

“TO EXAMINE THE COST OF PROFESSIONAL EDUCATION AND FINANCING PRACTICES ADOPTED BY PROFESSIONAL STUDENTS IN AGRA, COMPARING IT AT GLOBAL PLATFORM”

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Abstract

The main objective of the present study is to examine the cost of professional education and financing practices adopted by students in Agra. The study has examined education costs and related issues among several professional courses and colleges in Agra in a comparative perspective. An attempt has also been made to highlight the practical problems faced in recovering the costs of professional higher education in the city.

From the study, it becomes clear that the practices related to fees and funds, recovery of costs, salary of the staff and above all, financing practices demand serious attention of the administrators of education. The administrators should also pay attention towards finding out solutions about recovery of costs from students. Global trends in higher education across the world in countries like Belgium, Netherlands, Sweden, Denmark are towards making it free for reach of everyone but in our country, it is still not in the hands of more than 50% of the population, and hence, the doors of higher education are not open for them. Wherever financing options are available, they are bridging the gap of need and access but then the costs of borrowing are completely passed on to students. Such ways and means are socially hazardous step, and ultimately, it will turn out to be a phenomenon not conducive to the economic growth of city. It is also held that as is the practice in advanced countries, the recoveries from the students is not more than 20-25 per cent of the recurring cost. The institutions/governments bear 75-80 per cent of the recurring cost. The operation of unbridled market forces has generated a direct conflict between cost recoveries and affordability of professional higher education in the city. The level of fees and funds is very high in different trades/courses in the professional higher education. The private institutes providing professional higher education have been found to be generating huge economic surpluses, i.e. receipts were found to be much more than that of costs. Thus, keeping in view, the high cost recovery from professional education, there is a dire necessity to establish an independent regulatory commission with statutory powers and public accountability to determine, control and monitor the fees and funds charged from the students along with the payment of salary to the teaching and nonteaching staff. The city, being known for tourist inclination, has the capacity to become choice destination of higher education, provided special mechanism are needed to be evolved to attract students along with tourists and to raise the participation of poor but meritorious students and students belonged to the weaker section of the society in professional higher education.

Introduction

An academic revolution has taken place in higher education in the past half century marked by transformations unprecedented in scope and diversity. Comprehending this ongoing and dynamic process while being in the midst of it is not an easy task. The academic changes of the late 20th and early 21st centuries are more extensive due to their global nature and the number of institutions and people they affect. (UNESCO report, 2009)

The ways in which higher education has responded to the challenge of massification. The "logic" of massification is inevitable and includes greater social mobility for a growing segment of

the population, new patterns of funding higher education, increasingly diversified higher education systems in most countries, generally an overall lowering of academic standards, and other tendencies.

Globalization, a key reality in the 21st century, has already profoundly influenced higher education. Globalization is defined as the reality shaped by an increasingly integrated world economy, new information and communications technology (ICT), the emergence of an international knowledge network, the role of the English language, and other forces beyond the control of academic institutions (Wikipedia).

Internationalization is defined as the variety of policies and programs that universities and governments implement to respond to globalization. These typically include sending students to study abroad, setting up a branch campus overseas, or engaging in some type of inter-institutional partnership (Wikipedia).

Universities have always been affected by international trends and to a certain degree operated within a broader international community of academic institutions, scholars, and research. Yet, 21st century realities have magnified the importance of the global context. The rise of English as the dominant language of scientific communication is unprecedented since Latin dominated the academy in medieval Europe. Information and communications technologies have created a universal means of instantaneous contact and simplified scientific communication. At the same time, these changes have helped to concentrate ownership of publishers, databases, and other key resources in the hands of the strongest universities and some multinational companies, located almost exclusively in the developed world. For some the impact of globalization on higher education offers exciting new opportunities for study and research no longer limited by national boundaries. For others the trend represents an assault on national culture and autonomy. It is undoubtedly both. At the very least, with 2.5 million students, countless scholars, degrees and universities moving about the globe freely there is a pressing need for international cooperation and agreements. But agreements on, for example, international benchmarks and standards to properly evaluate unfamiliar foreign qualifications are not reached easily (Understanding India - the future of higher education and opportunities for international cooperation).

The demand for higher education and the magnitude of planned reforms over the next ten years in India will provide the largest opportunity in the world for international higher education institutions and education businesses.

Higher Education in India: The Context for Change

The Indian higher education system is facing an unprecedented transformation in the coming decade. This transformation is being driven by economic and demographic change: by 2020, India will be the world's third largest economy, with a correspondingly rapid growth in the size of its middle classes. Currently, over 50% of India's population is under 25 years old; by 2020 India will outpace China as the country with the largest tertiary-age population. Despite significant progress over the last ten years, Indian higher education is faced with four broad challenges:

The demand-supply gap: India has a low rate of enrolment in higher education, at only 18%, compared with 26% in China and 36% in Brazil. There is enormous unmet demand for higher

education. By 2020, the Indian government aims to achieve 30% gross enrolment, which will mean providing 40 million university places, an increase of 14 million in six years.

The low quality of teaching and learning: The system is beset by issues of quality in many of its institutions: a chronic shortage of faculty, poor quality teaching, outdated and rigid curricula and pedagogy, lack of accountability and quality assurance and separation of research and teaching.

Constraints on research capacity and innovation: With a very low level of PhD enrolment, India does not have enough high quality researchers; there are few opportunities for interdisciplinary and multidisciplinary working, lack of early stage research experience; a weak ecosystem for innovation, and low levels of industry engagement.

Uneven growth and access to opportunity: Socially, India remains highly divided; access to higher education is uneven with multidimensional inequalities in enrolment across population groups and geographies.

The three central pillars of the government's plans for education reflect these realities: expansion, equity and excellence. Over the next five years, every aspect of higher education is being reorganised and remodelled: funding, leadership and management, quality assurance, accountability, relationships with industry, international collaboration and the way teaching and research are conducted. Emphasis will be placed on strengthening existing institutions. In arguably the biggest reform in the governance and funding of City universities, an ambitious programme is underway to devolve authority and budgets for higher education.

https://www.britishcouncil.in/sites/default/files/understanding_india.pdf).

Financing of Higher Education in India: Approaches and Perspectives

A perusal of the benefits of higher education – individual and societal – shows that a country's higher education, if properly planned and supported, will certainly improve the living conditions of human beings (Sheehan, 1973). Recent developments in the economic theory of financing education services demonstrate that the public funds could significantly affect the scale, content and character of City higher education delivery system. Across all advanced countries of the world, higher education sector is largely being financed out of the City funds, i.e. tax payers 'money. Even, in those countries, where the higher education is not publicly provided, it is subsidized to a great extent by the City (Blaug and Woodhall, 1979; OECD,1998; and Tilak, 1993; 1997). Among the world countries, total public expenditure allocated to entire education sector as a proportion of the GDP climbed up from 3.7 per cent to 5.2 per cent between 1981 and 2001. Further, federal expenditure incurred on the higher education sector as a proportion to the GDP almost doubled from 0.4per cent to 0.7 per cent, going from US\$ 1.4 billion to US \$ 3.9 billion during thesame period (World Education Report, 2000).

The major source of financing of higher education in India, excluding foreign aid, can be classified as follows: (a) government sector that includes the central, City and local governments; (b) non-government sector that comprises of private trusts/societies/entrepreneurs and student/parents (families), for example, through fee and other maintenance expenditure; and (c) community participation at large, for example, through the charity/donations and endowments. Further, in India, it is the City government that met more than one half of the total expenditure on

higher education and central government hardly met more than one-fifth of the total allocations (Chitnis and Philips, 1993).

At present, City governments are unable to maintain the present level of public grants/subsidies to the higher education, what to speak of raising it significantly, unless additional resources are generated through the conventional and non-conventional methods. Indeed, there is an urgent need for mobilization of additional resources for higher professional education out of government tax revenue, and non-governmental sources. One method that is often suggested regarding mobilization of extra resources is through the additional and specific taxes like the graduate tax, education cess, etc. The non-government sector contributes to higher professional education in a variety of ways, such as household expenditure in the form of fees and funds, books and stationary, student loans and voluntary contributions.

Need of Study

An assessment of these issues related to the higher education, of which higher professional education is most important part, makes it clear that under the new economic dispensation, the whole gamut of perceiving, planning and delivering higher education and more so the professional one has changed cataclysmically in India (Ghuman, Singh and Brar, 2006; 2009). Indeed, the higher education sector has become more professional in the management albeit a market directed and profit driven. The City of Agra too has witnessed many drastic changes in this direction.

The higher education sector in the City has grown too much, particularly in the domain of private sector. In 2005-06, there were two universities and 10 colleges/institutes that provide general and professional education in Agra. Among 10 colleges/institutes, 3 colleges/institutes were providing general higher education and 7 colleges/institutes were providing professional higher education in the City. Out of 7 professional colleges/institutes; 1Ayurvedic and 1Nursing colleges/institutes were affiliated to Agra university. Another set of colleges (50 per cent) are owned and financed directly by the private sector entirely from the promoters' own and/or borrowed funds and run mainly on the basis of fees and funds generated from the students. The role of private sector in financing professional higher education in Agra has been much more compared to the general education (Ghuman, Singh and Brar, 2005; 2009).

Since the professional higher education produces high quality human resources, therefore, this education process involves huge amount of resources. It requires extremely a measured cost management response during all stages of input utilizations. Actually, public grants/subsidies, wholly or partly, lower the costs of higher education in many countries, including market-based economies. In Agra or elsewhere, the fundamental way of financing higher professional education is the public funds in the form of grants/subsidies. These grants/subsidies can be in implicit form (concessions in land prices or tax exemptions) and explicit form (scholarships, recurring/non-recurring grants, etc.). These grants/subsidies aim at reducing the price of higher professional education so that it can be affordable to larger section of the society.

Earlier, there were periodic upward revisions, although limited, of number of aided colleges/teaching posts in them for government grants-in-aid. Recently, self-financing unaided institutions are being established in the City in a big way. Such institutions have not only fully financed their costs (both recurring and non-recurring costs) from fees and funds, but also made it a lucrative business. A large numbers of private individuals, (industrialists, businessmen, NRIs, etc.) under the grab of societies/trust are entering into the education business day-in and day-out

with profit motives. They charged hefty tuition fee and funds, paid an extremely low salary to teaching and supporting staff, working without any norm to ensure quality, and no social obligations towards the poor students (Ghuman, Singh and Brar, 2005).

Existence of such high cost and multiple delivery mechanism in the City's professional higher education has generated a debate and also drawn a considerable research attention among policy makers. These issues call for a thorough probe into professional education to develop basic insights into its actual cost, financing pattern and performance. Research evidence on costs/financing of professional education in Agra is very scarce. A few research studies have been carried out to measure the recurring cost, private cost and social cost, but in the case of measuring capital costs and financing practices adopted by the students or their parents, there is strong lack of research studies. In the absence of such studies, no foolproof as well as scientific method is being adopted to determine fees and funds to be charged from students. An escalation in the fees and funds paid by the students to train themselves in the professional education courses has already excluded the students from marginal sections of society and rural areas. The present study makes a modest attempt to measure the unit cost of professional education and financing practices adopted by them or their parents. The significance of the study is, therefore, obvious.

Literature Review

Total Cost vs. Unit Cost of Education

Total cost of education is simple to define and calculate. It is the total of current plus capital cost of an educational enterprise at a given period of time (Coomb, 1972). In simple words, it is the sum of all fixed costs and all variable costs (Tilak, 1995). Unit cost is the most important aspect of education. Unit cost is most often expressed in terms of per student enrolled, but for some purposes, it is useful to calculate unit cost per student graduated (Coomb, 1972). The cost per student is obtained by dividing the total direct expenditure of a particular institution by the number of students enrolled (Garg, 1986). Unit cost is defined as the cost of an educational unit. In economic analysis, unit cost of a good or service represent the ratio between the cost of (production, sale or purchase) of a given quantity of goods or services and the quantity expressed as number of units. The same applies to the education enterprise. In other words, unit cost means cost per unit of output or average cost (Gern, 1967). Unit cost is defined here in terms of real resources used upin the production of human capital (Pandit, 1972). Thus, the unit cost of education means cost per unit, i.e. per student, per graduate, per credit, etc. Unit cost refers to the unit of output, i.e. successful learner or graduate. This is called effective cost of education. This type of cost calculation takes care of wastages in the education. The difference between the effective costs and normal costs of education reveal the efficiency of the given level of education system (Ford Foundation, 1971).

The financing of higher education in India fits well in the overall development strategy and economic policy of the country at that time. India's higher education sector evolved and grew with the strong support of pubic funds during the period called Nehruvian model of development. By and large, this model of development was applied across all the Indian Cities. In fact, governments owned, established and operated educational institutions everywhere. These institutes were funded by the government and charged very nil or low fees and funds from the students. The scenario charged drastically during the last about a decade and half. As a result, the whole gamut of

financing higher education has changed in India which gave a central role for the private sector. Indeed, it has happened under the nose of new economic policy initiated since the 1990s. Numerous studies are available about the financing of education in the country both during the pre- and post-reforms periods. In the past, Pillai and Nair (1962) made an attempt to study the history and problems of educational finance in Kerala City. To solve the problem of financing education, the study suggested that additional public resources should be generated on large scale in order to finance the continuously rising demands for the education in the City at all levels. Even, the Education Commission (1964-66) strongly argued for devoting 6 per cent of GNP to the education financing by taking into account numerous parameters like cost of education, teacher-student ratio, educational requirements of the country and financing policies adopted in other countries. It further recommended that some proportion of it be made available to the higher education on a continue basis.

Dutt (1969) measures the source of financing of 28 colleges of Haryana which includes four City colleges and 24 private colleges categorized under three headings as the City colleges, private women colleges and other private colleges. The various sources of financing of higher education was found to be: (i) fee income; (ii) government grants (City, UGC, and local bodies); (iii) other sources (fines, sale of prospectus, etc.); and (iv) funds given by the governing bodies. In all colleges, sources of income were very much different. In the City colleges, the main contributor was the City government, the private women colleges depend mainly upon City grants-in-aids, and other private colleges depends upon the fees and funds and the UGC grants, if any. After the government grants, among the private sources, the major contributor was fees and funds paid by the students. Jha (1974), while studying the financial behavior of the Patna University, concluded that government grants is the main source of finance. The study also noted that in 1964-65, the City government was itself faced a deficit of funds due to the lack weak tax collections. This situation reduced the flow of funds to the coffers of university. Even, it was noticed that the finance committee failed to function properly due to the lack of financial rules. Nigam (1975) examined the main source of finance of University of Rajasthan and their relative importance. The study also deals with the steadiness and adequacy of the finances, expenditure incurred under different heads, and difficulties faced by the university due to lack of finance. The study found that per capita availability of educational facilities, in real terms, does not fall either due to rise in enrollment ratio or inflation which affects the facilities of the supply of laboratories or libraries. It recommended the creation of City level body like the UGC to settle financial issues in order to stabilize per capita educational facilities in real terms.

Mathur (1974), in his study on Kerala University during 1970-71, found that the receipts from examination, which was initially a source of income, later became a major item of heavy expenditure of the university. The expenditure on science departments was nearly double than that of the funds spent on the humanities. The expenditure on administration head alone was 19 per cent in 1970-71. And, over the time period, overall expenditure of university increased by 17 per cent per year. Nanjundappa (1975) described the Karnataka University's finances with special reference to growth of revenue and behavior of various revenue components during 1972-73. It was found that the City government financed up to 54 per cent, and income from fees and funds collected from students contributed up to 35 per cent. Moreover, per capita expenditure of City on

education was just Rs. 80 in 1949-50 and rose to Rs. 3,306 in 1972-73. At the university level, there was enormous increase in the expenditure, especially in the academic departments, but still the grants of teaching staff were only 13 per cent.

Panchmukhi (1975), after making a careful study of the analysis of category wise expenditure and various sources of financing of higher education, found that students' fees and funds was the major source of financing, although its proportion was continuously decreasing with the increase in the government's contribution to higher education. It also recommended that government should minimize their role in financing except the necessary, i.e. only for the students belonged to under-privileged classes. And to cover the cost of education, he suggested that fee rates should be fairly high.

Nanjundappa (1976) reported a continuously rising gap between the cost of higher education and fees charged in Karnataka University. In order to eliminate this gap, he suggested that (i) City grants must be increased to the higher education; (ii) arise in fees and funds from beneficiaries; (iii) introduction of indirect methods of financing such as student loans which would be beneficial for both students as well as society. Mukerjee' study (1976) made an attempt to throw the light on the pattern of income and expenditure of the Calcutta University. He found that the administrative expenditures of the Calcutta University alone constituted about 30 per cent between 1948-49 and 1969-70. The salaries to teachers cornered between 13.12 per cent and 18.76 per cent of expenditure. The study views that raising trust and endowments funds to finance university expenditure is the best option in the long run to sustain finances. Mathew (1980) showed a detailed analysis of the receipts and expenditures of Kerala University for the year 1974-45. Out of total revenue of Rs. 192.2 lakh, Rs.95.5 lakh (50 per cent) were accounted by the examination fee and Rs. 80.8 lakh (42 per cent) by the public grants. Further, the bulk of public grants (80 per cent) came from the City government. Out of total expenditure of Rs. 229.1 lakh (25.6 per cent) incurred on the general administration, Rs. 53.1 lakh (32.2 per cent) on the examination work and Rs. 42.1 lakh (18.3 per cent) in the departments for study and research. Faculty-wise, the humanities spent, on the average, Rs 1.3 lakh per department and science departments Rs. 2.7 lakh.

Subrahmanyam (1982), in case of financing pattern of the Andhra University, found that its major sources of income (60 per cent) were the internal sources. However, across the non-academic income sources, major contributors were the press, publications, and interest on corpus fund. Further, the results show that on expenditure side, major proportion of funds was consumed by the teaching departments (40 per cent to 69 per cent). It was further noticed that there exists larger differences in the non-tuition components of cost on per-pupil basis (general administration, 20 per cent to 30 per cent; library, 2.58 per cent to 9.12 per cent) rather than in the tuition cost among the students belonging to the different income stratas of the society.

The study carried out by Sharma (1992) pointed out the major sources of funding of university education in India. These sources are: the central government, the City governments, the University Grants Commission (UGC.), the Indian Council of Agriculture Research (ICAR) and other public and private agencies. The funds are in the form of grants-in-aid, development assistance from the UGC and ICAR, fees and funds, income from moveable and immovable property, and sale of university publications and farm produce. The endowment funds were the sources of finance of university institutions. Further, grants-in-aid made by the central, City and other authorities to an

institution to run their activities in order to improve them and to start new programme for further development and growth. These grants were given to the university institution in the form of (i) matching share of development grant by UGC;(ii) grants in the form of committed expenditure under the non-plan heads by either of the system, namely, the deficit grants or block grants.

Punnayya Committee (1993) provided many diversified and new ways of funding of universities in the country. For instance, it recommended: (i) maintenance grants, dearness allowance, etc., to be provided by the government; (ii) subsidies on many items of the maintenance grants to be reduced and maintenance grants to be stabilized at a certain acceptable level; (iii) maintenance grants to be based on unit costs; (iv) universities to mobilize funds – at least 15 per cent of the total recurring expenditure at the end of the first five years and 25 per cent at the end of next ten years; (v) creation of corpus funds to meet infrastructure development; (vi) increase in student fee keeping in view the rate of inflation; (vii) scholarships to at least 20 percent of students; and (viii) soft loans and scholarships from the nationalized banks.

Swaminadhan Committee (AICTE, 1994) looked into the possibilities of resource mobilization in the case of technical education, essentially through cost recovery modes either from students or from elsewhere. The Committee's recommendation includes: (i) the creation of corpus funds in the institutions; (ii) establishment of an Educational Development Bank of India (EDBI) with an initial capital of Rs 3000 crore; (iii) reducing the share of salaries in the recurring expenditure from the present level of 80 per cent to 60 per cent; and (iv) enhancing fees to recover at least 20 per cent of the recurring expenditure.

Natrajan (1995) analyzed the source of finance of university education and also the use of funds. The analysis shows that the major sources of finance of universities were the government grants, followed by fee income, and other sources. Development grants were found to be spending both on capital and recurring items. Academic costs absorbed the major proportion of total expenditure of the university. Among academic fee income, examination related work entails major proportion of total expenditure. At the same time, income from the endowments is decreasing. The study provides the purpose-wise classification of income of the universities and suggests ways and means to overcome the shortage of finance.

The research done by Dutt (1995), while estimating the various source of financing of higher education for the period 1960-61 to 1976-77, shows that the government funds (central, City, UGC, etc.) was the major source of finance. These funds constituted 75 per cent of the total cost per student, followed by 13 per cent by the fees. However, endowments and other sources cornered low share of 12 per cent. Further, source-wise income per student at the university level, subsidy to education at various levels, and recovery rates at different level of education has also been evaluated. The analysis of 12 colleges of Delhi University shows that fee accounted for only 5 per cent of total cost per student and the balance of 95 per cent was contributed by the government/UGC and some receipts from the private trusts. The subsidy per student was estimated to be equal to Rs.4, 744.

Salim (1997) enquired about the extent of government subsidization of higher education in Kerala City with special reference to students' socio-economic background. He found that all students, particularly the PG engineering students, received a considerable amount of money by way of subsidies. The overwhelming burden of financing of higher education has fallen on the City

government, which is gradually taking up the role that the fees had played earlier. Interestingly, government subsidization is high in the case of technical education. The burden of government has been increasing year after year. And, no successful attempt has been made by the government to enhance the tuition fees or to tap additional resources for financing the mounting expenditure on higher education. Pylee Committee (UGC, 1997) also advocated the cost recovery by suitably revising, rationalizing and enhancing tuition fees in order to make the institutions more sustainable in terms of financing.

Tilak (1997) analyzed the pattern of financing of education in India during the last 50 years since independence. It also examined the trends of public expenditure and resource allocation at different levels of education.

Dandekar (2003) held that the process of reform of higher education went against the judgment given by the Supreme Court which Citys that education should be free to all. Showing disagreement with judgment, he points out that education cannot be given free to everybody and suggests that full public cost should be re-covered from beneficiaries. The study did not deny the problem of inequalities of income but the remedy is not to make higher education free or highly subsidized. For this, long-term loan could be the best remedy to cover the cost of education at any college or university.

Regarding funding of higher education in India, Kumar's study (2004) observed that major source of financing of private cost is the income of households(wages and salaries, agricultural income, income from business, interest, dividends, etc.) and other sources such as the scholarships and loans. On the other hand, CABE (2005) argued that the governments – union and the City – must make a firm commitment to sustain funding of higher education institutions in such a way that basic teaching, research and extension activities are not affected in terms of their quality and quantum due to paucity of financial resources. The City funding for higher education out of tax and non-tax revenues should be the only sustainable way of financing higher and technical education in India.

Tilak (2004a) found that public subsidization of many social and economic services is a common feature of most countries of the world. But, with increasingly budgetary constraints, many have started raising questions on the rationale of government subsidies to higher education. The study shows that all level of education are important and they are dependent upon each other. It may not be logical to withdraw subsidies from one level of education and allocate in favour of the other, as all level of education in India are severely under-financed. Regarding the recent trends in public expenditure on education during 1990's, the study found that public expenditure on education has declined from above 4 per cent of income in the late 1980s to 3.6 per cent in the late 1990s. Higher education suffered more severely in terms of public expenditure. Per student public expenditure had declined nearly by 25 per cent. Thus, on the whole, elementary education is nearly totally financed by the City. The government subsidies in higher education are being reduced as many universities are experimenting with the cost recovery measures, generating resources from student fees, and other non-government sources. The study also estimates the rates of subsidy and the cost recovery. It provides the distribution of some specific subsidies in education such as free education, fee exemptions, text books, noon meals, etc. Some of the important issue on, for example, the size of the subsidy, targeting vsuniversalism and method of cost recovery are also

briefly discussed. It has been shown that the levels of subsidies to education sector in India are not very high, nor is the rate of cost recovery. It has also been found that some of the specific subsidies in education are fairly progressively distributed.

A recent report of the UGC (2005) shows that in the UK, higher education is primarily in the public sector or financed through the public grants. Faced with problems of deteriorating standard due to inadequacy of funds and failing accountability, a number of innovative ways in financing of higher education, such as the performance-based funding for teaching and research, portable students' aid, etc., were introduced during the last decade. This has helped the UK higher education to gain its place as one of the best systems of higher education in the world. In a politically sensitive and tough decision, the UK government has now allowed the universities to compete for students and charge variable fees. It results in the end to the regulated fee regime in the UK.

Varghese (2005), in his paper, on reforming the education financing points out that Indian government finds it difficult to cope with the ever increasing financial requirements of an expanding system. For this, the study suggested two major propositions: (i) improving efficiency in the functioning of the public institutions on the one hand; and (ii) mobilizing resources from non-governmental sources on the other. It is held that the country needs to invest more resources both at primary and tertiary levels of education. Ultimately, these reforms lead to the shifting of the burden of cost from the public to private and household domains.

Objectives of Study

The main objective of the present study is to examine the cost of professional education and financing practices adopted by students in Agra. An attempt has also been made to highlight the practical problems faced in repaying the costs of professional higher education in the City. The specific objectives of the study are:

1. To analyze the various components of costs of professional education in the City;
2. To study the source of finance and the financing practices adopted by the students to finance the fee and other charges of professional education; and
3. To compare the cost considerations at global level and make policy recommendations with regard to costs and funding of professional education in the City.

Research Methodology

The first objective of analyzing the various components of costs of professional education in the City was accomplished through secondary data. The second objective of studying the source of finance was achieved through secondary data but to explore the financing practices adopted by the students to finance the fee and other charges of professional education; and the last objective was to compare it at global level and make policy recommendations with regard to costs and funding of professional education in the City is based on secondary data.

Research Design

The research design is primarily descriptive in nature along with exploratory research in the beginning to clear the concepts and practices related to professional higher education and funding sources.

Testing of Hypotheses

Keeping in view the objectives of study, the following hypotheses were tested:

1. There is no relationship between cost of higher education and quality of result.
2. The students depend primarily upon the parents to finance their education there is no significant difference between two versions.
3. The professional institutions are passing all their costs to students, there is no significant difference between two opinions.

Data Sources

The study is primarily based upon the primary data. However, the secondary data sources were also assessed wherever needed. The secondary data were gathered from the published (annually and periodically) and unpublished sources. Major published sources of data were various issues of the Statistical Abstract of India, Statistical Abstract of Agra, Economic Survey of India, Economic Survey of Agra, Analysis of Budget Expenditure of India, Budgetary Documents of Higher Education in India, population Census Reports, Social Statistics of Agra and many research studies/reports.

The primary data were collected from the colleges/institutes providing higher professional education courses in Agra and students studying in these sampled colleges/institutes. A stratified random sampling technique was adopted to select the sample units (colleges/institutes). For this, all professional higher education colleges/institutes in Agra were stratified at four levels: age of the institution, ownership, location and affiliation. From each stratum, one college/institute was chosen on the basis of proportion probability sampling. Further, from the selected college/institute, students were selected by applying proportion probability sampling technique from each course/class. The required information gathered through two well-structured schedules first for selected institutions to examine the level and structure of costs of providing professional education (Appendix, A) and second for chosen students to assess financing practices adopted by the students or their parents (Appendix, B). There were 4 main universities of Agra-Dayalbagh Educational Institute (deemed to be university), Ambedkar University and colleges affiliated to AKTU (Dr Abdul Kalam Technical University) and a private university-GLA of Mathura. And, it was decided to carry a survey of more than 15 per cent of colleges/institutes affiliated to these four universities of Agra and more than 2.5 per cent of students studying in the different courses of the sampled colleges/institutes.

Sampled Students

General Profile

An assessment of general profile of students is very necessary to analyze the preferences of students or parents in exercising their choice of a particular course and its availability. Out of total 553 sampled students, the proportion of Engineering students was 232 (42.74 per cent), followed by Management students 147 (28.75 per cent); Pharma students 19 (3.43 per cent); Architect Students 18 (3.02 percent) and MCA students

Table 1

GENERAL PROFILE				
		MALES	FEMALES	TOTAL
ENGINEERING		232	110	342
MANAGEMENT		69	78	147
PHARMACY		11	8	19
ARCHITECTURE		8	10	18
MCA		7	8	15
B.ED		1	11	12
		328	225	553

15 (3.07 percent). Gender preference in some courses, for instance, the B.ED (12) course had the highest percentage of female students (92.65 per cent), followed by the Engineering course by males (82.35 per cent); Pharmacy course (73.33per cent. In the MBA/MCA courses, more than three-fifth of students (63.64 per cent) were females represented in Table-1.

Social Profile

Regarding the social profile of professional education students, it is clear that out of 553 sampled students (Table 2), more than 90 % of students (457 students; 90.61 per cent) belonged to the Hindu religion, followed by Sikh religion (17 students; 3.07 per cent); Christian religion (19 students; 2.48 per cent); Muslims (21 student: 3.79 per cent) AND Dalits (21 students, 3.7%). In fact, the religion - wise distribution of sampled students is largely in consonance with the religious composition of population of Agra..The castes of sampled students were divided into three broad categories such as the high castes, middle castes and low castes. Due care was also given to demarcate the castes of students belonging to other Cities.

Findings

The end sums up the principal findings of the study along with the policy implications which emerge from the analysis. It describes the growth of higher education both the general and professional, socio-economic characteristics of the sampled students and institutes, cost structure of professional education, private cost of education, sources of financing by students and institutions, and cost recovery by the professional institutes of the state. An attempt has been made to explain the basic issues and concerns with suitable contextual back up to enhance its social and policy relevance. Sampling, average, ratio and proportionate techniques have been used to calculate cost and financing levels and structure of unit cost of the professional education in Agra-Mathura. The various estimates of costs were based on the data gathered through the primary and secondary sources. For the primary survey, two types of schedules have been used, one for the institutions and another for the students. And, for analysis purposes, 4 colleges/institutes belonging to the various trades/courses and 553 students enrolled in the colleges/institutes were selected by

Table 2

SOCIAL PROFILE		
HINDU	457	82.64
SIKH	17	3.07
MUSLIM	21	3.80
CHRISTIAN	19	3.44
DALIT	39	7.05
	553	100.00

AVERAGE ANNUAL EXPENDITURE OF STUDENTS IN COURSES AFFILIATED TO AKTU										
(FIGURES IN RUPEES APPROXIMATELY PER YEAR)										
COURSES		FEES FUNDS	BOOKS/ STATIONARY PHOTOCOPY	CLOTHES/ UNIFORM	MOBILE/ TELEPHONE	CANTEEN	OTHERS	TOTAL		
ENGINEERING	GLA	80,000	10,000	5,000	12,000	12,000	10,000	129,000		
	AKTU	62.016	7.752	3.876	9.302	9.302	7.752	100,000		
	DBM	10000	4000	2000	8000	3000	5000	32000		
	ED	31.25	12.50	6.25	25.00	9.38	15.63	100.00		
	UNV	30000	10000	2000	8000	3000	8000	61000		
	AR	49.18	16.39	3.28	13.11	4.92	13.11	100.00		
	UNV	96000	7000	5000	10000	6000	6000	130000		
	GLA	73.85	5.38	3.85	7.69	4.62	4.62	100.00		
	AKTU	82,000	8,000	5,000	15,000	11,000	10,000	131,000		
	DBM	62.60	6.11	3.82	11.45	8.40	7.63	100.00		
	ED	7000	5000	2000	10000	5000	5000	34000		
	UNV	20.59	14.71	5.88	29.41	14.71	14.71	100.00		
MBA	GLA	50000	10000	2000	8000	3000	8000	81000		
	AKTU	61.73	12.35	2.47	9.88	3.70	9.88	100.00		
	DBM	110000	7000	5000	10000	6000	6000	144000		
	ED	72,000	10,000	5,000	10,000	8,000	5,000	110,000		
	UNV	65.45	9.09	4.55	9.09	7.27	4.55	100.00		
	UNV	10000	4000	2000	8000	3000	5000	32000		
	AR	31.25	12.50	6.25	25.00	9.38	15.63	100.00		
	UNV	30000	10000	2000	8000	3000	8000	61000		
	AR	49.18	16.39	3.28	13.11	4.92	13.11	100.00		
	UNV	96000	7000	5000	10000	6000	6000	130000		
	GLA	73.85	5.38	3.85	7.69	4.62	4.62	100.00		
	MCA	GLA	66,000	12,000	5,000	8,000	7,000	5,000	103,000	
AKTU		64.08	11.65	4.85	7.77	6.80	4.85	100.00		
DBM		6900	4000	2000	8000	3000	5000	28000		
ED		21.43	14.29	7.14	28.57	10.71	17.86	100.00		
UNV		40000	10000	2000	8000	3000	8000	71000		
AR		56.34	14.08	2.82	11.27	4.23	11.27	100.00		
UNV		86000	7000	5000	10000	6000	6000	120000		
GLA		71.47	5.83	4.17	8.33	5.00	5.00	100.00		
AKTU		54,000	10,500	5,000	10,000	9,000	10,000	98,500		
DBM		54.82	10.66	5.08	10.15	9.14	10.15	100.00		
ED		10000	4000	2000	8000	3000	5000	32000		
UNV		31.25	12.50	6.25	25.00	9.38	15.63	100.00		
PHARMACY	GLA	30000	10000	2000	8000	3000	8000	61000		
	AKTU	49.18	16.39	3.28	13.11	4.92	13.11	100.00		
	DBM	96000	7000	5000	10000	6000	6000	130000		
	ED	73.85	5.38	3.85	7.69	4.62	4.62	100.00		
	UNV	66,000	12,000	5,000	8,000	7,000	5,000	103,000		
	AR	64.08	11.65	4.85	7.77	6.80	4.85	100.00		
	UNV	6900	4000	2000	8000	3000	5000	28000		
	AR	21.43	14.29	7.14	28.57	10.71	17.86	100.00		
	UNV	40000	10000	2000	8000	3000	8000	71000		
	AR	56.34	14.08	2.82	11.27	4.23	11.27	100.00		
	UNV	86000	7000	5000	10000	6000	6000	120000		
	GLA	71.47	5.83	4.17	8.33	5.00	5.00	100.00		
ARCHITECTURE	GLA	54,000	10,500	5,000	10,000	9,000	10,000	98,500		
	AKTU	54.82	10.66	5.08	10.15	9.14	10.15	100.00		
	DBM	10000	4000	2000	8000	3000	5000	32000		
	ED	31.25	12.50	6.25	25.00	9.38	15.63	100.00		
	UNV	30000	10000	2000	8000	3000	8000	61000		
	AR	49.18	16.39	3.28	13.11	4.92	13.11	100.00		
	UNV	96000	7000	5000	10000	6000	6000	130000		
	GLA	73.85	5.38	3.85	7.69	4.62	4.62	100.00		
	AKTU	35,000	5,500	5,000	5,000	7,000	5,000	62,500		
	DBM	56.00	8.00	8.00	8.00	11.20	8.00	100.00		
	ED	10000	4000	2000	8000	3000	5000	32000		
	UNV	31.25	12.50	6.25	25.00	9.38	15.63	100.00		
B.ED	GLA	30000	10000	2000	8000	3000	8000	61000		
	AKTU	49.18	16.39	3.28	13.11	4.92	13.11	100.00		
	DBM	96000	7000	5000	10000	6000	6000	130000		
	ED	73.85	5.38	3.85	7.69	4.62	4.62	100.00		
	UNV	389,000	56,000	30,000	60,000	54,000	45,000	634,000		
	AR	61.36	8.83	4.73	9.46	8.52	7.10	100.00		
	UNV	53000	25000	12000	50000	20000	30000	190000		
	AR	27.89	13.16	6.32	26.32	10.53	15.79	100.00		
	UNV	210000	60000	12000	48000	18000	48000	396000		
	GLA	53.03	15.15	3.03	12.12	4.55	12.12	100.00		
	AKTU	580000	42000	30000	60000	36000	36000	784000		
	DBM	73.98	5.36	3.83	7.65	4.59	4.59	100.00		

the stratified sampling technique.(Table-3). **Financing by Institutions/Colleges/Universities** With regard to the financing, an assessment of the data concludes that fees and funds were the only source of income of sampled institutions. Trade-wise, affiliation wise, course wise descriptive study is presented in the table, where it was analysed that in all the four cases, fees and funds comprises of the maximum contribution in fees in every course which is completely being passed on to students/parents. Out of various sources of financing, fees and funds constitute almost more than 99 per cent share in all the trades/courses. Thus, fees and funds is the only source of income of these colleges/institutes.

Table 5

Distributions of Students Availed Study Loans in Agra by Loan Amount, 2017-18			
Amount of Loan (Rs. In lakh)	Male	Female	Total
Up to 1.00	29	14	43
	5.24	2.53	7.78
1 to 2.5 lakh	17	12	29
	3.07	2.17	5.24
2.51 to 5 lakh	3	1	4
	0.54	0.18	0.72
Figures in parentheses are percentages.			
Source: Primary Survey.			

Source of Financing of Education By Students and Institutions

The professional education requires huge finances for creating physical infrastructure in the form of land, building, equipments and furniture in the form of capital cost. The service provider have to bear recurring costs in the form of teaching staff, supporting staff, lab consumables, etc. The financial support of state, industrial houses, philanthropist organizations, and alumni is required to provide such education courses at lower prices. The dwindling state funding to higher professional education and changes in policy parameters paved the way for involvement of private players in a big way. A large number of the colleges/institutes providing higher professional courses were opened in the private sector during the last one and half decade in Agra-Mathura. Here, in the absence of state support, delivery of professional education courses is predominantly in the hands of private players, where full-cost recovery methods have been applied. Fees and funds charged from the students or parents have become most important way of cost recovery mechanism. Moreover, the beneficiaries, being rational consumers having high expectations of getting employment and earnings, are ready to pay high fee and funds. It is observed that in almost all professional courses, private cost of acquiring education was found to be the highest. In the absence of state finances in the form of

Table 6

Distributions of Sampled Students in Professional Education in AGRA-MATHURA by Source of Financing , 2017-18			
Source of Finance	Male	Female	Total
Parents Exclusively	145	111	256
	26.22	20.07	46.29
Other Family Members/Relatives	14	19	33
	2.53	3.44	5.97
Foreign Remittances	2	0	2
	0.36	0.00	0.36
Parents/Fee Concession	28	56	84
	5.06	10.13	15.19
Parents/Scholarships	18	11	29
	3.25	1.99	5.24
Study Loans	49	27	76
	16.70	10.40	13.74
Total	293	260	553

grants and subsidies (fee concessions, scholarship, etc.), naturally a question arises in one's mind 'who is bearing study expenditure of the students?' This question is the direct outcome of paying high fees and funds and other sundry expenses by the beneficiaries to acquire professional educational services in the state. It is, therefore, paramount to examine the financing practices adopted by the beneficiaries.

Table 7.1 provides the information about financing practices adopted by the students for getting professional education in Agra-Mathura. The data show that, as expected, more than 45% of sampled students (256 students; 46.29 per cent) depend upon their parents' income for financing their study expenditure. Gender-wise division of students states that 26 per cent of male students and 20 per cent of girl students depend upon their parents to finance their education. Further, a little less than one-tenth students (13per cent; 16 per cent males and 10 per cent females) were dependent upon the study loans for financing their education. The proportionate share of other sources was as follows: other family members/relatives nine students (23per cent; 14 per cent males and 19 per cent females); foreign remittances two students (.36 per cent; parents/scholarships five students (5 per cent; 3.25 per cent males and 1.99 per cent females); parents/fee concession (15per cent; 10 percent males and 5 per cent females).

Comparing Indian Higher Education at Global level Opportunities

Studying abroad is one option that is open to the present students who have done their Bachelor's in India. Indian students prefer to study abroad because of advantages of personal growth, broader understanding of the world, jump starting the career and better and more lucrative employment offers. Lot of Indian students prefer to go for their Masters (MS) in United States and the reasons/advantages of such education are usually listed as follows.

- **Commitment for excellence:** only the best students world over are admitted to MS in American and other universities. The top schools in US are able to attract the expert teachers and quality of education improves every year.
- **Research:** There is an excellent scope for doing research in other developed countries. Funding and grants for most research projects at the university are obtained from either the federal government or reputed multinational corporations in the industry.
- **Academic Flexibility:** The higher education system in developed countries offers a kind of flexibility in terms of the courses that are offered, which enables you select your choice of subject from a variety of topics. You can now specialize in the area of your choice without having to take any unnecessary classes. You also have the flexibility to choose a class at any time during the academic year, since the some courses are offered multiple times during the academic year.

The quarterly or semester system gives you a flexibility to complete your academic program at your own pace and take additional time on a research project if required. For instance, if you can complete the total number of courses required for you to graduate, you can finish up your master's degree within a year.

Some similarities of Indian and American education

- Well-structured syllabuses and curriculum
- Both countries spend heavily on education

- Qualified teachers
- Both Countries have private and public schools system
- Free education in Public schools
- Sophisticated laboratories
- Good Infrastructure facility

Major Differences of Indian and American Education System

Though, there are some similarities but the way education sector is treated in both countries shows a vast difference.

Education in USA Vs Education in India

- Teacher must hold state certification and license to teach.
- 20 -30 students per teacher in a class.
- Sports and extracurricular activities and considered equally important as core subjects.
- Flexible education system.
- The standard of education is not too high. Here curriculums are flexibly designed so that every student passes the high school.
- Maths is an optional subject in US.
- Teachers are important but do not hold the same value as in Indian Education system.
- Curriculum designed for upper grade may not be based on/related to lower grade.
- More emphasis is given to exploring and understanding the concepts.
- Public schools are well maintained and managed with better infrastructure.
- No formal examination for the students of lower classes. Though students of the higher class have to appear for tests.
- Students need not to carry lots of books.
- Teacher can start teaching to elementary classes after getting master or bachelor degree. However, they can continue their studies to become the experienced and qualified teacher to teach in higher classes.
- Approx. 50 students in a class per teacher.
- Traditional in Nature. More emphasis on core subjects. Sports and extracurricular activities are optional and do not hold the same importance.
- Education system is rigid.
- The standard of education is high. Here students are prepared to face the upcoming challenges in future.
- Maths is compulsory till 10th standard.
- Teacher receives great respect from students and parents.
- Curriculum of upper grade is built on the learnings of lower grade. For instance, the explained concepts in 9th grade would have been introduced in 8th grade.
- Emphasis on academic performance. Mostly, about reading and memorizing the study materials.
- Most of the public schools (run by government) are poorly managed (they lack infrastructure and other facilities). Hence, parents prefer for private schools.
- Whether lower or higher, students of all the grades have to sit for the examination.
- Everyday even the lower grade children have to carry several books.

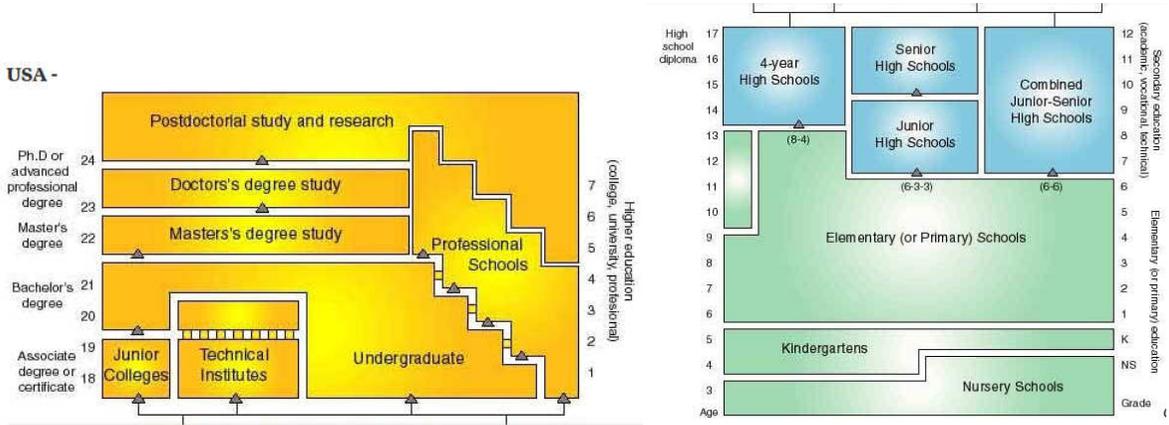


Figure 1

Source-Secondary Data

Now, there are two main reasons why Indian education cannot follow the American pattern. The first is the syllabus. An Indian professor is expected to cover the entire syllabus, which is prescribed by the university. Since the examination is conducted by the university and the student performance is evaluated by external examiners, a professor cannot afford to leave anything out. That leaves little time for discussion and debate in the class. American professors write their own syllabi, give their own tests and exams, and evaluate the students themselves. That gives them a lot of leeway in what is taught, how it is taught, and how it is evaluated. But, as I said earlier, that also leads to abuses of that freedom. The second reason is that India is a poor country. Each country has to adapt its education system to its own circumstances. An affluent country like America can afford to have a project-oriented system, which is somewhat wasteful at times. A poor country like India has to conserve all its resources; so it goes for lectures and paper-based examinations. But note that it is the product of that inferior system of education that is doing brilliant work in many fields in American business and industry. By the way, they are not all products of the famed IITs (Indian Institute of Technology). Now that India has started on the path of affluence it is perhaps time to change the system by allowing flexibility to individual colleges and professors within them, adding more practice and application to the curriculum, and getting the professors and the students to do more research and experimentation.

Hypothesis Examination

1. There is no relationship between cost of higher education and quality of result.

Table 6

Correlation Matrix			
		Cost of Higher Education	Quality Result of Students
Cost of Higher Education	Pearson Correlation	1	-0.67
	Sig.(2 Tailed)		0.000
	N	553	553
Quality Result of Students	Pearson Correlation	-0.67	1
	Sig.(2 Tailed)	0.000	
	N	553	553

Table proves that there is significant negative correlation between these two variables. This also means that when cost of education increases it becomes unaffordable for meritorious students.

2. The students depend primarily upon the parents to finance their education there is no significant difference between two versions.

Z-test is used here as

$$Z = \frac{(X - 0.5) - 0.5n}{0.5 \sqrt{N}} = \frac{91.3 - 0.5 \times 115}{0.5 \sqrt{115}} = 7.9$$

The critical value of Z at 5% significant level is 1.96 (two tailed test). As the absolute sample value of Z is more than the absolute critical value, then null hypothesis is rejected, which says that two versions of students are not same means students are primarily depending upon their parents for financing their higher education in India.

3. The professional institutions are passing all their costs to students, there is no significant difference between two opinions.

The critical value of Z at 5% significant level is 1.96 (two tailed test). As the absolute sample value of Z is more than the absolute critical value, then null hypothesis is rejected, which says that two versions of students are not same means students are finding that school/colleges/universities are passing on the burden of costs to parents.

Policy Implications

The education development experience of world countries establishes beyond any doubt that the quality education with wider access and affordability happens only in the situation of the adequacy of public resources and comprehensive regulatory framework. From the study, it becomes clear that the practices related to fees and funds, recovery of costs, salary of the staff and above all, financing practices demand serious attention of the state. The state has to decide about the extent and modes of cost recovery. The allowing of full recovery of institutional costs would be socially hazardous step, and ultimately, it will turn out to be a phenomenon not conducive to the economic growth of state. Actually, any act which discourages the building up of quality human capital in the on a larger scale is actually growth reducing in nature. The full recovery of recurring cost from students as has been the case among various trades in the professional education makes the education unaffordable for weaker sections of the society. The present level of fees and funds is very high keeping in view of the level.

After Masters in US is more profitable and lucrative employment is almost guaranteed. But only 0.6% of Indian Students are able to afford /get admission in US universities. If 'Make in India' policy of Sri Narendra Modi is successful, we can expect flow of foreign capital not only for industries and manufacture but also in academics. This may result in providing equal educational opportunity for one and all.

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