments. Unable to meet the institutional expenditures, the state universities have been tapping alternative sources of revenue such as (i) offering self-financing programmes and (ii) conducting open and distance learning (ODL) programmes. The affiliating universities generate a surplus from affiliation fees paid by the colleges and research institutions, and examination fees collected from the students of the affiliated colleges. In a similar vein, the affiliated colleges, including government colleges, too run self-financing courses and a part of the maintenance expenditure is met out of the surplus from the self-financing programmes. Unfortunately, a vast majority of institutions are unable to tap other sources such as endowments and donations from alumni and the general public (Duraisamy & Duraisamy, 2016).

The private-unaided institutions recover the cost by way of student fees. The cost recovered is in excess of the actual expenditure incurred, including nominal returns on the initial investment made by way of land, building, furniture, books, equipment, etc. It is widely observed that the self-financing institutions manage to generate a surplus by paying low salaries to teachers which is just about 10–25% of UGC recommended pay scales. A large number of these institutions do not have the minimum required infrastructure as stipulated by the UGC and the affiliating universities.

Conclusion

The study has examined the expansion of private higher education in India and its implications for out-of-pocket expenditure of the households, public financing, and coping strategy adopted by the public and private-aided institutions to enhance their resources. There has been a steady increase in the number of higher education institutions as well as enrolment there-in since the mid-1990s. The private sector has

now become the dominant provider of technical and profession education. A majority of colleges, 78%, are privately managed of which 64% are private-unaided colleges. The share of private-unaided institutions has increased from 25% in 2000–01 to 64% in 2016–17 while the share of private-aided and government colleges declined from 42% to 14% and 33% to 22%, respectively. A similar trend is observed in the case of enrolment as well. The enrolment in private-unaided has increased from 22% in 2000–01 to 46% in 2016–17, and during the same period, the enrolment in private aided and government colleges declined from 37% and 41% to 21% and 33%, respectively.

The cost of education measured by household's out-of-pocket expenditure has increased both for general education by 7.5 times over the past two decade, whereas for technical education, it has doubled within six years which is quite high. The study also brings out the wide variation in the cost of higher education across disciplines, type of management, and across the Indian States. The cost of a private institution is over five-times in some states and in many states, it is twice of that in a public-funded institution. The evidence supports the hypothesis that the privatisation has led to an increase in the cost of higher education and thus the financial burden on the households.

The budgetary expenditure on higher education has been growing at the rate of 7.6% per annum (in constant terms). However, the increase in budget allocation is mainly used to defray the rising salaries of teachers in the existing institutions due to inflation and the pay rise granted by pay commissions once in 10 years. Due to the inability of the public-funded institutions to increase resources through fees, these institutions are unable to improve the infrastructure requirements and find resources for consumables. The coping strategies adopted by the public-funded universities are: (i) introduction of distance learning programmes, (ii) surplus generated through self-financing courses, and (iii) examination and affiliating fees. The public and private-aided colleges meet part of the maintenance expenditure through the surplus generated by running self-supporting programmes.

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Chapter 12
Public Financing of Private Education Though Fee Reimbursement Scheme (FRS): A Case Study of Engineering Education in Andhra Pradesh

B. Shiva Reddy and K. Anji Reddy

Abstract Traditionally, there existed three sectors of higher education based on their funding and management. They have been the government-funded institutions, grants-in-aid or private aided institutions and private unaided institutions. The public funding could not keep pace with the social demand for higher education and the unaided sector was expanding fast. The new change in the policy directions in some of the states is that the unaided sector is indirectly funded by the government through a scheme known as Fee Reimbursement Scheme (FRS) in Andhra Pradesh and Telengana. This chapter attempts to examine the issues associated with FRS, introduced in Andhra Pradesh in 2008–09. When compared to other types of higher education enrollment in engineering, education is highly influenced by FRS in Andhra Pradesh. The introduction of the FRS is associated with proliferation of engineering colleges which in the recent years are struggling to get students to fill up the vacant seats. The chapter argues that the proliferation of private engineering institutions was at the cost of quality. Many low-quality institutions continue to operate because of the assured funding through FRS. However, the governments of Andhra Pradesh and Telengana are having second thoughts to continue with the FRS.

Keywords Social demand for higher education · Fee reimbursement scheme · Engineering education · Quality of higher education institutions · Fee structure · Choice of courses

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Introduction

Education being a public good, state funding of education is a necessary condition for the growth and expansion of the sector. Financing of education by the government is common in many Countries, and India is no exception to this. However, over a period of time after the beginning of planned development in India, school education was prioritized for public funding. Within higher education, the public support was less for technical education than for general higher education. Technical higher education in states like Andhra Pradesh relied more on private institutions and private funding.

Public funding for higher education took three forms in Andhra Pradesh: First, government funded the institutions under its management. Second, government extended funding to private institutions under the grant in aid format (private aided institutions—a third form of public funding was introduced in Andhra Pradesh in the form of Fee Reimbursement Scheme (FRS)). This chapter focuses on this form—FRS—of funding of higher education.

The present chapter is an attempt to examine issues associated with the financing of engineering education in Andhra Pradesh through FRS.

The chapter is divided into four sections. Section 'Salient Features of FRS' examines the background, features, and coverage of FRS. In Sect. 'Admission and Fee Structure in Engineering Education', admission procedure and fee structure for engineering education are discussed. Section 'Implications of FRS' analyzes the implications of FRS for engineering education in Andhra Pradesh. The concluding observations are made in Sect. 'Conclusion'.

Salient Features of FRS

FRS was introduced by Government of Andhra Pradesh (GOAP) in 2008. According to the initial version of the FRS scheme, students belonging to backward classes pursuing technical and professional courses were provided financial assistance equal to the tuition fee. All the disadvantaged students enrolled in technical institutions during the academic year 2008 were eligible for the FRS.

This scheme was later extended to Economically Backward Communities (EBC) and Religious Minorities.

Originally, the FRS was confined only to technical and professional courses which include engineering, medicine, MBA, MCA, and B.Ed courses. But later, the scheme was extended to cover almost all the post-matric courses. Even the students studying intermediate education (+2 level), which is not part of higher education, were also covered under the scheme.

The term Fees Reimbursement implies that the student first pays the tuition fee to the management and later gets the reimbursement from the government. Contrary to this understanding under the FRS, the government gives an assurance to pay the fees to the management after the admission of candidates eligible for FRS. In a sense,

1. The FRS appears to be similar to the voucher system. The difference between the two was that under the voucher system the student has complete freedom to choose the institution. But under FRS, student has limited freedom and choice as the admission to the course and the college is based on merit and social background and decided by the admission authority (known as convener, admissions).
2. FRS aimed at influencing the demand for education, unlike others which are aimed at influencing the supply. However, though aimed at demand side, the supply side is also not completely immune to it.
3. Though FRS covers both public and private institutions, it is mainly aimed at providing access to corporate and private education.
4. FRS is classified as a welfare activity as it is funded and administered by welfare departments and not by the education department.
5. FRS is administered by various departments of the Government of Andhra Pradesh. Education department has no direct role in the implementation of it. The departments implementing it are the Department of Social Welfare for SCs, the Department of Minority Welfare for Minorities, the Department of Tribal Welfare for STs, and the Department of Backward Classes Welfare for BCs and EBs. These departments reimburse the tuition fees of the students belonging to the respective categories.
6. Only those students admitted under convener quota are eligible for FRS and those admitted under management quota are not eligible.[1]

Coverage of FRS: Although FRS initially covered engineering studies and students belonging to disadvantaged groups, the scheme was later extended to all the post-matric courses and all the eligible students with no ceiling on the number or the amount. Students in all the private colleges offering general, technical, and professional courses, besides public institutions, have become eligible for the FRS. Though the exact number of students benefited from the FRS is not known, it runs into lakhs of students. Once admitted and meets the conditions, the students are eligible to get benefits of FRS scheme.

With an increase in the number of students year after year, the amount required under FRS also increased. The government has to make provision for it in the budget. Therefore, the budget allocation to different welfare departments has increased. However, the budget allocations did not match with the requirements, and as a result, there was always a gap between the requirement of funds and the actual allocations.

In Andhra Pradesh, students from various social categories get financial assistance from the government known as post-matric scholarship, including FRS. The number of students getting post-matric scholarship increased significantly after the introduction of FRS (Table 12.1). The number jumped to almost two million in 2008–09 from 1.4 million in 2007–08. By 2012–13, the figure crossed 2.8 million. About 80% of the students in higher education were covered by the scheme. The amount spent under FRS varied from year to year. The exact amount allocated and spent for the scheme is only an approximation, as there is a delay in the release of funds.

[1] See Sect. 2.4 for the details quota system (Government orders).

Table 12.1 Number of beneficiaries and the amount under post-matric scholarship* in Andhra Pradesh

S. No.	Year	Amount (Rs. crores)	No of beneficiaries (in lakhs)
1	1997–1998	125.00	3.99
2	1998–1999	144.90	4.25
3	1999–2000	149.73	5.03
4	2000–2001	203.72	5.21
5	2001–2002	294.05	5.84
6	2002–2003	268.48	6.12
7	2003–2004	310.07	6.97
8	2004–2005	381.31	8.25
9	2005–2006	368.09	9.67
10	2006–2007	572.88	11.47
11	2007–2008	828.01	14.09
12	2008–2009	1615.86	19.94
13	2009–2010	2061.45	23.82
14	2010–2011	2931.54	25.74
15	2011–2012	3970.59	26.23
16	2012–2013	3748.91	28.18

*Post-Matric scholarships include both FRS and mess charges. The amount and beneficiaries

Source Ramana, 2014 (Table 25, p. 148)

When the scheme started, the scheme covered only first year students, and the amount needed during 2008–09 financial year was limited. The amount required increased in the subsequent years as the first year students entered second year along with the newly admitted students. One estimate suggests that amount required increased from Rs. 2000 crores to Rs. 5000 crores during 2008–2013 (Rao, 2012).

Although the FRS was implemented successfully, it started facing difficulties on various counts. First, the admission of students is done by the government agency based on merit secured by student in the entrance test and reservation policies However, the private managements started including the students admitted under management quota for the FRS.

Second, the procedure to get financial assistance under FRS has become cumbersome and kept on changing, mainly to minimize the number of eligible students and the amount. The conditions include income and age ceiling, minimum of 75% attendance, etc.

The division of the state into two states—Andhra Pradesh and Telangana state made the situation more difficult. The political party that introduced the FRS is not in power in both the states. The parties in power now do not want to continue the scheme in the same form due to the financial burden. At the same time, they cannot discontinue the scheme fearing political implications.

Admission and Fee Structure in Engineering Education

Prior to the introduction of economic reforms, the technical education was provided mainly by the government. There were very few colleges in the private sector. Due to its importance and heavy demand, the government permitted opening of engineering colleges under private sector in the 1980s. The government role was in the form of regulating admission and fixation of fee. During late 1980s, government introduced the quota system where the admissions are made under convener quota (90%) and management quota (10%). Initially, within the convener quota, the government has created 50% free seats and 50% payment seats. The fee charged for the free seat was nominal, whereas it was more than the cost under the latter (Table 12.2). Fee under the payment seat was more than five times the fees fixed under the free seat. Therefore, there was cross subsidization of those admitted under free quota by those admitted under payment quota. The fee fixed under management quota was, obviously, more than the fee charged for payment seat. Though the capitation fee was banned, it existed in different form(s), the extent depended on the demand for the course and the college.

Free quota system was removed in 2002–03 due to a controversy over subsidization of some at the cost of others. The removal followed by an increase in the management quota from 10 to 15%. The fee fixed under the convener quota was more than the fee charged under free seat and more than the fee for payment seat but was less than the average. For example, in 2002–03, the fee under free quota was Rs. 8000 and Rs. 43,000 for the payment seat. The average worked out to be Rs. 25,500. But, the common fee fixed was Rs. 22,000 only. This arrangement continued till 2005–06 (for 3 years only).

The managements were not satisfied either with the fees fixed or with the management quota as they do not generate sufficient income to maintain the academic standards and make profits. The government has accepted to increase the fee from Rs. 22,000 to Rs. 26,000 and management quota from 15 to 20%. Along with an increase in management quota, the fee fixed under this category also underwent upward revision gradually. The student admitted under management quota had to pay more than three times the fees fixed for convener quota. In 2002–03, the fee under management quota was Rs. 68,000 when compared to Rs. 43,000 under convener quota. There was an upward revision of fee for both categories.

The management demanded the further increase in management quota to 50% to generate sufficient income for financial viability to maintain the institutions. So, these quotas were changed from 80:20% to 70:30 in 2009–10. Thus, changes in the fee and the quotas had their implications for access, equity, and quality.

The Supreme Court objected to the differential fee structure and directed the government to follow uniform fee structure. The difference between fees under convener quota (Rs. 31,000) and management quota (Rs. 95,000) was very high. Therefore, from the academic year 2012–13, there is a common fee.

Table 12.2 Fee structure under convener and management quota for (Rs. per Annum)

Year	Seats quota's		Fee structure		
	Convener quota	Management quota	Convener quota free seat payment seat		Management seat fee
1999–00	90	10	5000	35,000	60,000
2000–01	90	10	8000	43,000	68,000
2001–02	90	10	8000	43,000	68,000
2002–03	90	10	8000	43,000	68,000
2003–04	85	15	The free seat category was abolished	22,000	68,000
2004–05	85	15		22,000	75,000
2005–06	85	15		22,000	75,000
2006–07	80	20		26,000	79,000
2007–08	80	20		27,500	79,000
2008–09	80	20		30,200	91,700
2009–10	70	30		30,200	91,700
2010–11	70	30		30,200	95,000
2011–12	70	30		31,000	95,000
2012–13	70	30		Common for both convener and management quota. The minimum and maximum fee fixed by **AFRC** is 35,000 and Rs. 120,000 depending on the cost incurred by the college	
2013–14	70	30			
2014–15	70	30			

Source Information compiled from various GOs issued in various years by Andhra Pradesh Government

After the introduction of common fee system and FRS, the management wanted a reduction in the management quota and increase the convener quota. But government has not taken any decision in this regard.

Implications of FRS

The introduction of the FRS is associated with many developments in engineering education. Some of them are explained in this section.

Access to Engineering Education

FRS has definitely increased the access to engineering education in Andhra Pradesh. To get admission into technical and professional courses, the candidates have to get

Table 12.3 Year-wise number of students appeared and qualified in EAMCET

S. No.	Year	Appeared	Qualified	Percent of students qualified
1	2002–03	191,124	160,958	84.22
2	2003–04	170,634	123,609	72.44
3	2004–05	162,195	136,691	84.28
4	2005–06	192,756	154,759	80.29
5	2006–07	234,419	177,999	75.93
6	2007–08	282,750	265,656	93.95
7	**2008–09**	**350,087**	**327,090**	**93.43**
8	2009–10	365,302	294,299	80.56
9	2010–11	367,269	304,715	82.97
10	2011–12	321,174	278,854	86.82
12	2013–14	376,976	282,086	74.82
13	2014–15	373,216	313,628	84.03
14	2015–16	375,635	298,882	79.57
15	2016–17	425,222	292,716	68.84

Source Annual Report 2013 & 2015 of APSCHE, Hyderabad
Bold significance the competition for admission in engineering courses

through the entrance tests conducted for different courses. The number of candidates appeared for the entrance test increased significantly after the introduction of FRS in 2008 (Table 12.3). It suggests that candidates aspiring to study engineering increased significantly. The increase is more significant after the introduction of FRS in 2008–09. But after 2011–12, the number of students appearing for the entrance tests declined. This is because the uncertainty about the continuity of FRS made many aspirants reluctant for opting for courses having high tuition fees. This included the engineering education.

The number of engineering colleges has increased significantly since the introduction of FRS in 2008 (Table 12.4). There were very few colleges and seats in the beginning. There were just nine engineering colleges with 1140 seats in 1976–77. At first, technical education was started in the public sector only and continued till 1977–78. For the first time in 1977–78, engineering education was permitted in private sector to a limited extent. By the year 2002–2003, the total number of colleges have gone up to 215 and number of seats available to children also gone up to 62,270. Now another problem has cropped in, i.e., opting of admission in rural engineering colleges by the children who are seeking admission in the engineering course. Even before the introduction of FRS, the growth of engineering education is significant. However, the number of engineering colleges has more than doubled since the introduction of FRS (339 in 2007–08 to 720 in 2013–14). With an increase in the number of colleges and additional sections in the existing colleges, the number of

Table 12.4 Number of engineering colleges and intake capacity in Andhra Pradesh

Year	Colleges	Seats
1	2	3
1996–97	37	10,455
1997–98	57	14,155
1998–99	89	19,773
1999–2000	102	25,064
2000–01	106	30,716
2001–02	178	46,540
2002–03	217	62,290
2003–04	225	65,710
2004–05	236	78,720
2005–06	261	92,600
2006–07	291	98,928
2007–08	339	125,587
2008–09	540	175,767
2009–10	657	225,905
2010–11	701	269,175
2011–12	710	306,309
2012–13	716	339,106
2013–14	718	340,099
2014–15	742	357,529

Source TSCHE (2015)

seats also increased significantly from 199 to 340 thousand during the same period. Thus, access to engineering education increased significantly (Table 12.4). For a few years, the intake capacity has increased by fifty thousand per year due to the introduction of FRS.

Gap Between Demand and Supply

In Andhra Pradesh, the expansion of technical and professional education expanded so much that in almost all the courses and institutions there are vacant seats (Table 12.5). The courses which were in great demand like MCA and MBA also lost their charm. In some courses, less than half seats were filled. Needless to say, students pursuing all these courses were eligible under FRS.

The expansion of engineering education has resulted in the growing number of vacant seats. Though the vacant seats existed even a decade back, the number has gone up significantly. Except in 2008–09 the number of vacant seats also increased significantly despite the existence of FRS, accounting for one-third of the total seats

Table 12.5 Number of colleges, intake, and enrollment in professional courses: 2011–12

S. No.	Course	No of colleges	Sanctioned intake	Enrollment	Percent
1	Engineering	710	306,309	178,827	58.4
2	ME/M.Tech	365	23,898	16,748	70.1
3	B. Pharm	283	27,740	22,495	81.1
4	MBA	958	93,231	57,488	61.7
5	MCA	625	44,530	13,965	31.4
6	M. Pharm	225	9207	7437	80.7
7	B.Ed	609	65,018	63,141	97.1
8	B. Arch	10	925	794	85.8
9	B. Ped	10	760	745	98.0
10	UG D. Ped	07	665	479	72.0
11	LLM	19	781	720	92.2
12	3 LLB	50	7150	4285	59.9
13	5LLB		2940	2500	85.0

Source APSCHE (2015)

in 2013–14. In the absence of FRS, the unfilled component would have been much more. The gap between demand and supply has reversed. Earlier the demand was more than the supply till 2000, but thereafter supply continued to exceed demand and the gap started increasing. The expectations of the management that FRS would boost the demand did not sustain for long. When compared to 35% in 2003–04, only five percentages of the colleges in 2014–15 could fill up all the seats in all the branches. If all those excluded colleges were included, the proportion would have been much less than five percent.

When compared to management quota, the percentage of seats filled is more in convener quota (Table 12.6).

It is expected as the FRS is applicable to those admitted under the former than the later. The percentage of seats filled increased in the year the FRS is introduced. But within two years, the seats filled started declining in both absolute and percentage terms.

For the viability of the college, the number of seats filled should be as maximum as possible. It may be noted that in 2011–12, the number of seats filled was less than 10. In more than 100 colleges, the number of seats filled was less than 50. About one-third of the colleges could get the minimum number of admissions (Table 12.7).

Over a period of time, the position of the colleges has worsened (Table 12.8). The vacant student seats have increased. For example, in 2003–04 at least in 35% of colleges, there was no vacancy. But by 2014–15, only five percent of the colleges got students as per the available seats. More than 100 seats were vacant in only 4.5% of colleges in 2003–04 but by 2014–15 in almost 30% of the colleges, the number of vacant seats was more than 100. In few colleges, not a single admission took place.

Table 12.6 Number of seats and seats filled under convener and management quota

Year	Total seats	Convener quota seats	Seats filled	Surplus seats under convener	Percent filled under convener	Percent seats filled in the total seats
1996–97	9608	8762	8762	0	100.00	91.19
1997–98	14,278	12,796	12,796	0	100.00	89.62
1998–99	20,943	18,742	16,868	1874	90.00	80.54
1999–2000	26,246	23,310	20,690	2620	88.76	78.83
2000–01	31,926	27,037	24,364	2673	90.11	76.31
2001–02	48,307	40,283	39,049	1234	96.94	80.84
2002–03	64,412	52,668	51,205	1463	97.22	79.50
2003–04	67,590	49,891	46,668	3223	93.54	69.05
2004–05	82,430	64,731	50,814	13,917	78.50	61.65
2005–06	97,450	70,792	56,866	14,432	80.33	58.35
2006–07	104,525	67,653	61,510	6649	90.92	58.85
2007–08	133,912	107,130	96,324	10,806	89.91	71.93
2008–09	192,247	144,186	129,362	6671	89.72	67.29
2009–10	229,560	160,693	148,720	11,973	92.55	64.78
2010–11	262,221	185,160	144,887	40,273	78.25	55.25
2011–12	292,616	206,207	129,897	76,310	62.99	44.39
2012–13	340,000	234,765	134,373	100,392	57.24	39.52
2013–14	340,099	237,000	126,084	110,916	53.2	
2014–15	269,862	188,900	156,794			
2015–16	243,387	171,371	132,127			
2016–17	208,971	155,066	110,064			

Source APCHE, TSCHE and Daily NEWS papers (Eenadu, 3–9–2014)

The vacancy position is not the same for all branches of engineering. When compared to 2003, the percentage of seats filled has gone down drastically. There was hardly any vacancy in courses like ECE, civil, and mechanical branches in 2003. At present, these branches are also facing vacancy problem (Table 12.9).

After the introduction of FRS, the number of seats in branches like CSE and ECE increased significantly as they are more in demand than others. The increase in seats is due to increase in the number of colleges and increase in the number of sections in the existing colleges.

Table 12.7 Size distribution of engineering colleges according to number of seats filled in Andhra Pradesh 2011–12

No of seats filled	No of colleges
0–5	18
6–10	12
11–15	8
16–20	13
21–25	14
26–30	17
31–35	15
36–40	14
41–45	13
46–50	11

Source Gosavi (2013)

Table 12.8 Size distribution of engineering colleges according to number of vacancies in Andhra Pradesh State in 2003–04 and 2014–15

S. No.	Vacancies	2003–04		2014–15*	
		No of colleges	Percent of colleges	No of colleges	Percent of colleges
1	00	78	35.0	10	4.9
2	1–5	38	17.0	12	5.8
3	6–10	12	5.4	11	5.3
4	11–20	13	5.8	9	4.4
5	21–30	11	4.9	8	3.9
6	31–40	15	6.7	9	4.4
7	41–50	15	6.7	7	3.4
8	51–60	7	3.1	7	3.4
9	61–70	6	2.7	8	3.9
10	71–80	9	4.0	8	3.9
11	81–90	9	4.0	9	4.4
12	91–100	4	1.8	45	21.8
13	101–150	6	2.7	27	13.1
14	301–350	–	–	21	10.2
15	501–550	–	–	13	6.3
16	701–800	–	–	2	1.0
		223	100.0	206	100.0

*First Phase of Counseling where the majority of the colleges were excluded
Source Eenadu 3–9–2014

Table 12.9 Course and year-wise total number of seats and seats filled in engineering education in Andhra Pradesh

Course	2003			2008	2012			2015
	Total seats	Seats filled	Percent filled		Total seats	Seats filled	Percent filled	Seats filled
CSE	11,186	9691	86.64	54,985	52,153	27,705	53.12	39,863
IT	7526	4417	58.69	29,330	17,338	6212	35.83	4342
ECE	11,359	11,342	99.85	62,570	61,135	38,912	63.65	38,926
EEE	8867	8720	98.34	37,755	34,797	18,433	52.97	18,539
Mech	4201	4160	99.02	18,285	31,879	22,541	70.71	22,904
Civil	1220	1217	99.75	–	22,613	15,184	67.15	19,360

Source Information compiled from various sources

Equity in Engineering Education

The introduction of FRS has increased the educational opportunities to various sections which had no access to higher education, particularly in reputed private institutions. The tuition fees charged by them are beyond the paying capacity of the poor. Now they could get access to it. In this respect, social and economic equity is ensured by FRS.

However, the accessibility to quality engineering education to poor socio-economic groups is also not guaranteed by FRS. The admission is based on the candidates' performance in the Entrance test, popularly known as EAMCET. If the candidate gets a good rank, he/she has a choice of choosing the course and the college. To get a good rank, a candidate has to spend a good amount of money as well as time to prepare for the test. For the poor students, it is beyond their paying capacity. A poor student with good rank may benefit from the present system, but this rarely happens. Most of the students studying in reputed private engineering colleges came from families where parents had better education and economic background. Wards of businessmen and professionals followed this as they can get seats under the management quota. Almost all students came from high-income background that is income of more than one lakh (DFID, 2001). Now the poor student with not so good rank are left with just two options, i.e., either to opt for low-quality engineering college or to borrow money to get admission under the management quota in high-quality engineering college.

It is the access to good coaching institutes that decides the rank and then the course and the college later. Needless to say, paying capacity is still the main criterion for admission into such institutes. Under these circumstances, the expansion of engineering education does not guarantee equity in the long run.

Regional distribution of engineering colleges suggests that they are highly concentrated in certain districts, and FRS has not helped in reducing the concentration.

Rather it has widened to a certain extent. The number of colleges increased in almost all the districts. But the increase is more in certain districts (Table 12.10). In absolute terms, the number of colleges is more in developed districts or districts close to the cities. For example, Rangareddy district has the highest number of colleges exceeding the entire Rayalaseema region. The capital of Andhra Pradesh is surrounded by this district. On the other hand in Adilabad district, the number of colleges declined because it is far away from the capital city and is a backward district.

It is clear from the above table that the engineering colleges are not equally distributed among all the districts. The highest number of colleges, i.e., 37 are opened in the Rangareddy district, which is very close to the state capital and consists of rural–urban areas where land is also available cheaply for the college requirement. In backward districts like Srikakulam and Adilabad, there are only three and four colleges, respectively. If we look at the distribution of engineering colleges among the popular regions known as coastal Andhra, Telangana, and Rayalaseema, the distribution is not equal. According to the Census 2001, the proportion of distribution of engineering colleges is supposed to be 41.7%, 40.5%, and 17.8% but the actual distribution is 33%, 55%, and 12% among the regions of Coastal Andhra, Telangana, and Rayalaseema, respectively. This may further cause the regional imbalance in the development of engineering education in the state and reversing the earlier development of general education.

Accessibility of engineering education to all the rural areas is another question. If we look at the government policy, there should be an engineering college in each revenue division. But there are many revenue divisions which does not yet have an engineering college. The reasons for not being opened any engineering college in these revenue divisions are backwardness and inaccessibility.

When the engineering colleges are opened in every district and all the rural areas, engineering education becomes more accessible to all the students. This appears to be impressive on the face of it. It may be noted that there is no reservation for the local (district level) students. The choice of the course and then college are the important considerations, and location of the college is hardly taken into consideration. Therefore, we can observe many students of other areas and not the local area study in any college. The distance is a matter of concern in school education, and it is hardly important in higher education, that too in engineering education. Local students hardly prefer the college located in the vicinity unless the quality is good and the course of their choice is available. FRS has in fact discouraged the local students opting for nearby college unless they ensure quality. When an industry is opened in backward areas, it is likely to be developed due to externalities in terms of providing employment opportunities and using local resources. But this may not be so when a college is opened in such areas. It may be mentioned that in some cases, both faculty and students commute every day from nearby city/town to attend the college located in backward areas. Majority of students and faculty from engineering colleges in Rangareddy district commute from the Hyderabad city, and it is causing traffic, pollution, and road safety problems in the city. Only for getting permission or some concession, the college is opened in such areas and not with the real intention of providing education to the local students.

Table 12.10 District-wise engineering colleges and seats in Andhra Pradesh: 2002–2003 and 2013–14

S. No.	District name	Number of colleges			Number of seats		
		2002–03	2013–14	Growth	2002–03	2013–14	Growth
1	Srikakulam	3	10	233	945	5040	433
2	Vizianagaram	5	16	220	1560	6480	315
3	Visakapatnam	10	32	220	3255	15,010	361
4	East Godavari	9	35	289	2380	15,890	568
5	West Godavari	9	32	256	2565	14,670	472
6	Krishna	9	38	322	2990	19,320	546
7	Guntur	9	49	444	3615	23,604	553
8	Prakasam	8	21	163	1865	9945	433
9	Nellore	9	27	200	2510	11,790	370
	Coastal Andhra	**71**	**260**	**266**	**21,685**	**121,449**	**460**
10	Ranga Reddy	37	155	319	10,130	84,913	738
11	Hyderabad	16	31	94	5250	13,675	160
12	Medak	9	27	200	2530	10,966	333
13	Mahaboobnagar	7	10	43	2280	2910	28
14	Nalgonda	14	44	214	3445	21,180	515
15	Nizamabad	7	11	57	1580	3690	134
16	Adilabad	4	2	-50	915	930	2
17	Karimnagar	8	19	138	1995	8370	320
18	Khamam	8	25	213	2325	11,520	395
19	Warangal	9	29	222	2695	14,790	449
	Telangana	119	353	197	33,145	172,994	422
20	Chittoor	9	39	333	2900	18,509	538
21	Cuddapah	5	25	400	1695	9749	475
22	Kurnool	5	21	320	1650	9360	467
23	Ananthapur	6	20	233	1195	7788	552
	Rayalaseema	**25**	**105**	**320**	**7440**	**45,406**	**510**
	Grand Total	**215**	**718**	**234**	**62,270**	**340,099**	**446**

Source Government of Andhra Pradesh (APSCHE, 2004 & 2015)
Bold significance the figures of Coastal Andhra is the sum total of all the districts listed on number 1 to 9 which comes under Coastal Andhra region

Quality of Engineering Education

In Andhra Pradesh, deterioration of quality in engineering education became fast and predictable after the introduction of FRS. Though the deterioration of quality

has started much before the FRS, it reached a stage where a majority of the products from these engineering colleges have remained unemployable.

The most important and genuine problem for many colleges is getting the well-qualified faculty. If many colleges are opened in a given year, it is very difficult to get engineering post- graduates or doctorates to work as faculty. As such, there are very few institutes offering Engineering education at P.G. and Ph.D. level. According to academic Audit Report, the total requirement of faculty for 31 colleges (started before 1996) is 3620 out of which only 1754 faculty members are available. The number of professors available is 341 against 451; associate professors 438 against 952; and assistant professors 1334 against 2217. About half of the faculty positions are vacant (GoAP, 2012).

The faculty strength of colleges started after 1996 is even more less. Moreover, the prospects of getting better jobs in the industry or service sector in India or abroad are more for them, and hence, preference for teaching jobs is less. Since many of them are located away from the towns/cities otherwise qualified, opt out of teaching jobs. Added to this, some colleges are not willing to pay the salaries suggested by the AICTE. Working conditions in some of the colleges are not satisfactory. Sometimes, control of the management over the staff also forces some of them to leave the college in the middle of the academic year. Therefore, conditions of security and job promotions are important in retaining and attracting the faculty. As far as the infrastructure is concerned, many colleges have their own buildings and laboratories but many lack proper maintenance and use, again, partly due to lack of manpower. All of these lead to deterioration in the quality of engineering education.

As per the conditions, each engineering branch faculty–student ratio is 1:15 for UG and 1:12 for PG. For each department, there should be one professor, four associate, and six assistant professors. Hardly any college satisfies these norms. Further, qualification wise also many colleges are engaging graduates, whereas post-graduation is required. In some colleges, the faculty exists only on record.

The committee consisting of experts from IIT and BITS inspected 163 engineering and pharmacy colleges in 2014. Of the 163 as many as 143 do not satisfy the conditions laid down by the AICTE (Eenadu, 1–2–2015).

FRS, instead of improving the quality, has added to its deterioration. First, the tuition fee fixed by the government is not sufficient to ensure quality unless all the seats are filled. As we have noted, very few colleges have such a situation. Second, even this fee is not reimbursed on time to the colleges by the government under FRS. There is an inordinate delay. Even last year dues are not paid. Needless to say, many colleges are depending on income from FRS.

Though the FRS has increased access to engineering education, majority of them have access to low-quality education, thus indirectly, contributed to inequality, in the long run. It is presumed that employment opportunities are brighter for engineering graduates than general graduates. It is true that unemployment is less among the former than among the latter presently when there are few engineering colleges. But once the outturn from the new colleges starts, the situation may be worse than today. It may be noted that many engineering graduates are working for meager wages. The prospects of a bright future of IT graduates have become bleak with the slump

in the global market. Further, the employment depends on the availability of other facilities for investment to establish factories and other establishments. The state has experienced the closure of many industrial units, including some from the public sector. The outturn from the colleges is several times the requirement, and hence, only those with better grades and communication are absorbed in the newly emerged ITC sector as the Infomation Technology and Communication (ITC) in the private sector is outside the purview of reservation policy.

It may be noted that there is no proper human resource development planning in the establishment of engineering colleges. The Vision 2020 has categorically stated the importance of technical education but failed to specify how many persons with different types of skills are needed to accomplish the goals specified. The employment opportunities of technical graduates are no better than general graduates. For example, in 2000, about 17,910 graduates in engineering, 2,47,140 graduates in polytechnics, and 1,07,533 graduates in industrial training are reported to be unemployed. The addition of colleges will increase the number of unemployed graduates. Therefore, the argument that technical education and not general education provide employment opportunities does not hold good unless supporting systems to employ them also develop, which require a different outlook and strategy.

FRS has led to unethical practices like recruiting agents by some management to get the students. The colleges with poor infrastructure and staff, mainly located in rural areas, have indulged in these practices. Besides, advertisement with tall claims, a typical feature of commercial activity, has taken an important form to increase the demand. They lured the students by offering various sops such as transport, hostel facility, and laptops.

FRS has created imbalances within higher education. The component of technical and professional has increased while the general higher education declined. FRS has indirectly encouraged many to opt for expensive courses like engineering. Further, within technical and professional education, the higher (UG and post-graduate) levels increased, while lower levels (polytechnic and ITIs) have not increased much. This is contrary to the requirement in the job market where more polytechnic and ITIs than engineering graduates are needed.

Conclusion

Whether the main purpose of the FRS is achieved or not can be viewed both from students and private and social angle. From the student angle, in the narrow sense, FRS has benefited those who could not have entered into the portals of technical education. Almost all categories of students SC, ST, BC, EBC, minority, and disabled got access to technical education and most of them are from poor families. Therefore, the FRS has helped to increase the access and equity. It may be noted that but for few, a majority of them got access to low-quality education, and these low-quality graduates are remaining unemployed or underemployed.

From the management angle, many seats are filled in almost all the private colleges under FRS. Otherwise, many colleges would have become defunct. They have also benefited from FRS by increasing the intake capacity and admission quotas. It was done by the management by following it with government in changing of admission quotas and fee structure and also inclusion of different categories of students under FRS.

From the social angle, the state could produce more number of engineering graduates from all categories (SC, ST, BC, EBC, and minority) who can contribute for the development of the state. But in the process, unemployment and under employment has increased.

Educationist late J.P. Naik remarked that there is an elusive triangle in Indian education system. The triangle he was mentioning is related to quantity, quality, and equity. Generally, quantity is supposed to ensure equity as did happen in the case of India to some extent but had an adverse effect on quality. In the case of technical education in Andhra Pradesh, both equity and quality are affected due to quantity.

FRS, though good, is a poorly designed and implemented intervention. Poorly designed interventions may reduce overall welfare if they result in wasted resources or education that does not best meet the needs of students, institutions, and the society.

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Part IV
External Financing and Student Support System in Higher Education

Chapter 13
External Financing of Higher Education: The Practice in Search of Theory

G. D. Sharma

Abstract India relied on public financing of higher education and, unlike many other countries, less of foreign aid for higher education development. External Financing takes several forms namely, foreign aid, foreign loan, foreign investment-direct or indirect. Very often the external funding can be government to government arrangement. The institutions of higher education can also obtain foreign funding. The fund flow can be through bilateral or multilateral arrangements. India has received funds from individual/foundation/firms and governments of countries, associations of groups of countries in monetary form or in physical and intellectual forms. It is difficult to quantify contributions made by other countries in non-monetary forms. The chapter discusses contribution in monetary forms received by India as aid, loan or foreign direct or indirect Investment. More importantly, the chapter discusses the implications of external funding on higher education developments in India.

Keywords Foreign aid · Foreign investment · External financing · Foreign loan · Foreign funding · Foreign direct investment · Higher education development

Introduction

The literature on the financing of education mostly deals with public financing. The debate has been focusing on the public good nature of higher education and the need for the state to bear the major responsibility to promote higher education. The UNESCO Conferences on Higher Education in 1998 and 2009 resolved that state should continue to provide finances for higher education to a great extent. This trend is changing and now a day's discussions on private financing and household financing of higher education are on the increase. It needs to be noted that the discussions on the public and private financing of higher education centers on the mobilization of internal resources for education. This paper attempts to analyze the nature and extent of external sources of funding of higher education.

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The Practice of Financing of Higher Education

The practice of financing education varies among countries. There are instances where the state has taken full responsibility to provide education at all levels to its citizens with minimum or no cost shifted to households and individual beneficiaries. There are countries which have followed a mixed model of financing where the state, as well as the individual beneficiaries of education, pay for education. Philanthropists and charities have also contributed to education at all the levels in mix mode system of financing of education. There are also countries which have examples of full cost recovery from students. In some instances countries rely heavily on direct external financing of institutions of higher education through aid/grants from outside the country. A new phenomenon noted in the recent past is external funding for promotion of higher education through Foreign Direct Investment (FDI). The FDI flows of higher education depends on the policy and capacity of the state to attract funds from other countries. With the advent of globalization and evolution of General Agreement on Trade in Services (GATS) framework, the idea of Foreign Direct Investment in services has gained importance among the countries engaged in trade in commodities and services.

External Finances—The Practice

External finances for education and higher education have taken three distinct forms. These are Grant, Financial aid through interest-free loans or long term loans for physical and infrastructural support to institutions and to the provision of scholarship to students and teachers to cover the full or partial cost to pursue higher education in the developed countries. India received international aid for food Security under PL 480 from the USA in the 1950s and the US preferred to use the amount as a grant for higher education purpose rather than returning the amount to the US. Likewise, UK, USSR, and Germany also provided financial and intellectual support for setting up some of the institutions of technology in India. Students and teachers were also given scholarships to pursue higher education in their countries. This model of external funding to promote education and scholarship has been in practices by many governments or philanthropic entity like foundations. Several countries provide funds for promotion of higher education and research through several schemes which are presently monitored by UGC and directly by foundations or by intergovernmental agencies. India too provided funds to other developing countries under the Colombo Plan for education and research by scholars from developing countries. Some of the foundations from abroad and India are also providing funds to scholars for higher education and research in other countries. All this funding is an investment in higher education, without any financial return to investing countries. It, of course, has a social return in the form of goodwill, a spread of their ideas and multi-cultural appreciation.

External Financing Through Students

The other form of external financing is full cost + fee charged from students coming from other countries. This is also a phenomenon observed during the last two decades, mainly after the concept of liberalization advanced under the new economic order and firmed up after signing of WTO agreement in 1995. This form of mobilizing funds for higher education exist more in developed countries than the developing countries. Leaders in this are USA, UK, and Australia, as a large number of students from developing countries go to these countries for higher studies. This form of external finance does not fall in the category of grants in/aid or investment for financial return. This is part of service cost provided to foreign students by countries of their studies. This falls into the category of one of the mode of trade in education services—the consumption abroad.

External Financing Through Institutions

Yet another form of external finance takes place in the form of tie up or franchise of foreign university in a country. This mode of external financing is seen in many developing countries. Under these arrangements, domestic institutions tie up with foreign universities to provide their degree program within the country. These arrangements are recognized in some countries, yet in other countries, they exist owing to the absence of a law on this matter. External finances take place in the form of signing fee and share of tuition fee paid by the students. This is akin to Commercial Presence though not in a strict sense of the term used by GATS. Here countries that have such arrangements give finances to countries which have set up such tie up or franchise. Such arrangements are prevailing in many developing as well as developed countries. Having introduced the concept of "Consumption Abroad" as well as "Commercial Presence" it is imperative to discuss the trade form of education services and return on investment in education services, i.e., FDI.

Trade in Education Services and External Financing of Education Sector

From the General Agreement on Tariff and Trade (GATT), the world moved to a new economic order in the form of World Trade Organization (WTO) (1995) to facilitate trade in goods and services. Trade in services took the form of trade under General Agreement in Trade in Services (GATS). Education also formed part of 19 services included in trade under the GATS framework. Under this regime signatories are to mutually agree for trade in education services to be undertaken under four modes of trade, namely:

(a) Cross Border Supply—the distance and e-education from one country to another country/countries; (b) Consumption Abroad- students going to other countries for studies; (c) Commercial Presence- setting up of educational institutions abroad; and (d) "Movement of natural persons".[1]

External Finances for education services takes place in all four forms of trade in education services. What is important here is to note that education is viewed as one of the services for trade and trade means a commercial form of education services as distinguished from education as social or merit good. Commercial presence mode of education services cannot take place without a policy to attract funds for education, i.e., to say FDI policy of signatory countries. This brings us to narrate the FDI policy of India under the new liberal economic order.

FDI Policy of India

FDI policy of India has passed through three stages before reaching the stage it stands today.[2] The first stage was allowing/attracting funds from other countries for promoting technological development and for selective purposes. This is because external finances along with having an advantage of getting funds for capital and development projects also intervene in the economic process and financial arrangements of the receiving country. If such funds are not cast in physical capital it has great chances of flight. If capital flies, it affects financial arrangements in the receiving economy. Hence, in the first phase, there were provisions for selective FDI and also in selective sectors of the economy to avoid ownership and flight of capital. The second phase was aimed to open more sectors of the economy for FDI as it also increased the FDI caps for these sectors. But the guiding principle was a selective and cautious play to avoid adverse effects of flight of capital and management of the sectors. The third phase after the WTO agreement and now framed in 2016, opens the economy in several sectors with an increase in cap and also removing possible bureaucratic hurdles. The disbanding of Foreign Investment Promotion Board in 2017 was followed by the opening of an automatic route for FDI in many sectors. It may be mentioned that there is no cap on FDI in the Education Sector. There is a provision of 100% FDI in education through automatic route. FDI under automatic route does not require any prior approval from either the Government or the Reserve Bank of India. The Investors are only required to notify the concerned regional office of RBI within 30 days of receipt of inward remittances and file the required documents with that office within 30 days of issuance of shares to the foreign investor. Thus, as far as the FDI in education/higher education is concerned, it has been made

[1] Fore discussion mode of trade see-Report on Trade in Education Service, Centre for WTO and WIPO Studies, Society for Education and Economic Development, 2005 available on www.seeded u.org.

[2] A brief discussion of the stage of FDI Policy is available in- Foreign Direct Investment—Creative or Disruptive External Economic Intervention-SEED, 2014.

very easy and smooth. It may be relevant to examine how much FDI has come to India and what is the share of education.

FDI in India

With the progressive opening of economy and steps to attract Foreign Direct Investment, India has received FDI to the tune of US$ 55,4457 Million in the year 2015–16. Over the years from 2000 to 2015 FDI inflows have yearly ranged from US$ 4209 million to the US $ 45,148 million. The total FDI inflow over this period works out as US$ 424158 Million. Year wise details are given in Table 13.1.

Tables 13.1, 13.2, 13.3 and 13.4 indicate that the FDI inflow in India is of fluctuating nature. That most of the FDI during 2015–16 has come from Singapore and Mauritius. They account for almost 40% of the FDI. Among the sectors, Services and IT accounted for a major proportion of FDI inflow and among the states, Delhi NCR and Maharashtra accounted for a major share of FDI inflows.

Table 13.1 FDI Inflow from 2000 to 2016

Year	FDI US$ Million
2000–01	4029
2001–02	6130
2002–03	5035
2003–04	4322
2004–05	6051
2005–06	8961
2006–07	22,826
2007–08	34,843
2008–09	41,873
2009–10	37,745
2010–11	34,847
2011–12	46,556
2012–13	34,289
2013–14	36,046
2014–15	45,148
2015–16	55,457
Total amount	424,158

Source India FDI Data, ITP Division, Ministry of External Affairs, 2017

Table 13.2 The top 5 countries which contributed FDI Inflows during the Year 2015–16

Countries	US $ Billion	Percent
Singapore	13.69	24.68
Mauritius	8.35	15.05
USA	4.19	7.55
Netherlands	2.64	4.76
Japan	2.61	4.70

Source India FDI Data, ITP Division, Ministry of External Affairs, 2017

Table 13.3 The top five sectors which received FDI in the Year 2015–16

Sectors	US $ Billion	Percent
Services	6.88	12.40
IT	5.90	10.63
Construction	4.51	8.13
Trading	3.84	6.92
Auto	2.52	4.54

Source India FDI Data, ITP Division, Ministry of External Affairs, 2017

Table 13.4 Top 5 state receiving larger FDI

Name of the states	US $ Billion	Percent
NCR (Delhi, UP & Haryana)	12.74	22.97
Maharashtra	9.51	16.49
Tamil Nadu	4.52	8.15
Karnataka	4.12	7.42
Gujarat	2.24	4.03

Source India FDI Data, ITP Division, Ministry of External Affairs, 2017

Services Sector

The services sector account for the largest FDI inflows in 2015–16 as well as in previous years also. The services sector includes Financial, Banking, Non-Financial/Business Outsourcing, R&D, Courier, Tech. Testing and Analysis. Education is also part of services but it has not received much FDI in spite of the fact that it has no cap and it is also through automatic route.

FDI in Education

According to data released by Department of Industrial Policy and Promotion (DIPP), the total amount of Foreign Direct Investments (FDI) inflow into the education sector in India stood at US$ 1256 million from April 2000 to March 2016.

Reasons for Poor FDI Inflows

It is a matter of concern why in spite of very easy FDI policy, the education sector has not received much FDI. There are several reasons for the poor external financing of education and particularly higher education through FDI. The external finance under FDI system necessarily envisages return on investment which means an investment for profit. In India education, under the law of land is not for profit. Besides, there is a system of setting up of Universities and institutions of higher education through the Act of parliament, the Act of State Legislature or through Section 3 of University Grants Commission as per the Act, 1956. All these entities have to be not for profit and have to follow rules and regulations of the respective authorities. A lot of discussions has taken place at the government level about how to promote FDI inflow in the education sector under the Special Purpose Vehicle.

Recently while further liberalizing FDI policy, FDI in Construction industry was made easy by permitting 100% FDI. This also includes construction for education purposes. Thereby, it made possible for the education sector to acquire FDI for construction under Public Private Partnership mode.

FDI Inflow in New Areas in the Education Sector—Training and Skill Development

In the recent past FDI in education has come mainly in training and skill development activities. Some of the areas where FDI has been received are reported as follows (Business Report, 2017):

(a) The Government of India aims to increase digital literacy to at least 50% of Indians from currently 15% over a period of next three years.
(b) Training and skills development firm NIIT has partnered with US-based edEX to offer online courses from leading international universities including MIT and Berkeley to about 5 lakh people over the next three years.
(c) Byju's, an education technology start-up, has raised US$ 50 million from the Chan Zuckerberg Initiative, founded by Facebook founder Mark Zuckerberg, and existing investors Sequoia Capital, Sofina SA, Lightspeed Venture Partners and Times Internet Ltd.

(d) India and Germany have signed an agreement on vocational education and skill development with a budget of US$ 3.37 million, which will help create and improve cooperative workplace-based vocational training in India's industrial clusters.
(e) Cisco Systems plans to invest US$ 100 million in India over the next 2 years, which will be used to fund early-stage and growth-stage companies in the country, open six new innovation labs, three centers of expertise and train around 250,000 students by 2020.
(f) Neev Knowledge Management Pvt. Ltd, which offers online and classroom-based certification courses under the brand name Edu Pristine, has raised US$ 10 million from Kaizen Management Advisors and DeVry Inc., which will be used to increase its course offerings, and increase its presence to 15 cities across the country.
(g) BRS Ventures & Holdings Ltd, owned by Abu Dhabi-based billionaire Mr. B R Shetty, plans to invest US$ 1.8 billion in Amaravati in the state of Andhra Pradesh across projects in healthcare, tourism, hospitality, infrastructure, and education sector.
(h) Byju's, an education technology start-up, has raised US$ 75 million from US-based venture capital firm Sequoia Capital and Belgium-based investment firm Sofina, which will be used to improve content delivery, expand product pipeline, launch in new markets and continue to build its talent pool.
(i) US-based multinational technology major Intel Corporation has partnered with Extra marks Education, a digital learning solutions provider, to tap the US$ 40 billion private school sector in India and thereby provide optimized learning solutions and extend computing technologies to students and schools in the country.
(j) EdCast, a technology education start-up based in Silicon Valley, plans to invest up to US$ 50 million in education-based technology and tie up with around 500 educational institutions to build digital content and curriculum for educational institutions in India.
(k) Tata Trusts, part of the Tata Group, has entered into a strategic partnership with web-based free learning portal, Khan Academy, and seeks to use technology to provide free education to anyone, anywhere in India.
(l) Venture capital fund Acumen has invested in two Hyderabad-based education start-ups—Ignis Careers (US$ 250,000) and SEED (US$ 650,000)—working in the low-cost school education space.
(m) Anuna Education, a partner to National Skills Development Corporation (NSDC) has announced the Entrepreneurship Program in collaboration with eBay India. Anuna Education will train entrepreneur to sell their products on eBay globally in collaboration with eBay India along with practical training on how to sell the products to global buyers.
(n) The Confederation of Indian Industry (CII) has launched the Strategic Manufacturing Skill Council (SMSC) to train the workforce for defense equipment manufacturing, shipbuilding and repair, homeland security equipment, and other firefighting equipment.

(o) The Central Board of Secondary Education (CBSE) has mandated the appointment of a special educator for children with learning disabilities so that they could be assimilated with other students. This directive came as a part of "inclusive practices" philosophy of CBSE and strict guidelines of "Right to Education" Act.
(p) In an attempt to improve healthcare infrastructure in West Bengal, nine new medical colleges will be opened, out of which five will be government-run while the other four will be set up under the Public Private Partnership (PPP) model.

Government Initiatives

Some of the other major initiatives taken by the Government of India are:

(i) The Union Budget 2016–17 (GoI, 2016) has made the following provisions for the education sector; 10 public and 10 private educational institutions to be made world-class,

  (a) Scheme to get Rs. 500 crore (US$ 73.36 million) for promoting entrepreneurship among *Schedule Caste/Scheduled Tribe* (SC/ST)
  (b) Digital Repository for all school leaving certificates and diplomas
  (c) Rs. 1000 crore (US$ 146.72 million) allocated for higher education financing
  (d) Rs. 1700 crore (US$ 250 million) allocated for 1500 multi-skill development centers
  (e) 62 new Jawahar Navodaya Vidyalayas (JNV) to provide quality education
  (f) Digital literacy scheme to be launched for covering six crore additional rural households
  (g) The objective to skill one crore youth in the next three years under the Pradhan Mantri Kaushal Vikas Yojna (PMKVY)

(ii) The Government of India has announced plans to digitize academic records such as degrees, diplomas, mark sheets, migration certificate, skill certificate, from secondary to tertiary- level institutions into a National Academic Depository (NAD).
(iii) The Government of India plans to set up an advanced research and training institute in chemical engineering, which will offer support services to businesses in technology, design and testing and will train engineers and scientists through its various centers in different parts of the country.
(iv) The Government of India has signed a financing agreement with The World Bank, for International Development Association (IDA) credit of US$ 300 million, for the Madhya Pradesh Higher Education Quality Improvement Project, which aims to improve student outcomes, especially of disadvantaged groups in selected Higher Education Institutions (HEIs) and increase the effectiveness of the higher education system in Madhya Pradesh.

(v) The Human Resource Development (HRD) Ministry has entered into a partnership with private companies, including Tata Motors Ltd, Tata Consultancy Services Ltd, and real-estate firm Hubtown Ltd, to open three Indian Institutes of Information Technology (IIITs), through Public Private Partnership (PPP), at Nagpur, Ranchi, and Pune.

(vi) Prime Minister Shri Narendra Modi launched the Skill India initiative—"Kaushal Bharat, Kushal Bharat". Under this initiative, the government has set itself a target of training 400 million citizens by 2022 that would enable them to find jobs. The initiatives launched include various programs like Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Policy for Skill Development and Entrepreneurship 2015, Skill Loan scheme, and the National Skill Development Mission.

PMKVY is the flagship program under the Skill India Initiative and it includes incentivizing skill training by providing financial rewards on completion of training to the participants. Over the next year, 2.4 million Indians are believed to be benefitted from this scheme. National Policy for Skill Development and Entrepreneurship 2015 is India's first integrated program to develop skill and promote entrepreneurship simultaneously. The vision of this program is to skill the Indian youth rapidly with high standards and at the same time promote entrepreneurship thus creating wealth and gainful employment for the citizens. Skill Loan Scheme is designed to disburse loans of Rs. 5000 (US$ 75.3) to Rs. 150,000 (US$ 2260) to 3.4 million Indians planning to develop their skills in the next five years. The National Skill Development Mission is developed to expedite the implementation of skilling activities in India by providing a robust institutional framework at the center and the state.

(vii) India and Australia have signed a Memorandum of Understanding (MoU) to boost partnerships between the two countries in the fields of higher education and research, including technical and professional education, schools, vocational education, and training.

The National Skill Development Corporation of India (NSDC) under a Public Private Partnership promoted by the Ministry of Finance, Government of India signed a Memorandum of Understanding with Centre for Research & Industrial Staff Performance (CRISP), India to explore national and international opportunities (Business Report, 2017).

FDI Inflow in the Emerging New Model of Higher Education

Since 2001 with internal liberalization in the education sector, by allowing self-financing or full cost + fee charge from students, several self-financing institutions and colleges, as well as self- financing courses in public sectors institutions of higher education, have sprung up. The rate of growth of self-financing universities and colleges has surpassed the all-time rate of growth of higher education in India. Though

these institutions are set up under Trust or Company law as not for profit entities, yet there is a lurking desire to make an investment in education for profit. Many persons in their write up in newspaper have pleaded for this. Since the hurdle of charging full cost + fee from students, has been removed; now there is an attempt to make education service for profit. If this happens external financing in the form of FDI, both under equity and stock would gain pace. There are several reports projecting the market size of education and higher education system in India and great possibility of FDI inflow or trade in education services.

The Budget 2017–18 as stated above has already taken a step in this direction. The emerging new model of higher education may be more digital in nature, many companies may be formed with FDI in the development and transmission of e-learning resources, video-based skill development training program, virtual knowledge development programs in various vocations, which may be in the form of degree or non-degree programs. It may be noted that of the several students from India and many other countries going to the USA and Australia are for the non-degree program. How much external finance will be moped up for these new initiatives is very difficult to conjecture because of the very volatile nature of equity finance and uncertainty about the likely success and the return on investment. But from all announcements, it appears that the government of India is very keen to have external financing for education. The question, therefore, may be asked: How much of external finance and how much should be internal finance? Leaving aside the question- Who should contribute and how much? This is a shift from the earlier question of how much state should bear and how much students should bear, the expenses of higher education. In the second question, there is a theoretical base of political and developmental economics to guide us toward the answer to this question. But in the case of external financing, we need to search for a theory– the theory of external financing of higher education. That is to say keeping in view the objective of human resource development and national development with its priorities and social and cultural dynamics—how much the nation should bear and how much external finance should be solicited. This question also bags for clarity in terms of socio-economic- cultural and development dynamics of a nation–state.

In order to address this issue, first, we will address what is theoretical/research base of FDI?

The Supply Side: The FDI research studies and theory formulation mainly looked into the supply side of FDI. The business of host country attempts to seek a higher rate of return (under neo-classical framework), taking advantage of knowledge, economies of scale, market expansion and control over the business of receiving countries for strategic reasons, and so on.

The Demand Side: The demand side studies, identifying the pull factors—World Bank, 1995, make a sort of case for why host country should attract FDI as also gains from FDI.[3]

For demand side, we are yet to find studies dealing with problems often faced by receiving country owing to domestic market distortions, domestic production

[3] For Discussion on Demand and Supply Side theory of FDI—see FDI Monograph cited above.

derangements, and flight of capital resulting into financial market volatility, speculation and effect owing to the nature of FDI capital flow and sectors to which FDI is employed. An economic theory of FDI has to address both supply and demand side aspects of the external financing of economic sectors from the point of view of host and receiving countries. The education sector, if changed from not for profit to for profit, we have to search a theory of external financing of higher education.

Conclusion

The basic tenets of FD are as follows:

Supply Side: The theory on supply side of FDI is very clear and is based on: (i) the theory of return to investment, (ii) strategy to influence the market expand its market base, (iii) to create system of supply of Human Resources to meet supplying country to meet the demand of Human Resources in the supplying country. These tenets have been followed by FDI providing countries to Indian the (iii) tenet is followed by US, UK, and Germany in the case of setting of IITs in India.

Demand Side: There is a lack of theory of demand side of FDI. But the policy statement on FDI of a nation–state broadly provides a theory of the demand side. The theory being FDI inviting nation attempts to seek: (i) technology of supply side nation for filling the gap in technology which is crucial for the development the nation–state, (ii) to develop their economic and social sector from the foreign funds to bridge the gap of capital resources of the country, (iii) to meet international debt servicing requirement, The international debt servicing requirement or lack of foreign exchange reserve forces demand side country to seek FDI for various sector including education as was done in the case of Mid-Day Meal and other educational program.

In the case of external funding of education, India has followed tenets (ii) and (iii) of demand side theory. India does not seem to have a policy for external funding as part of its FDI policy. It, therefore, needs to evolve a policy of external funding mare particularly on education and higher education.

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Chapter 14
External Aid: Shifting Dynamics of India's Higher Education Cooperation and Exchange

Mona Khare

Abstract India's booming economy in recent years has been supported by a fast growing service sector, rapid urbanisation, increasing share in global markets, high savings and inflow of foreign capital, a rapidly growing middle class and an exploding youth population. This has brought India centre stage in global economy and politics. With the college-age cohort projected to reach 400 million by 2030, India is all poised to become a happening destination. The international community too has rightly identified India as an important partner to education development in the coming years. The global sentiment is supported by the focus to make India a global educational hub by fostering greater international collaborations and its emergence as an education aid donor. India's rising academic leadership in the South Asian region is largely seen as fallout of its liberalisation policy and formation of numerous regional cooperation blocks/groups/associations. India has widened its presence in the region through various modes such that it is no longer identified as just a North–South recipient nation of earlier times. The chapter aims to explore the implications and challenges associated with changing dynamics of India's Higher Education Cooperation and exchange from a recipient nation to triangular cooperation.

Keywords External aid · Global market · Education development · International collaborations · Regional cooperation · Triangular cooperation · Education aid · Liberalisation

Introduction

The less developed countries have historically received and relied on foreign aid to improve their education systems more particularly during the 1950s and 1960s. The aid during that time was largely directed to maintaining and expanding university sector that lost the race to elementary education by mid 1980s and 1990 as the movement towards Universal Elementary Education gained momentum post the

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Jomtien Conference. In recent years, there is growing consensus globally that tertiary education contributes significantly towards formation of human capital, knowledge creation, skills building to suit emerging labour market demands. It leads to socio-economic advancement, and the global attention therefore, is shifted towards post-secondary level of education. With public aspirations also riding high as countries reach almost near universalisation levels for school education and people's rising paying capacities, demand for higher levels of education has gone up also within the developing countries. India's priorities have changed in alignment with its ideological shift towards right-based approach from the earlier welfare approach of education. The same was followed by series of national level policy changes, programmes and schemes to fit within the frame of Education for All (EFA), Internationally Agreed Goals (IAGs)/Millennium Development Goals (MDGs) and later targeting Sustainable Development Goals (SDGs) 2030. Centrally sponsored programmes like the Sarva Shiksha Abhiyan (SSA) for elementary education, Rashtriya Madhyamik Shiksha Abhiyan (RMSA) for secondary education and Rashtriya Ucchatar Shiksha Abhiyan (RUSA) for higher education (HE) are all testimony to India's shift being in line with the global shift. 'Sector wide approach' and shift in focus from quantity to quality are two major dimensions of this shift. There is rising support through foreign aid to implement such shifts. The recent initiatives of the government to make India are towards making it a global educational hub.

International Education Aid and India

India has been amongst the high aid recipient countries. But if measured as proportion of India's total education expenditure or per capita aid, its volume is low. While the nineties witnessed a rapidly rising trend in real aid receipts for education, the same could not be sustained in the later half of the last decade (Tilak, 2008). Keeping in line with India's commitment to elementary education development, donor organisations/countries supported various central schemes to augment resources to the sector, especially to the basic education level. The support for higher education sector was mainly through bilateral collaborations (UK, USA, Japan, Australia and France) in funding technical and higher education by way of scholarships, technical collaboration and technical training. Few organisational donors like World Bank (Technical Education Quality Improvement Programme-(TEQIP) and Technician Education Project) and UNICEF (strengthening of District Institutes of Education and Training—DIET and pre-service training for school teachers) also supported this sector (Khare, 2015).

The new millennium but brought new priorities and new dimensions to India's external aid in education financing as was happening at the world level (Table 14.1). A decline in the share of basic education and an increase in the share of HE is clearly visible at the world level. In fact, higher and secondary level of education today constitutes almost half of the Official Development Assistance (ODA) flowing to

education sector. This is happening even when the total education aid as a percentage of aid to all sectors has come down considerably (Table 14.1).[1]

India's sub-sectoral shifts are in fact more strikingly in favour of post-secondary education as compared to the world. Most likely, as a fallout of India's demographic dividend paving way to rising interest of the global community in its education sector, the share of post-secondary education aid has increased. On the other hand, share of ODA flowing to basic education in India's total education aid has come down drastically (Table 14.2).

However, if one looks at the foreign aid as proportion to India's education budget, the shares are not only very low but have declined over the years. Hence, aid is not any significant addition to India's public expenditure on education as a whole and HE in particular. The proportion of education aid to total education expenditure in India was 4% in 2002–03, only to come down to a mere 0.4% in 2014. Similarly, the percentage for HE, which was much higher at 7% in 2002–03, came down drastically to a mere 0.5% in 2014 (Debi, 2018).

A further break-up of aid in post-secondary education to higher education and advanced technical and managerial training shows predominance of the former over later, both in the world and India (Tables 14.3 and 14.4).

The gap between the two is in fact higher in India, thereby once again showing growing interest and importance of the higher education in recent years for the international community and the Indian Government. Although HE has a dominant share of post-secondary education aid, the share of advanced technical and managerial training is improving slowly. This may be a fallout of increasing global demand for higher order skills. Such shifts can better be understood further by doing a phase wise analysis in India's education aid.

Policy and Programmatic Shifts in Education Aid

In the initial years of planning, India's educational development programme was domestically driven as well as domestically financed. In the nineties financial constraints forced India to move from 'protectionism' to 'liberalism' which is clearly reflected in the changing dimensions of its educational aid. It can be divided into four phases which can be earmarked post-independence.

[1] Recommendation from the Working Group Communique from the Post-secondary leaders' forum in the latest 18th Conference of Commonwealth Education Ministers held in 28–31 August 2012 explicitly incorporated in the Ministerial Communiqué at para 23 (d)) for forthcoming IAGs for education.

Table 14.1 Level-wise share of official development assistance world (%)

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Basic education	29.42	20.81	28.01	23.35	27.62	27.8	29.55	21.28	32.1	22.85
Secondary education	9	11.4	11.17	10.85	9.37	9.22	16.12	14.6	14.5	15.46
Post—secondary education	30.92	36.52	38.8	30.03	38.75	41.54	32.36	33.54	34.36	31.02
Level unspecified	19.58	26.49	21.26	32.78	20.98	23.77	20.7	30.2	19.05	21.29
Total education	9.18	9.33	7.59	8.78	8.51	7.34	7.2	6.54	7.59	7.15
Aid all sectors	131,515.29	129,695.82	157,578.59	160,351.20	161,981.37	165,317.10	171,441.42	189,620.86	179,078.57	191,635.98

Source OECD (2017)
Note Constant Prices US$ Million, 2014

Table 14.2 Level-wise share of official development assistance to India

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Basic education (% of total education)	68	46	46	40	4	4	4	7	4	4
Secondary education (% of total education)	3	6	5	4	25	32	14	6	3	3
Post-Secondary education (% of total education)	19	35	33	48	56	50	62	70	76	76
Education level unspecified (% of total education)	10	13	16	9	15	14	16	11	12	10
Total education	100	100	100	100	100	100	100	100	100	100
Education as % to all sectors	14	7	9	9	6	8	6	6	5	6
All sectors (USD Mil)	236 0.02	293 6.58	280 8.69	228 2.24	277 6.50	291 7.65	355 7.08	297 5.01	424 8.08	381 2.70

Authors calculations based on OECD Creditor reporting system
Constant Prices US$ Million, 2018

Table 14.3 Type-wise share of official development assistance to post-secondary education world (%)

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Higher	96.27	95.44	95.54	93.72	92.26	96.16	94.95	95.87	95.06	93.89
Advanced technical and managerial training	4.41	4.90	4.66	6.93	8.23	3.75	5.12	4.16	4.94	6.91
Post-secondary education	30.92	36.52	38.80	30.03	38.75	41.54	32.36	33.54	34.36	31.02
Total education	12,067504	12,104938	11,9600.550	14,0810.134	13,789473	12,133631	12,338197	12,395145	13,599474	13,707185

Authors calculations based on OECD Creditor reporting system https://stats.oecd.org/Index.aspx?QueryId=97803#

Table 14.4 Type-wise share of ODA to Indian post-secondary education

Sub-Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Higher education (% of post-secondary)	98.34	98.65	98.95	98.35	96.51	98.32	97.84	99.33	99.32	99.19
Advanced technical and managerial training (% of post-secondary)	1.66	1.35	1.05	1.65	3.49	1.68	2.16	0.67	0.68	0.81
Post-secondary education total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Post-secondary education total (USD Mil)	62.41	69.13	79.14	94.83	100.26	116.99	135.66	140.19	159.24	183.62
Higher education (% of total education)	19.15	34.69	32.75	47.00	54.30	48.76	65.19	74.95	80.22	81.62
Advanced technical and managerial training (% of Total education)	0.32	0.47	0.35	0.79	1.96	0.83	1.44	0.51	0.55	0.66
Total education (USD Mil)	320.48	196.60	239.16	198.43	178.19	235.88	203.60	185.78	197.16	223.16

Source Authors calculations based on OECD Creditor reporting system https://stats.oecd.org/Index.aspx?QueryId=97803#
Data extracted on 15 May 2020 06:47 UTC (GMT) from OECD. Stat: Constant Prices US$ Million, 2018

Phase I: Pre Liberalisation

Pre-liberalisation (prior to the nineties) can distinctly be divided between the eras of Centralised Planning with Domestic Funding during 1950s to 1970s followed by era emergence of Project-based External Funding between 1970s and 1990s.

The first sub-period during this phase was financed largely through domestic sources. India followed the philosophy of 'closed doors' until the 1990s. Most externally funded projects were seen in higher, technical[2] or vocational education sector as standalone projects. The aid was meant for development of new institutes institutional development support like IITs, polytechnics by UK and USA. But their impact was limited and had low visibility.

The following era was marked by domestic resource crunch as education sector kept expanding the states' exchequer became constrained for funds. Although GOI was apprehensive in taking external aid till now, it was forced to reach out to external funders for both monetary and non-monetary reasons like 'changes and improvements in the system through increased attention to non-monetary inputs' (GOI, 1980–85: Section 21.47). In existing literature, external interference in domestic policies and WB's 'domineering behaviour' in designing and implementing projects (Ayyar, 2007) are quoted to be the major causes of earlier reluctance. The 7th five year saw influx of external aid in primary education by way of several small-scale projects. This was also in line with the growing world movement towards universalisation of EE. The 1980s was thus an era of Project-based External Funding in pilot mode in different qualitative areas but confined to EE.

Phase II: Post-Liberalisation (Decade I—1990 to 2000)

The first decade of post-liberalisation was characterised by sector programme-based approach to external funding. Nineties began as one of worst periods of India's financial situation with huge Balance of Payment (BOP) account crisis on one hand and burgeoning fiscal deficits on the other hand which made open its arms to external donors. But, here too, the sub-sectoral focus of Government of India (GOI) as well as the donor agencies was clearly in line with global movement towards Universalisation of Elementary Education (UEE). This period GOI (8th FYP, 1992–97 and 9th FYP, 1997–2002) saw substantial volumes of external aid flowing from multitude of foreign agencies (World Bank (WB), European Union (EU), Department for International Development (DFID) and United Nations International Children's Emergency Fund (UNICEF) and Netherlands). Yet another move towards greater accountability and effective utilisation of aid money also became evident. The above characteristics

[2] Externally Aided Projects in Technical Education available at http://mhrd.gov.in/ext_aid.

were guided by the conditionalities placed by GOI in its 8th plan document: henceforth, aid resources had both to provide additional capacity beyond what was already being funded and (reflecting earlier project experience) support innovative projects emphasising community participation, widening access and improving quality (GOI 8th FYP, 1992–97).

Phase III: Can Be Termed as a Period of Emerging Self Reliance, Sector Wide Approach (SWAP) and Aid Consolidation (2000–2010)

Beginning of this period (1997–2002) was marked by sharp increase in foreign aid. But, soon there was a reversal in India's approach to foreign assistance as a policy matter (10th Plan, 2002–2007) with obvious repercussions on the education sector too. Two factors can be quoted to be the major reasons behind this policy reversal.

1. *Huge Repayment Burden*: Of the 60% of total aid to India from multilateral sources 90% were from WB in the form of loans with high repayment burden. The net external assistance adjusted for repayment showed significant decline in aid starting 2000. In 2002–2003 where the repayment was as high as 198% (Colclough and De, 2010).
2. *Improving BOP crisis*: After the adoption of the LPG Policy in 1990, there was huge accumulation of foreign reserves leading to improved BOP situation. By the middle of September 2002, they reached $ 62,021 million from a mere $ 5834 million in 1990–91.

As such in its New Aid Policy (2003), India decided to pre-pay its debts and voluntarily decline the acceptance of small volumes of foreign assistance from large number of erstwhile bilateral donors. Also, it aimed at greater donor harmonisation. Country ownership was emphasised, and a number of external partners were reduced—both of which were in line the Paris Declaration on Aid Effectiveness (OECD-DAC, 2005).

SWAP approach initiated during this period was thus a derivative of the need to harmonise national plans and priorities with external funding. In the light of rising international concern towards aid utilisation and effectiveness as against aid volume in the earlier decade (Paris declaration and ACCRA Agenda, 2008), the decade saw phasing out of small multiple donors and re-emergence of India's dominance in dictating partnerships as it emerged as a major donor than recipient. The 'external partners' were now to be viewed as 'development partners (DP)' (Khare, 2016).

In the tenth plan, synergetic private sector partnership was promoted and aid was allowed to be channelled to non-governmental organisations (NGOs) directly and not via GOI after 2003. DPs were promoted to negotiate directly.

Phase IV: Post-2010: Shifts in Sub-Sectoral Priorities, International Cooperation in Higher Education for Long Duration

India's changing demographics and resultant higher demand for secondary and post-secondary education led to sub-sectoral shifts in priorities from elementary to secondary, higher and technical education. Vocational education too was given renewed impetus. As external support to the central sector scheme for EE, Sarva Siksha Abhiyaan came to an end, WB, DFID (EU) came forward to support the next level CSS of RMSA to support secondary school expansion in the country. In addition, World Bank's support to the TEQIP (Technical Educational Quality Improvement Project) came in technical education sector in two phases—through International Development Association (IDA) as the first World Bank Project in Higher Education came in 2004–2009 and later in 2010–2014. Competitive institutions selected for dependent on their commitment and capability to promote academic and administrative autonomy as per pre-defined criteria. In Education, 'Keeping in line with India's development strategy, three areas were identified viz. academic exchanges, HE and EU and Indian Studies Centres'. (The Country Strategy papers/Long-term operational Plans World Bank (2013–17) and DFID (2011–15). With the GOI 12th FYP (2012–17) titled 'Faster, Sustainable and more inclusive growth', the DPs are targeting low income and special category states. The focus is now on ensuring access of underprivileged children, retaining girls in secondary education and increasing opportunities for HE in regions with higher proportion of poor and disadvantaged population.

The focus, shifted to quality, research and innovation as well as technical and vocational education (Table 14.5), RMSA, being the only one at school level. External aided projects were to be reduced while bilateral, trilateral and plurilateral partnerships in education to be increased.

The following changes can thus be seen to have already taking shape and are likely to get strengthened in future. (1) Foreign partner's rising interest and GOI's shifting focus back to higher and technical education. (2) Only three major bilateral partners in education remaining (USA—USAID; UK—DFID and Japan—JICA). Other multilateral include UNDP, WB (IDA), EU. (3) Along with assistance to government programmes NGO as well as private sector initiatives to be strengthened. (4) Choice of cooperation partners to be undertaken in a more cautious manner. (5) The private partners to be selected on the basis of their past records and credibility. (6) Joint programmes to be implemented on pilot basis through government sponsored organisations like Small Industries Development Bank of India (SIDBI) and National Skill Development Corporation (NSDC) particularly in the area of skills and employability improvement. (7) Thematic and geographic bundling of resources to become important factors when aiming at critical mass intervention. (8) More integrated support package comprising of financing advisory services and knowledge tailored to the needs of individual states. (9) Priority states to be chosen keeping in view donor as well as national interests (Khare, 2015).

Table 14.5 Externally aided projects under central plan where inflows during 2013–14 are Rs. 100 crore or more

(in crores)							
Name of the concerned	Name of the project	Name of the	Actuals	Actuals	BE	RE	BE
Ministry/Department		Funding Agency	2010–11	2011–12	2012–13	2012–13	2013–14
Department of agricultural Research and education	Innovation project	IDA	–	176	131	150	400
Department of school education and literacy	Rashtriya Madhyamik Shiksha Abhiyan	IDA & DFID	–	–	–	–	625
Department of higher education	Technical education quality improvement project of GOI	IBRD	5	183.13	350	197.63	400
Ministry of labour and employment	Vocational training Improvement project	IDA	189.22	88.91	100	100	150

Source Khare, (2015) (p. 172), GOI, Expenditure Budget Vol. I, 2013–14

India Resurgence as Emerging Donor

Although India often seen as a major educational aid, recipient nation of it has a long record of funding to UN and WB Agencies as well as several neighbouring countries. In terms of its small volume of lending, the country may be quoted as an 'emerging donor' but it has been donating for education and training from independence and now can be seen to be emerging as strong 'development partner'.

India as Historical Donor

India's educational aid programme dates back to assistance to Nepal in the 1950s, the Technical Cooperation Scheme (TCS) under the Colombo Plan to Indian Technical and Economic Cooperation Scheme (ITEC) since 1964[3] and the Special Commonwealth African Assistance Programme (SCAAP) through which India has provided assistance to 161 countries in Asia, East Europe, Africa and Latin America. The last

[3] Ministry of External Affairs, Government of India Indian Technical and Economic Cooperation (ITEC) Programme https://www.itecgoi.in/about.php.

two together, amounted to nearly US$ 2 billion since their inception. However, all this was largely limited to capacity development and technical education. They are demand-driven development schemes aiming at bilateral cooperation and partnership for mutual benefit. ITEC/SCAAP aid[4] comprises five different modalities: training of personnel in India, project aid, technical assistance, study trips and humanitarian assistance. Under the scheme, candidates from 158+ countries are trained in some of the best institutions giving special knowledge in the field of information technology, rural development, development of small-scale industries and mass communication.

In addition, India has been the third major donor only after UK and Canada in Commonwealth of Learning (COL)—a collaborative venture of Commonwealth countries towards preparation of instruction materials, telecommunication technology, training and information service since 1988.

Three Forms of India's Foreign Assistance Programme

As per records, there are three parts of India's foreign assistance spending. These include, grants and preferential bilateral loans to governments; contributions to international organisations (IOs) and financial institutions (IFIs), and subsidies for preferential bilateral loans provided through the Export Import (EXIM) Bank of India (Khare, 2015, p. 178).

A major proportion of education and training assistance from India come by way of first two forms. India's definition of foreign assistance does not fit into 'ODA' frame of Development Assistance Committee (DAC). Infant its 'overseas development assistance' comes as a mixed bag of project assistance, purchase subsidies, lines of credit, travel costs and technical training costs incurred by the Indian government" (Agrawal, 2007).

Recent years have seen significant increase in India's bilateral cooperation agreements with various countries. It ranges from providing experts to multilateral organisations like the Commonwealth, the Asian Development Bank (ADB) and the WB to partnering with plurilateral funding bodies. Both bilateral and multilateral funding have increased.

New Dimensions of India's Aid to Education

Widening Aid Space: India is widening its reach geographically through multiple types of activities. From neighbouring countries to far ones like Bangladesh, Sri Lanka, Indonesia, Mongolia, Burma, Singapore, Cambodia to Bhutan, Afghanistan,

[4] Ministry of External Affairs, Government of India Indian Technical and Economic Cooperation (ITEC) Programme https://www.itecgoi.in/index.php.

Nepal and Africa. Its school development activities range from literacy to nutritional support, construction of school buildings, scholarships, vocational education and skill development. Other areas include capacity development of teachers and administrators in monitoring, school tracking and planning.

ITEC now has four key components[5]: (1) A student training programme in India, where the students are chosen by the ITEC partner countries. The main areas of focus are trade, investment and technology. (2) Projects and related activities, including feasibility studies and consultancy services supporting regional programmes under the Economic Commission for Africa (ECA), G77, AARDO (African-Asian Rural Development Organisation), G15, and SADC (Southern African Development Community) (Chaturvedi et al., 2014).

Aid to Most Poor Developing Countries in Partnering Mode: India shifted its focus to humanitarian and development support for the poorest nations (The New Foreign Aid Policy of India 2003). Authors quote that India's aid to Africa has grown at a compound Annual rate of growth of 22% over ten year period starting from late nineties (Ramachandran, 2010). India proposes to offer 5 billion dollars over the next three years under lines of credit to Africa. An additional 700 million dollars are being offered for establishing new institutions and starting training programmes. The engagement with Africa is both at bilaterally and multi-laterally. A major proportion of this money has gone towards setting up Pan Africa E-network project connecting schools and hospitals of all 53 African countries with top institutions in India aiming at skill and knowledge development of students. Two other recent initiatives in Africa are setting up of African Institute of Information Technology and African Institute of Educational Planning and Administration (Khare, 2015).

Rising Contribution to Joint Funds: India's involvement via regional bodies is growing. Its contribution to India–Brazil–South Africa (IBSA) Trust Fund, Africa Development fund, UNESCO-SSC funding for education (UN Economic & Social Council, 2008), World Bank's Trust Fund for South–South learning are few examples. Rather, as per a UNDP report (UNDP, 2016), almost 70% of India's technical assistance aid has gone to education and capacity development activities in South–South cooperation.

Making Single Coordinating Body—(DPA): India has recently a separate department was created in the Ministry of External Affairs (MEA) in GOI in January 2012 with the purpose of providing single window service for its foreign assistance programme. The Development Partnership Administration (DPA) has technically qualified (technical, legal and financial professionals) staff which is required to fast-track all stages of India's aid project implementation. It has three divisions. 'Currently, DPA I deals with project appraisal and Lines of credit; DPA II deals with capacity building schemes, disaster relief and Indian Technical and Economic Cooperation Programme; and DPA III deals with project implementation' (MEA, 2012).

[5] Indian Technical And Economic Cooperation, Ministry of External Affairs, Government of India. https://www.itecgoi.in/index.php.

Emerging Directions

Exchange and collaboration have long existed. New ones are coming up for co-innovation and cocreation. Inter-governmental multi-country institutions like the South Asian University in New Delhi by SAARC Member Nations is one such example. Joint teaching including online blended and distance education, setting up study centres and India chairs in foreign universities, mutual recognition and credit transfers, quality enhancement and benchmarking, exchange of publications and academic material are fast catching up. Earlier, most collaborative researches were coming through individual faculty collaboration, but now Institutional Partnership Projects led by India and by foreign partners are picking up (Khare, 2015). E-9 countries decision to work towards developing institutional capacities for assessing learning outcomes is another one.

Institutional collaborations through branch campuses and education hubs are becoming common, as are more systematic co-innovation and co-creation approaches, in both South–South and North–South arrangements. Well-defined long-term (often thematic) partnerships and broad-based inter-governmental collaborations on mutually agreeable terms and mutually beneficial subject domains have emerged. The Singh-Obama knowledge initiative (with the USA), the UK–India Education and Research Initiative (UKIERI), the Indo-German Meta Universities initiative, the India–New Zealand Education Council and the India–Israel Research Initiative are all examples of this shift (Khare, 2018, p. 51).

A large number of newer forms of educational cooperation (Box 1) have resulted in recognition of India as a rising educational hub.

It can thus be seen that the nature and scope of India's education aid activities are both expanding and diversifying. India's aid ideology of development partnership is becoming more explicit in its increasing regional and international cooperation in Education. Also, in order to improve its accountability, an umbrella agency to deal with all matters related with foreign assistance has been created recently.

Box 1 Newer directions of education cooperation

Inter-Governmental institutions
Joint teaching including online blended
Distance education
Study centres
India chairs in foreign universities n vice versa
Mutual recognition and credit transfers
Quality enhancement and benchmarking
Exchange of publications and academic material
Institutional partnership projects led by india and foreign partners

Source Khare (2015, p. 187)

India's Changing Education Aid Modalities

On the basis of the above analysis down the years, India's changing aid modalities can be consolidated as in Box 2:

Impressions of Changing Dynamics of ODA

The rapid regional integration, education networking and India's rising economic power in the last two decades have affected the educational aid dynamics in the country in three ways—decreased dependence on ODA for budgetary support; shift from tied to untied aid and India's emergence as a donor country aimed at developing nations in the region.

Donor agencies like World Bank and DFID too are shifting financing centrally sponsored schemes of GOI to poorer state government and pro-poor private sector investments (DFID). A change of focus from elementary to higher levels specifically technical and vocational education is evidenced. Promoting private sector by bringing matching funds is on rise, moving away from 'donor–recipient' relationship to 'partnering' relationship.

As a result, while ODA for education is declining by way of low interest grants, it is likely to increase by way of returnable capital to donor agencies. Also, more money would be flowing in through bilateral and trilateral partnerships in the light of increasing SSC and triangular development cooperation (TDC) and the revised guidelines on India's external aid policy in 2006.

Box 2 Outline of changing AID modalities

Areas of shift	From	To
Ideology	Donor–Recipient	Development partners
Approach	Project/Programme-Based aid quantum top-down	Sector wide (SWAP) Aid effectiveness bottom-UPL
Policy	Major aid recipient	Emerging aid donor
Focus	Primary/Elementary/Vocational Access/Equity	Secondary/Higher/Professional Quality/Learning/Employability Skills
Involvement	Bilateral/N-S/Multilateral multiple donors	S–S, triangular cooperation/through regional bodies fewer donors
Areas of cooperation	Financial assistance/technical cooperation	Knowledge sharing/capacity building
Duration	Short term	Long-Term commitments
Aid basis/planning	Input based	Output based/target oriented

Source Khare (2015, p. 189)

India is also promoting triangular cooperation in which Indian institutions provide training to candidates from developing countries with funding being made available by donor countries or multilateral institutions. There are all signs that the distinction between N–S and S–S remain only artificial creations as both sides are trying to become truly 'global' and not 'regional'. The establishment of following bodies recently can be considered to be a movement in the above direction. (1) The South–South Experience Exchange Trust Fund (SEETF) set up by the World Bank (2010) aiming to promote smooth functioning of horizontal learning initiatives between low income/developing countries not only within the same region but also East–West, South–East, North–South, South–North; (2) conversations amongst the BRICS WB Country; and (3) an axis focused on the South–South dimension of the Aid Effectiveness agenda consisting of World Bank Institute (WBI) and the World Bank's Operations Policy and Country Services (OPCS) unit. India is also trying to leverage its comparative advantage in South Asia and Africa in order to be recognised as a rising educational hub (Khare, 2015).

Conclusion

The public expenditure on education as percentage of GDP has continued to hover around 3.5% for more than a decade now, as against the targeted 6% with HE getting a mere 1.5%. While need for additional resources in the light of increasing demand for quality education remains a concern by way of poor achievements and educational outcomes, India's foreign assistance has been low and declining. India's capacity development needs revolve around developing strategies and monitoring competencies for quality enhancement focusing on enhancing and enriching teaching and research capacities both quantitatively and qualitatively particularly in the field of humanities and social sciences; faculty enrichment by upgradation of teaching skills; greater use of ICT for teaching learning; sensitisation and promotion of inclusion in classroom practices; guidance, counselling and training for quality publications; curriculum development and innovation, development of teaching learning material and networking with industry and international academia/organisations. Capacity for designing and delivery of high quality Technical and Vocational Education and Training (TVET) programmes, good governance practices, leadership and managerial skills for institutional leaders are few other areas that demands special attention.

India's new policy directions indicate at lesser reliance on external aid. The focus is now more on 'nationalising the foreign aid programme and process'. If in the long run, it is good for countries to rely on domestic sources to finance their national systems of education and look for innovative means to finance 'ambitious goals' post-2015 (EFA GMR, 2013; UNESCO-IIEP, 2010; Varghese, 2010), then India seems to be moving in that direction by resorting to newer modes of financing. The external partners too have committed themselves to using 'innovative new forms of financing that put purchasing power directly in the hands of citizens (poverty-targeted vouchers

and incentive schemes), pay implementing partners for delivery of results and bring in matched funding from private philanthropic sources'.

Greater role of private players envisaged in the coming years. The new priority areas include Institutional Collaboration for Education and Research; Globally Compatible Credit Systems, Curricula Internalisation Processes for Mutual recognition of Qualification; Skill Development; Exposure to Diverse Teaching—Learning Models and use of ICT; Faculty and Student Exchange Programmes and Opportunities for Indian Institutions abroad. India aims to strengthen its regional presence through its external assistance programme is also getting reflected. As international aid moves towards partnering and collaborative mode, steps should be taken to provide distinct directions and have measurable deliverables. Also, a more balanced approach of international aid/education financial organisations towards all sub-sectors of education school, higher, vocational and professional would be required to do away with the asymmetries of the past and meet the future desires and demands of educated youth. Such concerns are more significant in Indian context given its already existing high order inter-personal inequalities and inter-regional disparities.

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Chapter 15
Student Support System in India

Pankaj Mittal

Abstract India's higher education system has undergone rapid expansion in the recent past and is now the second largest higher education systems in the world. The cross-border students are not many, and India remains predominantly a sending country rather than hosting international students. This trend is changing and India is gradually and slowly emerging as a destination country for pursuing higher education especially by students from developing countries of Asia and Africa. Although provisions exist for enrolling more foreign students, the enrolment remains low. The low foreign student intake could be due to a variety of factors like infrastructural facilities, types of courses offered, the quality of education and the faculty and the poor student support services. This chapter will focus on the role played by the student support services available in the Indian context and the role played by University Grants Commission (UGC) in augmenting them.

Keywords Student support system · International students · Developing countries · Quality of education · Student grievances · Research environment · Scholarships · Digital initiatives · Open education resource · Skill development

Introduction

With the world's second largest population, and a fast-growing and influential economy, India's higher education system has undergone rapid expansion in the recent past and is now one of the largest higher education systems in the world (after China and the USA). In 2019, there are 993 universities, 39,931 colleges and 10,725 standalone institutions. Two ninety-eight universities are affiliating, i.e. having colleges. Three eighty-five universities are privately managed. Three ninety-five universities are located in rural area. Sixteen universities are exclusively for women (MHRD, 2019).

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When we analyse the presence of international students in India, we realize that India has predominantly been sending students abroad rather than receiving international students. As per the data published by Association of Indian Universities, 182,000 Indian students were studying abroad in 2014. However, India with only 30,423 international students in 2015 has been attracting only a fraction of international students, though the number has gone up from 7791 in the year 2000. However, India is gradually and slowly beginning to emerge as a destination for pursuing higher education especially by students from developing countries, particularly from Asian continent followed by Africa. In 2014–15, India received maximum students, i.e. 18,325 (60.23%) from Asia followed by Africa (5880), America (1033), Europe (490), and Oceania (138) (AIU, 2017). The low foreign student intake could be due to a variety of factors like infrastructural facilities, in particular for foreign students, types of courses, autonomy to the higher education institutes, the quality of education and the faculty, the teaching pedagogy and the student support services. Although the steps are being taken to address these issues at various levels, we will discuss here the student support services available in the Indian context and the role played by University Grants Commission (UGC) in augmenting them. The various types of facilities extended to the students in Indian universities and colleges are discussed below.

Safe Campuses

A safe, secure and cohesive learning climate is an undisputed precondition to quality education and research in HEIs. It should be the prime concern of educational administrators across the country to ensure that students are safeguarded against attacks, threats and accidents, both man-made and natural. To ensure safety in Indian campuses, the following steps are taken (UGC, n.d.).

Creating a Safe Environment for Students

The Commission has formulated guidelines on the ways in which the campuses of Higher Education Institutions (HEIs) can be transformed into oasis of safety, security and study. HEIs can play a significant role in ensuring the safety of the students by putting in place foolproof mechanisms and impregnable standards of safety. The key lies in institutionalizing the best practices and standard operating procedures that can substantively protect students from any threats and assaults, physical, social or psychological. Keeping this in view, the HEIs are required to take definite steps in the interest of students and institution which are elaborated in the guidelines (UGC, n.d.).

Curbing the MENACE of Ragging

In pursuance to the Judgement of the Honourable Supreme Court of India dated 8.5.2009 in Civil Appeal No. 887/2009), the University Grants Commission notified "UGC Regulations on curbing the menace of ragging in higher educational institutions, 2009" on 4 July 2009. These regulations are mandatory for all institutions of higher learning (UGC, 2009).

Further, to curb the menace of ragging, a nationwide toll-free multilingual Anti-Ragging Helpline (1800-180-5522) has been established which can be accessed by students in distress, owing to ragging-related incidents. The helpline has been established with call centre facilities in 12 languages, viz. English, Hindi and regional languages (Tamil, Telugu, Malayalam, Kannada, Punjabi, Marathi, Oriya, Assamese, Gujarati and Bengali), for helping victims of ragging incidents, and facilitating effective action in respect of such incidents. The Helpline directly receives complaints from the complainant/victim of ragging. The same is forwarded by the helpline to the respective institutions and the local administration (Police Authorities) for taking necessary corrective action. A dedicated anti-ragging cell functions in the UGC to coordinate the various anti-ragging measures. A monitoring agency is also in place to monitor the cases of ragging on a regular basis. All complaints regarding alleged ragging incidents received in the UGC are very promptly attended to and action taken reports are sought from the institution concerned immediately on receipt of the complaints. In cases of delayed response, repeated reminders are sent and when no action taken is reported, punitive action is initiated (UGC, 2019).

The Commission has made it mandatory for all institutions to incorporate in their prospectus the directions of the government regarding prohibition and consequences of ragging. The Commission also includes a specific condition in every Sanction Letter for financial assistance where by every institution has to certify that the institution has complied with the anti-ragging measures. At the start of every academic session, the HEIs are cautioned through public notices, Website and letters regarding strict compliance of anti-ragging measures and Self-Declaration Forms are obtained from the students that they will not involve in ragging. A study was also conducted through Jawaharlal Nehru University, New Delhi, on "Psychosocial Study of Ragging in Selected Educational Institutions in India". The report is available on UGC Website (Rao et al., 2015).

A massive media Publicity Campaign is also launched annually to educate the masses and to create awareness about ill effects of ragging, the punishments to offenders and the recourse available to the victims through radio and television channels. Various competitions involving students like poster designing, logo/icon/slogan designing, essay competition and national film making competition on ragging and its effects on the students and the society at large are organized in universities and colleges all over the country to spread awareness on ragging. Several short films are also produced which are regularly shown to the students and are available on UGC Website.

Addressing Grievances of Students

It is important to ensure that the grievances of the students are addressed timely so that they can make the best use of their time during their stay on the campuses. The issues which are unresolved over a long time adversely affect the mental peace and causes avoidable agony. Therefore, utmost care is taken to address students' issues at the earliest. Some of the formal steps taken to ensure this are enumerated below.

Public Grievance Portal

UGC receives online Public Grievances (PG) from Centralized Public Grievance Redress and Monitoring System (CPGRAMS), i.e. PG portal maintained centrally by the Government of India. The grievances are registered by petitioners on *pgportal.gov.in* and are forwarded to various Ministries. The UGC receives the grievances pertaining to it through the Ministry of Human Resource Development and addresses them in a time bound manner. This initiative aims to provide mechanism for timely redressal of public/students grievances and ensures transparency.

Student Grievance Portal

In addition to the above, the UGC maintains a dedicated Online Student Grievance Redressal Portal which facilitates the students to lodge their grievance and view its status. The grievances can be lodged for a variety of reasons like admission process, reservation policy, discrimination of students on the basis of caste, creed and race, untimely conduct of examination, non-declaration of results, lack of student amenities and non-payment of scholarships/fellowships, victimization of students and sexual harassment cases, etc. (News views, 2015). A prompt response to the grievance is ensured through HEIs.

Addressing Imbalances

India is a diverse nation with a complex social fabric with persons from many caste, colour and creed. Historically, some sections of the society have been deprived of their rights and facilities and need special attention to prevent caste-based discrimination in Higher Educational Institutions. Social exclusion not only generates tension, violence and disruption, but also perpetuates inequality and deprivation in society. In India, certain communities such as Scheduled Castes (SCs), Scheduled Tribes (STs) and religious minorities experience systemic exclusion in the matter of getting advantages of development and are socially disadvantaged (UGC, 2019). Special efforts are

required to remove these disadvantages in the society and to ensure social balancing. Some of the steps taken in this regard are given below.

Socially Disadvantaged Sections of the Society

To address the social imbalances faced by students belonging to Scheduled Caste/Scheduled Tribe, Backward classes and Minorities, UGC ensures that reservation is adhered to as per the national policy. All the universities/institutions are directed to adopt the Reservation Policy for SCs/STs in total and display the reservation roster on the Website. Universities and institutions are also requested to amend their Acts and Statues for the statutory support for reservation in admission, in appointments to teaching and non-teaching posts and representation of SCs/STs in their statutory bodies like Syndicate, Executive Council, Academic Council, Selection Committees, etc. (UGC, 2019).

The UGC has been contributing towards social equity and socio-economic mobility of the underprivileged sections of the society through special coaching schemes in universities and colleges (UGC, n.d.). Remedial coaching is imparted in HEIs for the benefit of students with a view to improve and strengthen their knowledge, academic skills and linguistic proficiency in various subjects and to improve overall performance in the examination. Special coaching is also provided to prepare SC/ST/OBC and minority community candidates for clearing National Eligibility Test (NET), which is an essential eligibility condition for becoming an assistant professor/lecturer in universities and colleges. In order to gain useful employment in Groups A, B and C, including all Indian and State provincial services or equivalent positions in the private sector, focussed coaching is provided to enable students to clear these competitive examinations. Residential coaching academies for Minorities/SCs/STs/Women Students are also set up at Aligarh Muslim University, Maulana Azad National Urdu University, Jamia Hamdard University, Babasaheb Bhim Rao Ambedkar University & Jamia Milla Islamia University. The impact study of these coaching schemes related to SC, ST and OBC (non-creamy layer) and minorities is also being undertaken by UGC (2019).

Facilities for Persons with Disabilities

The Constitution of India ensures equality, freedom, justice and dignity of all individuals and implicitly mandates an inclusive society for all including persons with disabilities. The Persons with Disabilities Act, 1995 indicates that differently abled persons should have access to education at all levels. In the higher education sector, the University Grants Commission has been supporting universities and colleges in the country and involving them in special education activities to empower differently abled persons (UGC, 2019).

The UGC ensures the implementation of policy decisions, including reservations in admissions and employment pertaining to the persons with disabilities including the implementation of provisions contained in The Person with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995. Besides, the UGC is also implementing plan schemes for the benefit of persons with disabilities (PWD, 1995). The Higher Education for Persons with Special Needs (HEPSN) scheme is basically meant for creating an environment at the higher education institutions to enrich higher education learning experiences for differently-abled persons. Creating awareness about the capabilities of differently abled persons, construction aimed at improving accessibility, purchase of equipment to enrich learning, etc., are the broad features of this scheme. The Teacher Preparation in Special Education (TEPSE) scheme is meant for assisting Departments of Education to launch special education teachers' preparation programmes to prepare special teachers to teach children with disabilities in both special and inclusive settings by providing financial assistance to offer Bachelor of Education (B.Ed.) and Master of Education (M.Ed.) Degree courses with specialization in one of the disability areas. Visually challenged permanent teachers are provided financial help to pursue teaching and research with the help of a reader and by using teaching and learning aids like Braille books, recorded materials, etc. (UGC, 2019).

Equal Opportunity Cells in Universities/Colleges

To make colleges and universities more responsive to the needs and constraints of the disadvantaged social groups, the Equal Opportunity Cell (EOC) are established in Colleges and universities to oversee the effective implementation of policies and programmes for these groups and to provide guidance and counselling in academic, financial, social and other matters (UGC, 2019).

Centres for Study of Social Exclusion and Inclusive Policy

Social exclusion is a complex and multidimensional concept having social, cultural, political and economic ramifications. The primary space where "exclusion" can be studied, understood and first transcended is our HEIs, which can act as a beacon for society. To undertake research on the issue of social exclusion a number of teaching-cum-research centres have been established in universities (UGC, 2019).

Creating Enabling Environment for Research

Research keeps the inquisitive minds vibrant and knowledge updated. The students studying in our Higher Education Institutions are given an early exposure to research by creating research facilities like laboratories, libraries and other essential facilities which are the major training grounds for the researchers. In addition, the students are provided about 80,000 scholarships and fellowships at various levels to attract them towards research and to enable them to carry out intensive and in-depth research in specific subject areas. To ensure timely disbursement to the intended beneficiaries, the scholarships and fellowships to awardees are paid online under Direct Benefit Scheme (DBT). The fellowships administered by UGC at various levels are given below (UGC, 2019).

Post-Doctoral Fellowships

For SC/ST Students

The objective is to provide fellowships to SC/ST students for a maximum period of five years for doing advanced research in their chosen areas. The students who have obtained a doctoral degree with published research work to their credit along with evidence of independent research work are eligible to get this fellowship amounting to Rs. 38,800/-per month for first 2 years and Rs. 46,500 per month from the third year onwards with contingency amount of Rs. 50,000/-per annum for five years (UGC, 2019).

For Women

For the unemployed women, holding Doctor of Philosophy (Ph.D.) degrees and intending to pursue post-doctoral research on a full-time basis, 100 fellowships are provided per annum with the fellowship amount of Rs. 38,800/-per month for fresh candidates, and 46,500/-per month after 2 years with a contingency amount of Rs. 50,000/-per annum for five years (UGC, 2019).

General Candidates

Dr. S. Radha Krishnan Post-Doctoral Fellowship in Humanities and Social Sciences, including languages, provides an opportunity to carry out advanced studies and research in Indian universities and colleges. The total number of slots available under the scheme is 100 per year. The fellowship amount is Rs. 38,800/-per month

for 1st year, Rs. 40,300/-for 2nd year and Rs. 41,900/-for 3rd year with contingency amount of Rs. 50,000/-per annum. A similar provision for science subjects is made and named as Dr. D. S. Kothari Post-Doctoral Fellowship in Sciences (UGC, 2019).

Foreign Students

Under the Scheme of Research Associates for Foreign Nationals, the UGC selects seven (fixed fellowships) foreign national candidates to pursue post-doctoral research in Indian universities. At present, about 60 foreign nationals are pursuing Ph.D./Post-doctoral Research under the Scheme (UGC, 2019).

Doctoral Fellowships

Junior Research Fellowships

Junior Research Fellowships (JRF) is provided to the Indian candidates who qualify National Eligibility Test (UGC NET) conducted by UGC/CSIR. The JRF carries a fellowship amount of Rs. 25,000/-p.m. for first two years and Rs. 28,000/-p.m. for the remaining period with annual contingency. At present, approximately 22,000 scholars are pursuing Master of Philosophy (M.Phil.)/Ph.D. while availing UGC Junior Research Fellowships (UGC, n.d.).

National Fellowship to SC/ST Students

To minimize the social disparities in Higher Education, about 2000 Rajiv Gandhi National Fellowships are provided to SC candidates to undertake advanced studies and research leading to M.Phil./Ph.D. degrees. The pattern of fellowship is the same as for JRF. Similarly, National Fellowship for Higher Education is provided to the ST students (UGC, 2019).

Maulana Azad National Fellowship for Minorities

The objective of Maulana Azad National Fellowship is to provide integrated 5-year fellowships in the form of financial assistance to students from minority communities as notified by the Central Government to pursue higher studies such as M.Phil. and Ph.D. The number of slots available to students is 756 every year. The rate of fellowship is on par with the other UGC fellowships (UGC, 2019).

National Fellowship for Students with Disabilities

To promote students with disabilities to pursue higher education leading to degrees such as M.Phil. and Ph.D., 200 national fellowships are awarded with fellowship amount at par with other JRF Schemes (UGC, 2019).

National Fellowship for Students of Other Backward Classes (OBC)

National fellowship for students of Other Backward Classes (OBC) with 300 slots is awarded every year in all the subjects at par with other fellowship schemes (UGC, n.d.).

Swami Vivekananda Single Girl Child Fellowship

Keeping in view Swami Vivekananda's ideas on women and to promote and achieve girls' education, Swami Vivekananda Single Girl Child Fellowship has been introduced for research in social sciences. The fellowship amount is Rs. 12,400 per month for the first two years and Rs. 15,500/-per month for the next two years (UGC, 2019).

Research Fellowships in Sciences for Meritorious Students

The "Research Fellowships in Sciences for Meritorious Students" (RFSMS) scheme has been implemented with an aim to provide opportunities to meritorious candidates to undertake advanced studies and research leading to Ph.D. degrees in Sciences. The candidates who are registered for Ph.D. in Science subjects in universities with Potential for Excellence/Centers with Potential for Excellence/Centers of Advanced Studies and Departments of Special Assistance identified by the UGC are eligible. The tenure of the fellowship is initially for two years, and it can be extended to three more years based on the evaluation of work done by the Fellow. The financial assistance initially is to the extent of Rs. 21,700/-per month as fellowship amount with Rs. 12,000/-per month as contingency for the first two years and Rs. 24,800/-per month for the next three years with contingency grant of Rs. 25,000/-per annum (UGC, 2019).

Post-Graduate Scholarships

PG Scholarship for Professional Courses to SC/ST Students

A new scheme, viz. Post-graduate Scholarships for SC/ST Students in Professional Courses, has been implemented keeping in view the social background of the candidates from deprived sections of the society and to provide them an opportunity to undertake post-graduate level studies. The number of slots is 1000 per year.

Indira Gandhi Scholarship for Single Girl Child

Indira Gandhi Scholarship for Single Girl Child is aimed at promoting and achieving girls' education by providing scholarships to such girls who happen to be the only child in their families with a view to promoting girls' education and providing incentive for observing small family norms. Girls who have taken admission in Master's degree programme in any recognized university or a PG college are eligible. The duration of the scholarship is for a period of two years with the scholarship amount of Rs. 3100/-per month. (For 10 months a year). All eligible girl students get the scholarship under the scheme (UGC, 2011).

PG Scholarship for GATE Qualified Students

To help the graduate students pursue post graduate (PG) studies in higher educational institutions, the UGC has been providing PG Scholarships for Graduate Aptitude Test in Engineering (GATE) qualified students of Master of Engineering (M.E.)/Master of Technology (M.Tech.)/Master of Pharmacy (M.Pharm.) with Scholarship amount of Rs. 12,000/-per month (for those who have 60% above in all semesters) and a contingency grant of Rs. 5000/-per annum. The numbers of beneficiaries are 1200 per year.

Merit Scholarships for University Rank Holders

With an objective to promote and nurture talented students to pursue PG education, the scheme of PG Merit Scholarship for university rank holders at the undergraduate level is implemented. The awardees under the scheme can pursue their PG studies (professional courses are not covered) in any area of specialization in any institution of higher learning in the country. The first and second rank holders in general courses and only the first rank holders in honours' courses are eligible for the scholarship. The duration of scholarship is two years with scholarship amount of Rs. 3100/-per month (for 10 months a year) (UGC, 2019).

Undergraduate Scholarships

Ishan Uday Scholarship for North Eastern Region

To promote Higher Education in North Eastern Region (NER), "Ishan Uday" Special Scholarship Scheme for North Eastern Region is implemented. The rate of scholarship is Rs. 5400/-per month for General Degree Courses and Rs. 7800/-per month for Technical and Professional Degree courses. Ten thousand candidates are selected under the scheme for North Eastern Region (UGC, 2019).

Free Education for Medal Winners

Free education for sports medal winners/participants of national/international events has been introduced during the XII Plan by the UGC. The objective of the scheme is to provide financial assistance to Medal Winners in National Games or participants in recognized international sporting events and elite sportspersons who are studying in universities/colleges for full-time regular courses (UGC, 2019).

Digital Initiatives for Students to Improve Their Experience on Campuses

Direct Benefit Transfer

Direct Benefit Transfer (DBT) is an attempt to change the mechanism of transferring grants launched by Government of India. The purpose of DBT is to ensure that benefits go to individuals' bank accounts electronically, minimising tiers involved in fund flow, thereby reducing delay in payment, ensuring accurate targeting of the beneficiary and curbing pilferage and duplication. UGC has been implementing 16 Fellowship/Scholarship Schemes under DBT (UGC, 2019).

National Academic Depository (NAD)

Indian Higher Education system is a large and growing system with approximately 55 school boards, 359 state universities, 123 deemed universities, 47 central universities and 260 private universities. Apart from these, there are 107 other institutions such as IISc/IITs/IIMs/NITs/IISERs/IIITs/NITIE and 12 other centrally funded institutions. These institutions issue academic awards to students including degrees, diplomas and certificates along with mark-sheets and evaluation reports (NAD, n.d.).

Those who are entering into employment or pursuing higher studies require a credible, authentic and convenient mechanism for access, retrieval and validation of

such academic awards. Retrieval of old academic records maintained in paper form is cumbersome and is prone to hazards such as spoilage and forgery. Students often face difficulties in obtaining copies of their certificates/mark-sheets whenever they are lost or destroyed. Maintaining academic awards in a digital depository would enable educational institutions, students and employers online access/retrieval/verification of digitised academic awards and shall eliminate fraudulent practices such as forging of certificates and mark-sheets (NAD, n.d.). The National Academic Depository aims at ensuring a credible and convenient mechanism for online lodging, verification and authentication of the academic awards issued by various educational institutions (Mohan, 2019).

The National Academic Depository (NAD) is an initiative to provide an online storehouse of all academic awards. National Academic Depository (NAD) is a 24×7 online store house of all academic awards, viz. certificates, diplomas, degrees, mark-sheets, etc., duly digitised and lodged by academic institutions/boards/eligibility assessment bodies. NAD not only ensures easy access to and retrieval of an academic award but also validates and guarantees its authenticity and safe storage (NAD, n.d.).

National Academic Depository comprises of two interoperable digital depositories, viz. CDSL Ventures Limited (CVL) and NSDL Database Management Limited (NDML). These digital depositories have ensured hardware, network facilities and software of prescribed quality for smooth and secured operation of NAD (NAD, n.d.). The academic institutions/boards/eligibility assessment bodies are required to select either of the two depositories for entering into legally enforceable agreement for utilizing services of NAD. The students and verification users are free to select either of the depositories to register on NAD with the facility of portability; i.e. the users of NAD may switch among the depositories if they are not satisfied with the services rendered. Since, the depositories are interoperable, the data would be automatically synced among the depositories, and the user can seamlessly operate the same account with the other depository.

Benefits of National Academic Depository

For academic institutions

National Academic Depository will help in keeping permanent and safe record of all the issued academic awards. There will be no need for issuing duplicate academic awards and students can get it directly from NAD. NAD will further help in effective deterrence of fake and forged paper certificates. All academic awards verification needs can be addressed by NAD. NAD will also help in enabling efficient, effective and transparent administration (NAD, n.d.).

For students:

NAD can be beneficial for students as well. With NAD, there will be an online permanent record of academic awards. There will be immediate availability of academic awards once it is uploaded by academic institution. NAD will eliminate the risk

of losing, spoiling or damaging of the academic awards. NAD will also enable the convenient access to the academic awards anytime and anywhere.

NAD will be beneficial for the verification users as well as it will enable the quick, reliable and online verification of academic awards with the prior consent of the concerned student. NAD will ensure that the users have an access to authenticated copy of academic awards and it will eliminate the risk of fake and forged certificates. Also, NAD will help in the reduction of cost, time and efforts in the verification process.

Open Education Resource Creation

The Government of India launched the ambitious National Mission on Education through Information and Communication Technology (NMEICT) in 2009, for employing technology to provide connectivity, along with provision for multiple access devices, to institutions and learners; and for content generation (Mittal, 2017).

Under the Mission, more than 810 online courses in various disciplines of engineering and science have been developed. Over 126 Virtual Labs in nine engineering and science disciplines, comprising more than 770 experiments, are currently ready for use and available. Thousand five hundred spoken tutorials are available on line. A large number of courses for design have also been created (Business Standard, 2015). Under the NMEICT scheme, a total of 403 universities have been connected through 1 Gbps optical fibre; 22,026 colleges have so far been connected with 10 Mbps bandwidth. Also, access is being provided to more than 3100 e-journals and 80,000 e-books to all degree colleges except colleges imparting education in engineering, management, medical, nursing, pharmacy and dentistry, under the N-LIST programme (National Library and Information Services Infrastructure for Scholarly Content). (Mittal, n.d.)

In 2011, UGC was entrusted with the responsibility of developing of e-content in 77 subjects at post-graduate level to create high-quality, curriculum-based, interactive content in different subjects across disciplines of social sciences, arts, fine arts and humanities, natural and mathematical sciences and linguistics and languages (Mittal, n.d.). The objective of the scheme is to provide high-quality e-content for post-graduate (PG) programmes offered in Indian universities for the benefit of the teachers and students. This will address disparities of various kinds like rich/poor, urban/rural, caste- and religion-based disparities, geographical disparities, regional disparities, etc. The electronic contents (e-contents) can be viewed by the students to supplement their classroom teaching or as a standalone method of learning various topics taught at the PG level. The e-contents will also be beneficial to teachers as they can improve upon their teaching after viewing the quality e-contents available on the UGC Website under e-PG Pathshala programme. The content being developed is of high-quality, curriculum-based, interactive, in various subjects covering all disciplines of social sciences, arts, fine arts and humanities, natural and mathematical sciences, linguistics and languages. The Learning Management System for e-PG Pathshala (http://epgp.inflibnet.ac.in/) is available in open access and hosted on INFLIBNET server (Information and Library Network) and is also accessible

through Sakshat Portal. (UGC, n.d.)The e-content developed can be used as an Open Educational Resource (OER) or as a Flipped Classroom model where in contrast to the conventional classroom teaching, there is no teaching in the classroom. The students watch the video lecture/study material, e-text in this case, at home and only discussion/problem solving and assignments with teachers and peers, is done in the class. This e-content is being accessed across the globe and the current data analytics of visitors suggest that several International visitors have been accessing the site (Mittal, n.d.).

Introduction of MOOCs

To provide seamless integration of conventional education with Massive Open Online Courses (MOOCs) through SWAYAM platform (Study Web of Active Learning by Young and Aspiring Minds) by using multimedia on anytime, anywhere basis. The MOOCs courses are being developed to benefit life-long learners, students, teachers, homemakers, and researchers, etc. Nine national Coordinators have been identified by Ministry of Human Resource Development (MHRD) for developing MOOCs from School to PhD level for the SWAYAM platform (Mittal, n.d.). These are, National Council of Educational Research and Training (NCERT) for school education from 9 to 12th; National Institute of Open Schooling (NIOS) for out of school children from 9 to 12th, Consortium for Educational Communication (CEC) for Non-technology Under-Graduate (UG) programmes; University Grants Commission (UGC) for Non-technology Post-Graduate (PG) programmes; Indira Gandhi National Open University (IGNOU) for Diploma and Certificate programmes; National Programme on Technology Enhanced Learning (NPTEL) for Technical/Engineering UG and PG degree programmes; Indian Institutes of Management (IIM) for management programmes and National Institute of Technical Teachers' Training and Research (NITTTR), Chennai for Teacher Training programmes and All India Council for Technical Education (AICTE), Delhi for courses in Engineering and Colleges from private institutions.

UGC (Credit Framework for Online Learning Courses through SWAYAM) Regulation, 2016 were issued on 19th July 2016 as per which a student studying at a recognized institute anywhere in the country can earn up to 20% of the credits in a particular program by successfully completing the MOOCs Courses offered on SWAYAM (Mittal, n.d.).

DTH SWAYAM-Prabha

Another initiative of MHRD to disseminate the audio-visual content developed as part of e-content and MOOCs was the launch of 32 Direct-To-Home (DTH) educational TV channels called "SWAYAM Prabha". These channels are broadcasting educational content in diverse disciplines of four hours every day, telecast six times

a day allowing the student to choose the time of his/her convenience. Content telecast covers all level of education: school education, undergraduate, post-graduate, engineering, out of school children, vocational courses and teacher training (Mittal, n.d.).

Outcome of the Technology Enabled Learning Initiatives

Different pedagogies in the form of e-PG Pathshala (OER and Flip Classroom model), MOOCs and DTH would provide students and teachers with different approaches to learning and innovation in teaching, and optimally use the resources and time on hand. The MOOCs will address the problem of faculty shortage in universities and colleges, by providing students with the best quality faculty from all over the country. Students will be able to earn 20% credits through MOOCs. The project would also help the students and teachers to update their knowledge and skill especially for those located in rural/backward/remote areas and would successfully bridge the digital divide and would help the nation move towards information-rich society (Mittal, n.d.).

Skill Development Initiatives

Community Colleges

The Community Colleges have been established to offer low cost and high-quality education encompassing both vocational skills development and traditional coursework to a large number of individuals of the community, thereby providing them the flexibility to move directly to the employment or the higher education sector. It offers a flexible and open education system which also caters to community-based life-long learning needs. It has a synergistic relationship between the community, community college and the job market. The primary objective is to make higher education relevant to the learner and the community by integrating relevant skills into the higher education system with a view to provide skill-based education to students currently pursuing higher education, but actually interested in entering the workforce at the earliest opportunity; (UGC, 2019).

Bachelor of Vocation Degree Program

The Bachelor of Vocation (B.Voc.) Degree Programme is launched to align higher education with the emerging needs of the economy so as to ensure that the graduates of higher education system have adequate knowledge and skills for employment and entrepreneurship. National Skills Qualifications Framework (NSQF) has

been formulated to enable the graduates completing B.Voc. to meaningfully participate in accelerating India's economy by gaining appropriate employment, becoming entrepreneurs and creating appropriate knowledge. This has been initiated primarily to provide judicious mix of skills relating to a profession and appropriate content of General Education to the students to ensure that they have adequate knowledge and skills, so that they are work-ready at every pre-defined multiple exit point of the programme. The programme integrates NSQF within the undergraduate level of higher education in order to enhance employability of the graduates and meet industry requirements. Such graduates, apart from meeting the needs of local and national industry, are also expected to be equipped to become part of the global workforce (UGC, 2019).

DDU KAUSHAL Kendras (Deen Dayal Upadhyay Knowledge Acquisition and Upgradation of Skilled Human Abilities and Livelihood Kendras)

The DDU KAUSHAL Kendras are established to create skilled manpower for industry requirements at various levels from short-term certificate courses to full-fledged postgraduate degree programme and further research in specialized areas. The courses are planned/designed to have provision of multiple entry and exit at various levels up to a research degree. These shall also include courses which are offered under the Community College Scheme and B.Voc. degree programme of UGC. The curriculum for courses at post-graduate level are formulated keeping in mind the need of (i) industry in specialized areas; (ii) instructional design, curriculum design and contents in the areas of skills development; (iii) pedagogy, assessment for skills development education and training; (iv) trained faculty in the areas of skill development; and (v) entrepreneurship, etc. These centres undertake Research and Development (R&D) in the areas related to skill education and development, entrepreneurship, employability, labour market trends, etc., at the post-graduate and research levels and act as finishing school by providing supplementary modular training programmes so that a learner, irrespective of his/her training background, is made job-ready with necessary work skills (soft, communication, ICT skills, etc.) and fill the gaps in the domain skills measured against Qualification Packs (QPs)/National Occupational Standards (NOSs). Another objective of these centres is to provide for Recognition of Prior Learning (RPL) framework for job roles at NSQF Level 4 onwards by conducting assessment and certification with respective Sector Skill Councils (SSCs)/Directorate General of Employment and Training (DGET) and maintain Labour Market Information for respective regions in coordination with other government agencies and industry associations (UGC, 2019).

Conclusion

The traditional concept of student support services, relating primarily to counselling and guidance has been expanded to cover the aspects of student safety, creating a socially balanced student community, addressing their grievances in an effective manner, promoting research among students, promoting digital initiatives for teaching and learning and skilling them to ensure gainful employment in this article. I hope readers will enjoy reading and will be acquainted with the student support services provided to students studying in Indian higher education institutions through University Grants Commission interventions.

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Chapter 16
Financing of Higher Education: A Study of PM's Special Scholarship Scheme for Jammu and Kashmir Students

Vetukuri P. S. Raju

Abstract India has extended various forms of student support to help students belonging to disadvantaged regions and groups. This chapter analyses the implementation of the special scholarship scheme for the students from Jammu and Kashmir. The study finds that the special fellowships remained under-utilized and the main reason seems to be lack of awareness about the scheme among the students. Most of the students in J&K, including the capital region Srinagar, are unaware of this scheme, and so they are unable to apply for scholarship under this scheme. It was more difficult for the message to reach the remote rural areas. Another difficulty was related to Internet connectivity. Many could not upload online application in the absence of Internet accessibility. The other set of problems related to the status of students admitted to institutions which are not recognized by the regulatory authorities. Further, many colleges are not in a habit of regularly updating their Websites.

Keywords Special scholarship scheme · Student support · Disadvantaged · Special fellowships · Utilization of scholarships · Disbursement of scholarships

Introduction

The financing of higher education in the twenty-first century has been dominated by two phenomena. First, higher education is increasingly becoming important to economies, individuals, and societies striving for democracy and social justice. Second, the cost of higher education is rising significantly. Massification, driven by demographics and the larger number of students completing secondary school and desiring the higher education, is driving up unit costs of instruction and research. The overall cost pressure is increasing at a rate beyond what most countries' public revenue streams can pace with. This is a critical trend, given that public revenue has

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traditionally accounted for some, if not all, of the higher education expenses in a majority of the world's countries (Mandalová et al., 2014, p. 157).

The share of education funds allocated to higher education declined steadily throughout the 2000s, in many countries since many of them have moved away from a total reliance on state funding policy cost recovery methods. Public universities are managed and primarily funded by a combination of state and private resources. Fee levels vary among public universities, with greater levels of cost recovery in professional and technical programmes. However, fee levels generally remained low and institutions face intense political pressure not to increase fees. Private universities are usually financed almost entirely from tuition fees but often receive support in the form of capital or land grants from governments in the initial phase. There has been much experimentation around the world with new ways of financing in higher education. To this end, private universities are now increasingly funded through their boards of trustees, who generate income through fees and commercial ventures (EIU, 2013).

In the world, there are some countries where financing for higher education is primarily based on public funding and the share of private funding is least. On the other hand, there are some countries where private financing is the main source of funding higher education while public funding is very low. For the countries where private funding is least, there is strong need to adopt new models of financing higher education by generating income through their own sources on the pattern of non-public sources of financing to support at least partially.

Financing of Higher Education in India

After independence, the growth of higher education in India was tremendous, and it was at par with the international pattern of high growth rates in the 1960s, but in the following decades, it was progressed with declining rates of growth (Tilak & Varghese, 1991). The objective of higher education development in India has been to promote and sustain self-reliant socioeconomic development. The higher rates of expansion of the system during the 1950s and the 1960s can be attributed to the requirements of manpower and also considerations for equity (Tilak & Varghese, 1991).

After entering the globalized world, the demand for higher education has increased sharply due to increasing in the pay-off to high-level skills to low-level skills reducing the complementary cost between equity and competitiveness-driven reforms (Varghese, 2015).

Tilak, while referring the higher education scenario in the early 1980s, pointed out that higher education is financed in India largely by the government and the long-term trends in financing show that higher education is increasingly becoming a state-funded activity. In the absence of a private university that time, a large number of private colleges, most of which were 'privately managed but publicly funded', 80–90% of their recurrent budgets was provided by the government. He further argued,

from the point of view of finance, efficiency and equity that the private sector's contribution to educational development was almost negligible (Tilak, 1992).

The share of higher education expenditure in GDP was 0.86 in 2009–10 which further increased to 0.89% in the year 2012–13 (Adhikari, 1992). Due to these characters, the government and government-funded institutions accounted for major student enrolment share in this sector of education (Varghese, 2015, p. 28). In the budget of 2016–17, the government allocated Rs. 28,840 crore to the Department of Higher Education which is Rs. 3441 crore more than the previous financial year.[1]

Apart from the governmental support, there are various organizations, communities, and individuals who bear the cost of higher education in the country. Various central universities receive grants for maintenance and development from the central government through the UGC, while other universities and colleges receive the necessary support from the state governments and some development grants from the UGC.

The government is continuously trying to enhance the share in the total expenditure on higher education to improve the status of higher education. For the expansion of higher education in the country, the government has consistently increased its share in the total expenditure on higher education, from 49.1% in 1950–51 to more than 90% in 1999 to finance the higher education (Chitnis, 1999, p. 26), while there is a nominal fee for the students to pay to the institute that constitutes 10–15% of the total budget of the institution (Maiti, 2001; Tilak, 1997). However, the fee contribution from the students to the institutions may vary significantly between central and a state institution which is a considerable amount to university income in the state universities. Many institutions (colleges and universities) offer fee waivers to women and scheduled caste and scheduled tribe students.

On the issue of examining alternative methods of financing higher education in India, Tilak argues that the 1963-launched National Loan Scholarship scheme programme in India has been identified for marginal improvement and also made little contribution to either the efficiency or equity of higher education in India (Tilak, 1992).

In a developing country like India, socioeconomic disparity at the inter-state and intra-state level is so severe that no single mechanism can be equally valid or effective for addressing problems faced by the different states. Access to education is one of the important reasons for the existence of a skewed distribution among states. Therefore, from time to time, initiatives are taken to address this issue at the primary, secondary and higher education levels. One such initiative was the constitution of an expert committee by the Prime Minister of India on 18 August 2010 with the objective of enhancing employment opportunities in J&K and for formulating jobs' plan involving the public and private sectors. The proposal emerges from the identified strategy for a human resource development initiative focusing on improving the skill set through improved access to higher education.

[1] http://economictimes.indiatimes.com/industry/services/education/budget-2016-government-to-create-higher-education-financing-agency/articleshow/51198247.cms.

The higher education financing system is beginning to change and a policy of fostering financial independence in universities and degree colleges (reducing government allocations to universities and increasing user fees) has been in place since 1997. Despite policy pronouncements, action has been recently taken. While the UGC has the legal right to set tuition and fees, it has not done so—in practice, it is the individual state governments and institutions that take the initiative.

Even though there are many important schemes or fellowships for the higher education in India, one innovative scheme, i.e. Prime Minister's Special Scholarship Scheme, was introduced for Jammu & Kashmir (SSSJK) students to develop the skills and increase their employability in the market. These schemes are unique and specific to support and encourage to those students in J&K who are aspiring to pursue higher education outside the states.

This paper is based on the empirical study conducted to understand the implementation processes and impact of the Special Scholarship Scheme for J&K (Raju, 2015).

Special Scholarship Scheme for Jammu & Kashmir

The 'Special Scholarship Scheme for J&K' seeks to encourage students to pursue higher education (in undergraduate programmes) in various streams outside the state in institutions of their choice. The scheme provides 5000 fresh scholarships annually to J&K students comprising 4500 for general degree programmes, 250 for engineering and 250 for medical studies (MHRD, 2013).

Criteria for Selection of Students

Students belonging to the state of J&K, appearing for the Class XII or equivalent exam through the State Board of J&K and from Central Board of Secondary Education (CBSE) affiliated schools located in J&K and seeking to pursue general degree programmes, engineering and medical studies in govt. colleges/institutes/other non-govt. institutes, recognized by AICTE or UGC or institutes created through an Act of the state govt., located outside the state of J&K, would be eligible for the scholarships.

There is a provision for inter-changeability of slots from general degree programmes to medical and engineering streams, subject to savings due to a shortfall in the number of students opting for the general degree programmes within the overall financial ceiling as per the scheme guidelines. In case the number of applicants exceeds the number of scholarships available, then the awardees are selected on the basis of marks scored by them in class XII or equivalent examination. The family income ceiling will be Rs. 6.00 lakh per annum. The scheme seeks to provide tuition fees, hostel fees, cost of books and meet other incidental charges of the students. There will be internal earmarking of scholarships for SC, ST and OBC categories

as per the quota prescribed for the state of J&K. However, in case of any quota remaining unfilled, it would be filled up by general category students. Horizontally, a reservation of 3% will be provided to physically handicapped students, according to government norms (MHRD, 2013).

Disbursement of Scholarships and Renewals

Under this scheme, every scholar would be eligible for receiving tuition fees up to Rs. 30,000 per annum for general degree programmes up to Rs. 1.25 lakhs per annum for engineering programmes and up to Rs. 3.00 lakhs per annum for medical studies, including Bachelor of Dental Surgery (BDS). In addition, hostel fees and incidentals will also be provided for all categories of courses, for which the ceiling will be rupees one lakh per annum. Moreover, course fees, hostel fees, etc., would be paid as per 'actuals', subject to production of related receipts. The charges for rented accommodation would be reimbursed on the basis of certification by the head of the college/institute regarding the reasonableness of rates, etc. (MHRD, 2013).

The scholarship granted under the scheme will be renewed in the subsequent classes subject to good conduct and meeting the prescribed attendance required by the student concerned. Students failing to get promoted to the next class/level would continue to get the scholarship in the following year, subject to the condition that if the student fails again the second time, he/she would forfeit the scholarship and the scholarship would not be renewed in the subsequent years. If a scholar is unable to appear in the annual examination owing to illness or on account of any unforeseen event, the scholarship may be renewed for the next academic year on submission of medical certificate and/or other proof to the satisfaction of the head of the institution who will certify the same (MHRD, 2013).

Implementation of the Scheme

Utilization Pattern of Scholarships

Initially when the scheme was launched in 2011, merely 38 students (0.76%) availed the benefits of the scheme because of lack of awareness of the scheme among the students and parents in the J&K state.

In the academic year 2012–13, a total 6108 applications were received out of which 61.80% of applicants got eligibility for the scholarship. Out of these eligible students, around 58.91% of the students belonged to engineering programmes and 10% opted for medical programmes. Similarly, in the academic year 2013–14, total 6726 applications were received out of which 68.17% of applicants got eligibility for the scholarship. Approximately, 50.47% of the eligible students were approved

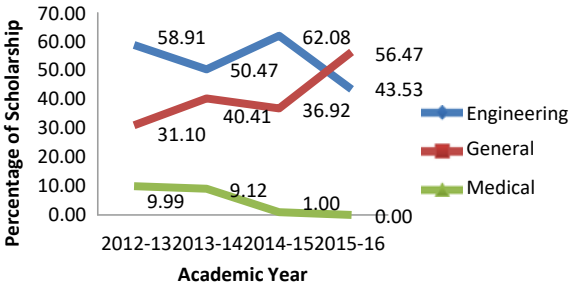

Fig. 16.1 Programme-wise allotment of scholarships. *Source* All India council for technical education (2012–13 to 2015–16)

for engineering programme category. In the medical category, 67.20% more eligible students were approved over and above the stipulated number (250) available for the medical category. The above number shows that the scholarship which was approved is much more than the stipulated mark.

Figure 16.1 represents that in the academic year 2014–15 a total 9371 applications were received. But, due to flood situation in the state, several students could not attend the counselling session and thereby not become eligible for the scholarship. Therefore, merely 22.43% students have got selected for the scholarship. In the engineering category, 62.08% students got selected. But in medical category, merely 8.4% of students got selected for the available seats i.e. 250. In other words, more than 90% of the seats under the medical category were vacant.

In the academic year 2015–16, a total of 3742 students have been allotted scholarship during centralized counselling conducted at Srinagar and Jammu. A total of 56.47% scholarships were approved for general degree programmes and 43.53% of the scholarships approved for engineering category.

Social Profile of Students Obtaining Scholarships

This particular scheme follows the reservation policy of the government of J&K. As per their policy, the reservations have been categorized into five major categories, namely open category, scheduled castes, scheduled tribes, socially and educationally backward classes and physically handicapped. There is no reservation for open category, and it is based on merit for all category students. The category of scheduled castes has a reservation of 8%, scheduled tribes has a reservation of 11%, socially and educationally backward classes has a reservation of 25% and finally, and physically handicapped category has a reservation of 3%.

Table 16.1 shows the caste-wise distribution of eligible students for the scholarship for the years 2012–13 to 2014–15. According to the table, in the year 2012–13, out of 3562 eligible students for scholarship, the maximum number of students belonged to open category (93.43%), followed by scheduled tribe students (4.21%) and scheduled caste students (2.33%). In 2013–14, out of 3747 eligible students for scholarship, the maximum number of students belonged to open category (76.59%), followed

Table 16.1 Category-wise eligible students for scholarship from 2012–13 to 2014–15

Category	2012–13	2013–14	2014–15
Open category (no reservation)	3328 (93.43%)	2870 (76.59%)	1568 (74.59%)
Schedule castes (8% reservation)	83 (2.33%)	183 (4.88%)	146 (6.94%)
Scheduled tribes (11%) (a) Gujjars and Bakerwals (6%) (b) Residents of District Leh (2%) (c) Residents of District Kargil (2%) (d) Other than (a), (b) and (c) above (1%)	150 (4.21%)	205 (5.47%)	82 (3.9%)
Socially and educationally backward classes (25%) (other than SC and ST) (a) Weak and under privileged class (2%) (b) Residents of area adjoining Actual Line of Control (3%) (c) Residents of backward areas (20%)	1 (0.03%)	481 (12.84%)	306 (14.57%)
Physically handicapped (3%) (all categories)	0 (0.00%)	8 (0.21%)	0 (0.00%)
Total	3562 (100%)	3747 (100%)	2102 (100%)

Source All India council for technical education (2012–13 to 2014–15)
*Open category students are selected on merit belongs to all categories

by SEBC (12.84%) and ST (5.47%). In the subsequent year, 2014–15, there were a total of 2102 students eligible for the scholarship, out of which (74.59%) students were from the open category, (14.57%) from Socially and Economically Backward Classes (SEBC) category and 6.94% from Scheduled Caste category. From the table, it is evident that the number of students eligible for scholarship increased in 2013–14 but fell sharply during 2014–15 due to floods.

State-Wise and Category-Wise Number of Students Admitted

The state-wise and category-wise number of students eligible for scholarship has increased by 5.20% between 2012–13 and 2013–14 and decreased by 43.9% between the time span of 2013–14 and 2014–15. In 2012–13, the maximum number of general category (69.23%) students had taken admission in Rajasthan, OBC (0.03%), others (38.22%) and ST (34%) in Haryana and SC (28.92%) in Punjab. In overall terms, the highest number of students had enrolled in Haryana (37.56%) followed by U.P. (19.06%), Rajasthan (13.59%) and Punjab (10.98%).

In the year 2013–14, the maximum enrolment under general category was in Rajasthan (33.64%), followed by U.P. (18.67%) and Punjab (18.24 %). In the OBC category, only one student had taken admission in Haryana. In the open category, Haryana accounted for the maximum enrolment of students (26.31%), followed by Punjab (23.59%), followed by Rajasthan (20.38%), followed by Uttar

Pradesh (12.95%) and finally followed by Himachal Pradesh (4.57%). The state with the highest number of admissions in the SC category was Rajasthan (32.82%) followed by Punjab (25.12%). In SEBC category, maximum students were enrolled in Rajasthan (32.57%), followed by Punjab (19.29%) and Haryana (17.84%), whereas in ST category maximum students were in Rajasthan (34.81%), followed by Haryana (20.44%) and Karnataka (13.26%). In overall terms, Rajasthan (28.32%), Punjab (20.58%) and Haryana (18.25%) were the top three states in terms of the number of students admitted from J&K.

In the year 2014–15, two new reserved categories enlisted were Gujjar and Backward Resident of Backward Area (RBA). The maximum enrolment under Open (OP) category were in Karnataka (14.11%) followed by Maharashtra (13.47%) and U.P. (13.98%), while for Gujjar and Backward category, it was only two each in M.P. for RBA and in Himachal Pradesh and one in Kerala. Similarly, in the OBC category, it was only one in Rajasthan and one in Haryana. In the SC category, the top enrolments were in Punjab (26.03%), Haryana (17.81%) and Rajasthan (15.07%). Similarly, in SEBC category, the maximum enrolment was in UP (14.62%) followed by Haryana (12.62%), Karnataka (11.96%) and Rajasthan (8.64%), wherein ST category highest enrolment was in Haryana (21.95%) followed by Punjab (17.07%) and Uttar Pradesh (14.63%). In aggregate terms, the maximum number of students who migrated to other states was in U.P. (13.51%) followed by Haryana (12.37%) and Karnataka (12.75%).

State-Wise Distribution of Institutions Which Admitted Beneficiaries

The distribution of the total number of institutions state-wise at the all-India level, in which J&K students have taken admission under special scholarship scheme during 2012–13 to 2014–15. The total number of institutions under the special scholarship scheme has increased rapidly over the years.

In 2012–13, the total no. of institutions was 335 which were increased to 476 in 2013–14 before finally rising to 1849 in 2014–15 accounting for a sixfold increase since 2012–13 (see Fig. 16.2).

For the year 2012–13, the highest percent of engineering institutions where 49.19% students of J&K had taken admission was in Haryana (59) followed by 17.94% students in Punjab (43). The highest percentage of students for medical studies was accounted for by institutions in Uttar Pradesh (12) where 41.64% students were enrolled. The maximum numbers of students in institutions for the general degree were in Haryana (20) around 26.21% students were enrolled, followed by 3.01% students in Delhi (17).

For the year 2013–14, the highest numbers of engineering institutions with 27.22% J&K students enrolment were located in Haryana (73), followed by 24.31% students in Punjab (59) and 12.76% students in U.P. (42). The highest numbers of medical

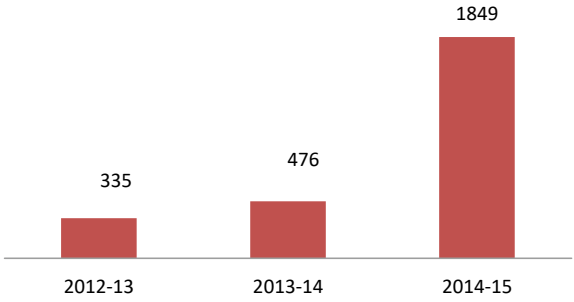

Fig. 16.2 Year-wise growth of institutions. *Source* All India council for technical education (2012–13 to 2014–15)

institutes attended by 39.05% students of J&K were in Uttar Pradesh (10). The number of general degree colleges with 10.02% of J&K students was highest in Haryana (28), followed by 19.59% students in Punjab (27), 38.11% of students in Rajasthan (21) and 12.94% of students in Uttar Pradesh (21). In aggregate terms, the highest numbers of students 18.25% were in institutions in Haryana (103), followed by 20.58% students in Punjab (87) and 14.76% students in Uttar Pradesh (73).

In the year 2014–15, Maharashtra had the highest number of engineering institutes (180) with 14.32% J&K students, followed by 14.78% in Haryana (156) and 12.48% in Karnataka (153). The highest number of medical institutes being attended by 66.67% of J&K students was in Rajasthan (7). The highest number of general degree colleges with 58.87% of J&K students under this scheme was in Uttar Pradesh (110) followed by 13.42% students in Karnataka (97), 12.26% students in Punjab (81) and 8.65% students in Haryana (59). In aggregate terms, the highest number of students 13.51% was in institutions in Uttar Pradesh followed by 12.75% students in Karnataka (251), 11.85% students in Maharashtra (238) and 12.37% of students' in Haryana (215).

Table 16.2 presents the state-wise scholarship holder during the years 2012–13 to 2014–15. The maximum number of students (37.56%) in the year 2012–13 admitted in the Haryana state followed by Uttar Pradesh 19.06% than Rajasthan 13.59%. Like this, in the year 2013–14, the maximum number of students admitted in the state of Rajasthan, i.e. 28.32% and next in Haryana 18.25% than the Uttar Pradesh 14.76%.

In the year 2014–15, total number of students was very less compared to past two years and from them maximum students admitted in the state of Uttar Pradesh, i.e. 13.51% and Karnataka 12.75% and other states shows average percent of students admission but some states like Bihar, Sikkim show very low percentage of students admitted in their states during all the three years. During the year 2014–15, AICTE allocated only two seats per college to encourage students to opt quality institutions from all over the country and prevent them from grouping at one institution. Initially, most of the students admitted through NGOs and middleman and opted neighbouring states like Haryana, Punjab, Uttar Pradesh and Rajasthan, etc.

Table 16.2 State-wise number of scholarship holders admitted during 2012–13 to 2014–15

Sl. No.	Name of the state	2012–13	2013–14	2014–15
1	Andhra Pradesh	0 (0.00)	4 (0.11)	18 (0.86)
2	Bihar	1 (0.03)	7 (0.19)	11 (0.52)
3	Chandigarh	4 (0.11)	5 (0.13)	7 (0.33)
4	Chhattisgarh	0 (0.00)	0 (0.00)	12 (0.57)
5	Delhi	37 (1.04)	35 (0.93)	72 (3.43)
6	Goa	0 (0.00)	1 (0.03)	12 (0.57)
7	Gujarat	9 (0.25)	12 (0.32)	92 (4.38)
8	Haryana	1338 (37.56)	684 (18.25)	260 (12.37)
9	Himachal Pradesh	255 (7.16)	109 (2.91)	74 (3.52)
10	Jharkhand	63 (1.77)	34 (0.91)	10 (0.48)
11	Karnataka	58 (1.63)	240 (6.41)	268 (12.75)
12	Kerala	0 (0.00)	0 (0.00)	26 (1.24)
13	Madhya Pradesh	33 (0.93)	19 (0.51)	51 (2.43)
14	Maharashtra	143 (4.01)	72 (1.92)	249 (11.85)
15	Manipur	0 (0.00)	0 (0.00)	1 (0.05)
16	Meghalaya	0 (0.00)	0 (0.00)	2 (0.10)
17	Odisha	2 (0.06)	1 (0.03)	5 (0.24)
18	Puducherry	0 (0.00)	0 (0.00)	3 (0.14)
19	Punjab	391 (10.98)	771 (20.58)	251 (11.94)
20	Rajasthan	484 (13.59)	1061 (28.32)	223 (10.61)
21	Sikkim	0 (0.00)	0 (0.00)	1 (0.05)
22	Tamil Nadu	1 (0.03)	23 (0.61)	91 (4.33)
23	Uttar Pradesh	679 (19.06)	553 (14.76)	284 (13.51)
24	Uttarakhand	45 (1.26)	112 (2.99)	54 (2.57)
25	West Bengal	19 (0.53)	4 (0.11)	25 (1.19)
All India		3562 (100.00)	374 7 (100.00)	2012 (100.00)

Source All India council for technical education (2012–13 to 2014–15)
*In the bracket percent of the students got selected shown

Impact of the Scheme

The general overview of the scheme was very useful and students and institutions stated that this scheme significantly helped them financially to pursue their studies after Class XII. A total of 89.20% said that they would not have continued their study without this scholarship. In fact, the impact of scheme was so deep that students wanted it to be extended to masters level as well. Students mentioned that they are getting the placement opportunities after completing the programme. One of the significant factors contributing to the success of the scheme is that there has been an

equal representation of all the castes from all the regions confirming that this scheme has a positive outreach to each and every caste and religion. Further, it also benefitted the students belonging to the Below Poverty Line (BPL) category families.

The institutions had a general consensus on the fact that these student beneficiaries were academically brighter than the other students. When asked whether the objectives of the scheme helped in improving access to education for J&K students besides encouraging the youth to pursue higher studies outside their native state, most of the institutions agreed. Total 84% mentioned that this scheme enhanced employment opportunities for these students.

The purpose of the scheme to generate awareness in the form of latest developments in education, prospects, and avenues available to them was well fulfilled through the scheme as the attitude of scholarship holders regarding education changed after getting this scholarship which was not known to them earlier.

Out of 703 students, 417 (59.30%) were satisfied with the scheme communicated, while 415 (59%) out of 703 students mentioned that placement opportunities were available in the college on completion of the programme. The scheme was quite helpful for the students, with 81.4% of the respondents stating that it immensely helped them financially to pursue their studies after Class XII. The respondents were of the view that the scheme is very good and should be continued. The impact of the scheme was such that respondents wanted it to be extended to Master's level as well.

About 90% of the institutions mentioned that the scheme helped in improving access to education for J&K students. They also felt that this scheme encouraged the youth of the state to pursue higher studies outside their native state, while 84% mentioned that this scheme enhanced employment opportunities for these students.

Economic Profile of Students

It has been concluded that the average size of the family has average income as the means are limited and they do not want to spend it over education and instead want it to be spent on increasing the means of production so that more wealth can be generated (KL News, 2016). But in the case of few respondents, whose family size is larger (7 and 8) with family income up to Rs. 50,000, it clearly indicates that higher the family size, the lower the income and therefore it would be impossible for them to even think of pursuing higher education.

As evident, out of 184 respondents, 59 (33.70%) have the secondary level education with income up to Rs. 50,000 and of 110 respondents, 31 (19.40%) have senior secondary level education and income of 50,000–100,000 and out of 132 respondents, 44 (39.30%) have graduated and their income is above Rs. 200,000. The data show that lower the education, the lower the income level, as a result of which they do not have the basic means for their sustenance and therefore this scholarship scheme has given them a new chance to stand in life, and become educated and successful. It also provided their lives with a new sense of direction.

Issues and Challenges for Effective Implementation of the Scheme

Inadequate Information About the Scheme

To popularize the scheme among students, both electronic and print media are used as mode of communication. The local newspapers were used as the preferred the mode of communication. In addition, conferences and workshops were conducted to disseminate information and proper understanding of the scheme regarding implementation.

The awareness level in the surveyed school among the principals was very low. They had some knowledge about the scheme, but no initiative was taken to propagate the scheme among the students. Therefore, awareness was essential for the general benefit of the student community. In the school, only four out of 252 students knew about the scheme. Two colleges, namely Women's College, M.A. Road, Srinagar, and S.P. College, Srinagar, were also surveyed for their response regarding the awareness level about the scheme. Out of 183 students in Women's College, M.A. Road, Srinagar, only six students knew about the scheme, whereas out of 100 students, only 10 were aware about the scheme in S.P. College, Srinagar. The above result reveals a very discouraging picture regarding the awareness level at school.

A total of 204 students (45.20%) out of 451 students in the rural area got to know about the scheme through the newspapers while, in terms of spreading awareness, Internet ranked second with 13.30%, followed by govt. circulars 10.90% and school authorities 4.40%. There was also the considerable number of students (about 22%), who were able to get the information about the scholarship from friends and relatives.

Lack of Inter-Departmental Coordination

The linkage process between AICTE and schools is that the information from AICTE to Higher Education Department to School Education Department to Director of Schools to Chief Education Officer (CEO) to schools at ground level. Due to the geographical location of stakeholders and establishing the communication links thereof was a major issue but no such problem was faced while dealing with AICTE and Higher Education Department of J&K.

Regional Language as a Medium of Instruction in Other States

The state has provision for seats of general degree programmes and, in fact, seats for programmes like B.B.A., B.C.A., B.A., and B.Sc. remain vacant in the state.

Students going out of J&K to pursue general degree programmes come back citing issues like regional language being the medium of instruction (KL News, 2016).

Lack of Internet Facilities in the Remote Areas

Due to lack of proper server handling, the majority of the students faced problem while applying for the scholarship as the web server were not working properly. The application procedure was slow and no proper information was available. Other issues such as the counselling centre were far and considerable financial constraints were faced in visiting these centres with abject poverty to be one of the major reasons for not attending counselling centres. Lack of easy availability of Internet centres was also a serious problem towards applying for this scheme. No college for the desired programme was available, and there was no counselling for medical programmes for the students. The scholarship procedure should be revised and college list should be prepared on the basis of merit list. More awareness should be created among students residing in remote areas. Special provisions to encourage girls should be made by providing a separate merit list and counselling centre. A major problem faced by the girl students while applying for the scheme is that of hostel facility. In the backdrop of parents' concerns, colleges to be provided for girls should be situated within J&K (KL News, 2016).

Inadequate Guidance for Getting Admission

It was found that some of the scholarship aspirants were asked for donations, while some paid money to NGOs and private counsellor. Further lack of awareness about procedures, overcrowded counselling centres, limited seats/choice of colleges and programmes, lack of information, delay in document verification, discrepancy in filled-in registration forms and institutional addresses, counselling timings, in addition to technical and financial problems.

Non-Cooperative Attitude of the Colleges/Institutions

The students faced problems while applying for admission to colleges, includes colleges asking them to pay fees and donations, chosen branch and institution not being allotted, mismanagement by the institutes, non-cooperative college administration, fund given in advance to institutes, interference of colleges, delay in receiving of scholarship and lack of awareness about the fee structure, etc. (KL News, 2016).

The problems in getting scholarship were that the beneficiaries were required to pay the fee themselves in case of delay in scholarship; certain colleges demanded

blank cheque from students; intensive document verification, the full fee not given, lack of adequate information on the disbursement of scholarship. The scholarship amount along with incidental charges was not received by the students for several successive years due to taking admission through middleman. Some of them are not eligible for the scholarship as per AICTE norms. In the event of delay in scholarships, students had to regularly visit AICTE office, and they were also threatened by the college authorities in the form of imposing fines and not allowing them to appear for exams leading to mental harassment (KL News, 2016).

The other problems that were being faced by the students were their lack of awareness about the procedures with adequate information being available to them. Some of the students complained that the wrong institution was mentioned in the AICTE web portal against their names and also original certificate/documents were not being given back by college authorities (Singh, 2016). Further, facilities at the institutions were inadequate. Apart from getting the scholarship, beneficiaries had to pay extra money to colleges annually. In addition, there was no direct contact between students and the implementing agencies.

Problems to Attend the Counselling Centres

It was found in the survey that around 54.80% respondents faced financial problems while visiting facilitation/counselling centres. Apart from financial problems the leading problems faced by the students were money paid to NGOs or private brokers in the past, far away counselling centres from their residents, did not get the college of their choice, no counselling centres were available in the past, problem faced due to floods at their place, no proper response at counselling centres, no proper guidelines available and scheme authenticity wasn't clear to them. Only 11.30% respondents felt no difficulties at the facilitation centres while merely 1.80% intimated that they have faced both financial and non-financial difficulties.

Delay in Renewal of Scholarships

A significant segment of students, i.e. 46.10%, does not know the reason for non-renewal of scholarship, while 21.30% respondents have not received the scholarship yet. Likewise, 14% had no proper information about scholarship while 8.90% faced scarcity of funds as the reason for non- renewal of scholarship. Seven percent of the students had the delay in document verification as the reason, and 1.90% was not getting the user id and password.

Problems Faced by the Implementation Agency

Problems were being faced for disbursal of scholarship amount, with institutions/students not submitting required documents in time. Further, in many cases, documents were submitted with several errors, thereby causing delay in the release of scholarship amount. It was found that more than 90% of students are from schools affiliated to the State Board of J&K. Further, students residing in remote areas of the state face problems in online submission of application as no internet facility are available in those areas. In addition, the remoteness of allotted colleges from J&K State and colleges without hostel facilities were among the disadvantages faced by girls while applying for the scholarship.

According to the guidelines of the scheme, while applying for admission to a college directly, students who have applied online on AICTE portal would also be eligible for scholarship if they have taken admission on their own to the college/universities/institutes approved under 12 B of UGC Act or recognized by AICTE and have NBA approved programmes. As the supernumerary quota is not available in medical colleges, students, who have taken admission on their own and have applied online at AICTE portal, would be eligible for the scholarship as such seats under medical stream would not be allotted through counselling. Direct disbursal of the scholarship into the bank account of the student requires its seeding with the Aadhar number.

It was also observed that students are more interested in professional programmes instead of general degree programmes. Hence, the number of seats in professional programmes like engineering and technology may be increased. Since no supernumerary seats are available in medical programmes and also students have to clear some entrance examination to qualify for admission in programmes like MBBS, BDS, etc., consequently, the number of seats in the medical stream may be reduced.

It has been observed that apart from tuition fee, students have to pay other academic fees to the institute, with tuition fee being only one component of the academic fee paid by the student. As such, the tuition fee may be renamed as academic fee and should include all types of non-refundable fees in connection with their studies being paid by the students to the institute, like examination fee, development fee, university fee, library/Internet fee, etc.

In the number of programmes under the general degree stream, the academic fee is much higher than the tuition fee of Rs. 30,000/-prescribed in the existing guidelines of the scheme, like-nursing, pharmacy, hotel management, etc. Hence, the academic fee amount for professional programmes, i.e. 4/5 years programme like B. Pharma/HMCT/B.Sc (Nursing)/integrated programme (04 or 05 year programmes) under general degree programmes, may be revised. Instead of hostel fees, books' charges, other incidental charges which are given on 'as per actual basis, a fixed allowance should be given for all categories of courses. The ceiling for this will be rupees one lakh per annum (Verma, 2012). The amount may be credited to the account of students through DBT on the quarterly basis. This will definitely reduce the students' grievances regarding short payment of scholarship. Two supernumerary

seats should be created in each of the approved programme/branches in any of the institutes instead of two students per institute, subject to a maximum ceiling of 20 students in one institution.

Problems Faced by the Institutions/Colleges

The institutions, in general, were sceptical about the fact that scholarship amount should be disbursed into students' accounts. They opined that since the institution does not charge tuition, university and hostel fees in advance; therefore, many students may not come back to clear their fees/dues when the scholarship amount is disbursed to their accounts (KL News, 2016). Concerns were also raised about final year students who leave the college after completion of the programme. In addition, they could also drop out or leave the course after receiving the scholarship amount in their bank accounts. As such, students cannot be given the responsibility of handling the scholarship amount. Further, those belonging to poor families may utilize the scholarship amount meant for their studies for meeting other needs which may lead to discontinuance of their studies. Many students may not be having bank accounts, and, therefore, timely deposit of scholarship amount to institutes by the student can be another major issue in this context.

The major problems related to the scheme included lack of awareness among the students regarding the scheme, and the misconceptions that the students had was that their full fees would be reimbursed as scholarship. Institutes reported that the untimely disbursement of the scholarship amount by AICTE was a major problem. In case of delay in receiving scholarship amount, many institutions extend the dates for fee submission while some institutions stated that they did not charge the students for fees and waited for AICTE to disburse the fees.

Timely disbursement of the scholarship amount within 3–6 months of admission as there were instances of students who had not received their scholarship even after two years of attending the institute. Some students, who happen to be already studying in the institute without having received any scholarship amount, are now declared ineligible as per AICTE records. Another issue was that of tuition fee for drop-out students not being paid along with other incidental charges that included Wi-Fi facilities, placement, book bank, generator, Internet, etc. Besides this, the amount released by the AICTE was only partial as it did not include other charges of the institution such as university charges, development fund, and exam fees, etc. In fact, in the case of one institute, AICTE deducted a part of the claim without citing any reason. The institutions were showing displeasure in limiting the number of students to 2 per institution.

Conclusion

This paper tried to analyse the various dimensions of this scholarship scheme. The scheme has a noble objective to enhance employment opportunities through increased access to higher education, there were certain pitfalls in creating awareness about the scheme to the intended beneficiaries and implementing the scheme among others. Following are some of the prominent issues and suggestions:

Initially, most of the scholarships were unutilized because of the lack of awareness about the scheme. Most of the senior secondary students in J&K, including the capital region Srinagar, were unaware of this scheme, and so they are unable to apply. So this shows that this scheme is not reaching the deserving students. Lack of awareness, as well as misconception among the students regarding the scheme, was that their fees (tuition + other academic fees) will be fully reimbursed by MHRD. Therefore, state administration should take the necessary steps to send the circulars/pamphlets to senior secondary schools. The online system of the AICTE seems to be inadequate as many students from the remote areas cannot access the Internet to fulfil the norms of uploading their applications online. The authorities concerned must make a provision for the students to submit the applications offline also in order to make it convenient.

The J&K state government and AICTE must come out with the names of the entire colleges, programmes, hostels and other facilities, grade of the institutions, list of teaching faculties and their qualifications on their web portal for making it clear to the student-aspirants, who have been trying for taking their interested programmes in good institutions. It has been observed that many of the students of the state are interested to go to their neighbouring states like Punjab, Himachal Pradesh, Haryana, Rajasthan, Uttarakhand, and Uttar Pradesh, Delhi-NCR which is convenient for them to keep-in-touch with their families.

Currently, counselling for the general and engineering programmes take place at two places, which is very inconvenient to many candidates who belong to the remote areas. It is always good to keep some more centres for counselling for making the counselling system accessible to rural and remote area students.

The private institutions/universities/colleges through NGOs admitted students in large numbers in their institutions. Students are facing a lot of problems like getting the eligibility for the scholarship, recognition of the institutions and degrees, etc. The state government should take initiative to popularize the scheme. A large number of private colleges are not updating their Websites information relating to the programmes they offer in a particular academic year. Some of the colleges are seemed to be discontinuing the programmes before the completion of the programmes that is, within two-to-three years. So, some of the meritorious students may have to lose a year or two. It has been observed that either UGC or AICTE has to take necessary steps to streamline the total number of programmes of a particular college and ensure that no programme is discontinued in the middle so that every student gets the chance to complete the programme regularly. Some of the private institutions are not showing much interest to merely admit two students and DBT to students bank

account as per the new guidelines of MHRD because that will not ensure adequate strength of the class as was the case previously when students admitted in good numbers in these institutions.

Many of the colleges and universities coming under the purview of UGC are not aware of the scheme and they do not entertain the students selected by AICTE. Besides this, certain institutes have their own selection criteria which are different from that of AICTE guidelines for these scholarship holders. Thus, students are not getting admission and losing their academic year as well.

The State has provision for seats of general degree programmes but seats for courses like BBA, BCA, B.A and B.Sc. remain vacant in the state as students going out of J&K to pursue general degree courses come back citing issues like regional language being the medium of instruction (KL News, 2016). Therefore, the allocation of scholarships for engineering students must be more than the general students as students who prefer to study outside the state choose for engineering, medicine, and other professional programmes rather than the general programmes. The amount of the scholarship also may be bifurcated between these two groups for justification so that all students may be compensated with the right ratio. Still, engineering students may be preferred slightly more than the others and the state government must conduct an entrance examination for the fellowship aspirants before issuing the eligibility of receiving the scholarship.

Recent changes have been made in the scholarship disbursal to students' accounts in the form of Direct Benefit Transfer which the institutions are disapproving, thus, discouraging admission to those poor students who could not pay fees. Delay in the payment of scholarship amount is a major concern for the institutions admitting students under the scheme. A lot of money has not been paid to the institutions.

There is no separate grievance cell with all facilities for the implementation of this scheme available in any of the government department, particularly in the department of education. For the betterment of the students, grievance cells may be created at AICTE, Leh, Jammu and Srinagar. The implementing agency may strengthen the monitoring system to resolve the issues with the institutions and students. All issues related with this scholarship must be sorted out in association with the students, colleges and AICTE/UGC, and the state government may have to take leading proactive role for the smooth implementation and functioning of the scheme for the betterment of the students of J&K.

Late disbursement of scholarship to students via institutions resulted in the demand for money by the institutions from students thereby leading to mental harassment of students. On the other hand, late disbursement of scholarship amount to institutions resulted into incurring of heavy loss by the institutions which borne not only the tuition fee, hostel and incidental charges of these scholarship holders but also other academic fees (examination fee, development fees, university fees, library/Internet fee as part of the academic fee of the institution) which sometimes even exceeded the scholarship amount prescribed by the MHRD guidelines. Tuition fee for drop-out students in certain cases was not even paid.

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