

Financing Higher Secondary Education: A Pilot Study on Households Expenditure Pattern

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Abstract

This article deals with the issue of financing higher secondary education (grade 11 and 12) in Nepal. The higher secondary education is growing in each passing year with the involvement of public as well as private schools. The main concern is to explore an appropriate mechanism of determining fees and pricing that are beneficial to both students as well as higher education board. In absence of standard parameters of fees structure and investment, it is difficult to estimate resources accurately. It is also difficult to find the total investment made and pattern of financing by government, households and other donor agencies including I/NGOs. In the absence of adequate documentation, it becomes difficult to make evidence-based plans and policies. So, there is a need of research that gives an overview of financing patterns in the present context for further expansion and modification of the financing pattern in this sector.

Keywords: Higher secondary education, education financing, household financing, school expenditure.

1. Introduction

Education is considered a key intervention to generate full employment and economic prosperity. With globalization and development in information technology, demand for education is at its peak, not only for individual freedom but also as an investment for collective benefit of society. Economies are gradually becoming more knowledge intensive. With increase in investments it is necessary to understand nature of human capital and the role it is going to play in country's wellbeing and more specifically how the required human capital is going to be supplied. Understanding human capital requires a broader sense of analysis. Rather than limiting the outcomes of human capital to social and individual returns the role of human capital in generating knowledge, skill, competencies, attitude in a person has to be understood in relation to how these traits facilitates.

Education not only benefits the individual involved in it but also generates spillovers for the society. Through access and completion of education human capital is developed leading to a more engaged and cohesive participatory society. Thus, education is considered as a key intervention to generate full employment and economic prosperity. With globalization and development in information technology, demand for education is at its peak, not only for individual freedom but also as an investment for collective benefit of society. With increase in investments it is necessary to understand nature of human capital and the role it is going to play in country's wellbeing and more specifically how the required human capital is going to be

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supplied. Understanding human capital requires a broader sense of analysis. Rather than limiting the outcomes of human capital to social and individual returns the role of human capital in generating knowledge, skill, competencies, attitude in a person has to be understood in relation to how these traits facilitates in creation of personal, social and economic wellbeing (UNESCO, 2003).

Education financing is the most important aspect of human capital supply. It is an elaborate process of allocating resource for education. The process is very complex and controversial. Which sector to prioritize? How to generate resources for financing education? What human resources are needed for a country? How much to invest in education? Which region to invest (rural or urban)? Which sector will invest in education? What are the roles of students and household sector? What are the roles of public, private and international agencies? How to monitor the outcomes of investments? Many such questions have to be considered while financing education (Vegas, 2011). Understanding the world trend in education financing is therefore necessary to know Nepal's position on education financing. In this regards the paper first outlines world trend in education financing focusing on public expenditure on education going on to discuss education financing in Nepal. Therefore, the objective of the study is to carry out the assessment on the financing status of higher secondary education (grade 11 and 12) on the investment made by the households in Nepal.

2. Research methods and approaches

The research design for *this study* is mixed in nature. The qualitative data are collected via in depth interview and focus group discussion (FGD) and that followed the quantitative figures and their interpretation. The structured questionnaires are designed to quantify data to produce meaningful result and elucidation of the research. The data, facts, figures and information associated with the financing of higher secondary is produced by different key sources related to the area. The collected facts and figures were used to present the financing flow of higher secondary school, households (HHs) financing for grade 11 and 12 and financing pattern of government. Data is collected through primary and secondary sources. The primary source of data collection consisted survey. The selected districts were three from Kathmandu Valley, one form hilly region (Kaski), two from mountain region (Dolkha and Rasuwa) and one from terai region (Banke). Sample of the study were 20 - 20 students in private and public schools from all selected districts.

SPSS software package was used for the data entry, verification, editing and tabulation of the study results. These data were then present in the format of chart and tables for facts in report. The quantitative data were presented in tables, charts and graphs as and when it was considered necessary and useful In the case of qualitative data, the collected data were transcribed and well organized into different themes and sub-themes. Then data were groups coded and grouped thematically as per the research questions. The themes were further sub-categorized according to the objectives of the research in different areas and sub-areas for meaning making process. These processes were substantiated by already established and published information related to the study. Finally, report was prepared by analyzing both the quantitative and qualitative data and findings were drawn. The reflections of ideas were also drawn from the review. The final report and dissemination of the findings were presented on the basis of the mutual understanding of the consultant and client.

3. Literature review

An overview of world trend in education reveals that governments support on primary education is high as unit costs are low, has more social returns and is observed to favor poor. While at tertiary level government support is less as unit costs are comparatively higher, individual returns are higher compared to social returns and participants are from higher income households (World Bank, 2001). For countries that have already achieved primary education targets investments are greater in secondary education, in North American, Europe and Central Asia public expenditure is higher in secondary education compared to primary education. While in East Asia and Pacific, South and West Asia, Latin America and the Caribbean and Sub-Saharan Africa public expenditure is high in primary education. Public expenditure on tertiary education is low compared to primary and secondary education in all regions of the world (Voffal, 2012).

Various researches have shown that relation between expenditure in education and learning outcomes is bleak (Al-Samarrai, 2003). This indicates that focus should be given in what way are the expenditure done rather than how much is allocated. The core areas on education finance systems that have to be taken into consideration are school conditions and resources, allocation mechanisms, revenue sources, education spending and fiscal control and capacity. Likewise, key policy goals are ensuring adequacy, performing efficiently and promoting equity (Vegas & Coffin, 2012).

Mechanisms such as direct public funding of private schools, scholarships and student loans are widely used, other mechanisms such as community grant (grant given to group of individuals linking to attendance in a community based institution), targeted bursaries (purpose specific, earmarked transfers targeted to schools, municipalities or provinces), voucher (payment given directly to students to be used at school of their own choice) and social funds (are financial proposals for acquiring public, private or community support for education) are also coming up. Each of these mechanisms have their own objectives and constraints (Patrinos & Ariasingam, 1997, cited in UNESCO, 2002). Promoting equity is the major objective of all the mechanisms. Community grants and social funds aim at improving management capacities besides promoting equity. Target bursaries aim to enhance access and vouchers aspire to increase choice in education. Concerns are mostly on sustainability of the project, credibility of schools and social divisions that could be caused by these mechanisms.

Around the world more than three fourth of expenses on education is incurred on staff compensation. It was observed that about 83 and 80.3% of education expenses go to staff compensation in WEI and OECD countries respectively. Capital expenditure comprises 8% of total education expenses while rest is recurrent expenditure. In WEI countries share of capital expenditure is slightly greater at 8.6% compared to OECD countries (7.9%). WEI countries have greater share of education as portion of total public expenditure compared to OECD countries. However greater portion of GDP of OECD countries is invested in education compared to WEI countries.

School education is the most prioritized sector of education financing in Nepal. At present around, 61.3% of total education expenditure is on schools. Education Act 2028 (1971) (eighth amendment, 2006) has made various provision for school level funding. District Education Fund consists of grants from Government of Nepal, grants from District Development Committee, amount collected from education tax, donations and funds from other sources. At local level schools are funded by the school Fund which consists of grants from Government of Nepal, grants from District Education Fund, grants from VDC or municipality, fees, donations, funds from other sources. The sixth amendment of this act has made provision for Rural Education.

Development Fund which consists of funds from Government of Nepal, funds (not less than 1.5% of total annual revenue) from institutional schools, donations, funds from other sources.

The Constitution of Nepal (2015) demands a thorough reorientation of the education system through structural and functional reforms including the policy and regulatory frameworks. The constitution guarantees the fundamental right to education and lays down the directive principles of the federal state, provinces1 and local bodies on education and the right to education. To address the fundamental rights, the SSRP and previous programs had stressed improving overall access to education, as well as quality and learning outcomes. As such, the SSDP is taking the quality agenda forward through an increased focus on the quality of education and equitable access, participation and learning outcomes. It also mentions that local governments and school communities are playing major role in financial management.

Around 1.48% of total education expenditure has been allocated for higher secondary education. Higher secondary education is mostly funded by household sector. Higher Secondary Education Act 2046 (1989) has made provision for Higher Secondary Education Council. The Council can secure loans and grants or collect financial resources for operation with prior approval from Nepal Government. The Council should have a separate fund which consists of grants from Nepal Government, amounts from donations; amount from other sources.

4. Finding and analysis

This chapter gives the comparison of Higher Secondary Schools inside and outside the Valley considered for the study. Institutional as well as public school have been considered for the research. Comparison is based on location (inside or outside Kathmandu Valley), period (fiscal year 2067/68, 2068/69 and 2069/70) and streams (science, management and others). Primary data was collected from school of Kathmandu, Lalitpur and Bhaktapur District that have been grouped as school inside Kathmandu Valley. Higher Secondary School from Kaski, Rasuwa, Banke and Dolakha has been grouped as school outside Kathmandu Valley.

Information on revenue and expenditure of school were collected and information on household income and living expenditure was collected for understanding household level financing on higher secondary education. Apart from that various case studies from school operators as well as parents have been collected to understand their perception on financing higher secondary education.

Students that participated in the research were studying in grade 11, grade 12 and had already passed grade 12. Out of total school 42.86% were from Kathmandu Valley and 57.14% were from outside Kathmandu Valley. Of total students' 50% were from inside the Valley and 50% were form outside the Valley. Among them 18.5% were from private school inside the Valley, 31.5% were from public school from inside the Valley, 23.56% were from private school outside the Valley and 21.44% were from public school outside the Valley. The portion of public-school students is more compared to private school students.

5. Revenue of schools

It is observed that revenue generated by school inside as well as outside the Valley are increasing. However, it is observed that revenue is increasing more for private school. For public school considered in the research it is observed that the annual revenue is almost constant. The average revenue of private school was about Rs. 9.3 million in fiscal year 2067/68 which decreased to Rs. 9.1 million in 2068/69 and increased to Rs. 10.9 million in 2069/70. For public school revenue was observed to increase from Rs. 0.75 million in 2067/68 to Rs. 0.86 million in 2068/69 and remained constant at Rs. 0.86 million in 2069/70. It is observed that the average annual revenue generated by private school is more than ten times revenue generated by public school.

This indicates that large investment has been done in private school. Although public school fulfills demand of larger portion of population, the fees are nominal compared to private school. This has been the problem for almost all the public school participating in the research. Government support is not adequate to run public school and support form education board is fairly nominal. The following section gives the average annual income generated from various sources for private and public school.

The sources of revenue are different for private and public school. It is observed that private school earn on average Rs. 6.3 million from monthly fee annually while public Schools earn about Rs. 0.43 million from monthly fees. While Rs. 1.82 million is contributed by shareholders in private schools, Rs. 0.24 million is contributed by community in public school. Private school earn on an average Rs. 0.66 million from annual charges (transportation, computer lab, library, sports), this amount is minimal (Rs. 0.02 million) in public school. Private school earn around Rs. 0.33 million from internal examination fee compared to only Rs. 0.01 million by public school. Around Rs. 0.21 million is earned from interests in private school while the amount is Rs. 0.02 million) in public school while the amount is Rs. 0.02 million in public school (Rs. 0.15 million) compared to private school (Rs. 0.01 million). Around Rs. 0.21 million is generated by private school from products and services while public school does not earn from products and services. Around Rs. 0.7 million is received by public school as government support. Public school was observed to earn from other sources such as religious activities which accounted to Rs. 0.62 million while it was just Rs. 0.01 for private school.

Sources of revenue	Private	Public
school Fees	6,397,644.23	431,617.51
Shareholders/ community	1,823,556.16	248,891.89
Other Fees (Transportation, computer lab, library, sports)	664,691.52	20,693.87
Internal Exam Fee	338,252.86	13,986.94
Interest earned	212,274.27	20,412.78
Rental income from school property	18,486.67	159,134.53
Product/Service	217,169.95	-
Government sources	-	72,650.05
Others	19,288.00	692,936.00

Table 1. Annual average revenue generated from different sources

It has to be considered that sources such as religious activities are not common to all public school however it has contributed a large portion in revenues of public school that were considered for the study. Revenue sources may vary according to location. As fees are lower in public school, they have to look for other sources of revenue. In private monthly fee the major contributor while other sources are fewer contributors. Private school has investors who bear the initial investment cost of overheads. For public school the initial overhead expenses are borne by local community sources and government sources. Public school have come up with strategies such as renting the school property and religious activities to cope up with extreme shortage of funds. On one hand public schools are the panacea for thousands of low income families who cannot afford private schools. On the other hand, they also have to pay regular salaries to staffs and maintain school infrastructures.

Period	Туре	Location	Average annual revenue (Rs.)
Private 2067/68 Public	Inside Kathmandu Valley	9,863,677.20	
	Private	Outside Kathmandu Valley	9,029,322.22
		Total	9,307,440.54
		Inside Kathmandu Valley	883,430.40
	Public	Outside Kathmandu Valley	629,070.70
		Total	756,250.55
Priv 2068/69 Pul		Inside Kathmandu Valley	10,763,594.40
	Private	Outside Kathmandu Valley	8,407,365.17
		Total	9,192,774.91
		Inside Kathmandu Valley	890,734.50
	Public	Outside Kathmandu Valley	830,920.50
		Total	860,827.50
Private 2069/70 Public	Inside Kathmandu Valley	11,554,446.40	
	Private	Outside Kathmandu Valley	10,629,709.49
		Total	10,937,955.13
		Inside Kathmandu Valley	709,202.20
	Public	Outside Kathmandu Valley	1,017,080.00
		Total	863,141.10

Table 2. Average annua	l revenue across period	, type and location
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Private school has larger investment hence the school management as well as shareholders ensures that the institution is running efficiently. There are strict code of conduct for management staffs and teachers. Teachers have to complete their courses on time and are paid according to their experience and expertise. The credibility of the institution lies on students' performance hence regular class tests and terminal examinations are taken. It is ensured that students are well disciplined and are studying. There are also regular contacts of the teachers with parents. Hence parents are aware of their children's performance.

Public schools on the other hand suffer from shortage of funds. The monthly fees and government support is inadequate to meet regular operation costs. There is large number of students in a class in government school (more then 40). Teachers cannot give attention to student's performance; teachers cannot correct individual assignments and give feedback. Students mostly depend on guidebooks and guess papers to pass exams. In many government school sessions started late because most of the students come after the SLC make-up exams. The main aim of the teachers is to complete the course on time. Teachers are concerned about students' performance but they have limited resource.

6. Expenditure in different schools

Every year school makes expenditure based on their annual revenue and support from shareholders or community. Expenditure is mostly on operation and maintenance. In the school considered for the study expenditure was observed to be directly proportional to revenue generated. Like revenue, expenditure in private school is almost ten times that of public school. Expenditure in private school has been increasing annually. The average expenditure for private school was about Rs. 6.83 million in fiscal year 2067/68 which increased to Rs. 6.86 million in 2068/69 and to Rs. 70.07 million in 2069/70. For public school average annual expenditure was observed to increase from Rs.0.47 million in 2067/68 to Rs. 0.55 million in 2068/69 and slightly decreased to Rs. 0.54 million in 2069/70.

The expenditure categories are similar for private and public school and in each category private school spends almost ten times more than public school. It is observed that private school spend on average Rs. 5.2 million on teacher salaries compared to about Rs. 0.45 million by public school. While Rs. 0.14 million is spent on advertising by private school, it is significantly less at Rs. 0.006 million spent by public school. Private school spends on an average Rs. 0.12 million on non-teaching staff, this amount is Rs. 0.08 in public school. Private school spends around Rs. 0.09 million on purchase of books and stationery as well as transportation. Public school spends around Rs. 0.03 million on purchase books and stationery and around Rs. 0.01 million is spent on transportation. About Rs. 0.10 million is spent by public schools. Average annual expenditure on maintenance was observed to be Rs. 0.07 million in private school and Rs. 0.1. Around Rs. 0.04 million is spent by private school on purchase of equipment and furniture, it is Rs. 0.02 million in public schools. Likewise, Rs. 0.07 million is spent by private school on utilities; it is Rs. 0.01 in public school. Public school were observed to provide on an average Rs. 0.01 million on scholarships while private school provided scholarships of about Rs. 0.07 million.

Expenditure categories	Private	Public
Teacher Salaries	5,207,607.55	456,294.13
Major construction	84,316.96	102,685.68
Non-teaching staff Salaries	121,719.27	86,112.80
Bulk purchases of books/ stationery	90,984.90	37,738.39
Scholarships	75,466.39	19,326.98
Transportation	90,097.82	13,595.13
Maintenances	75,850.03	10,926.12
Equipment / Furniture	46,745.07	27,439.89
Advertising	142,740.51	6,181.17
Utilities	73,233.91	15,618.06
Other expenditure	967,221.68	61,958.49

Table 3. Expenditure categories in private and public school

Private school spends more to maintain a standard of education that they have set. These standards are one of the prime factors of attracting students. Parents and students are attracted by factors such as past performance in board examination, extra-curricular activities, library, computer lab facilities and discipline maintained in the school. Non-teaching staffs were observed to be more in private school compared to public school. It would not be wrong to say that private school is becoming more of a business and less of education providing institution. There is a large competition and household those have better income have lot of choice. For household with lower income choices are mostly limited to scholarships or studying in public schools.

7. Household financing in school

As there is low investment of government in HSE, almost entire cost of high school is borne by the household sector. This section shows how household income and expenditure varies across streams (science, management and others) in public and private school within and outside Kathmandu Valley. It is based on sample students of Kathmandu, Lalitpur, Bhaktapur (Inside Kathmandu Valley), Kaski, Rasuwa, Dolakha and Banke (Outside Kathmandu Valley). Although this data cannot be used to generalize the overall situation of the country, it gives an initial idea of expenditure incurred by household in schools.

The student questionnaire focused on annual household income, annual living expenditure and annual expenditure on school. Furthermore, interviews were also held with parents of students studying in private as well as public school which indicate that in general education in private school are more expensive compared to public school and parents would prefer private school given that household income is sufficient.

8. Household income

This section gives different sources of income of households of students studying in private and public school.

Average household income of students is given across location (inside and outside Kathmandu Valley), type (private and public) and stream (science, management and others). Further six different categories of household income have been derived and distributions of students in these categories are observed based on location and type of school.

8.1 Sources of income

Various sources of income were observed among households of student going to public and private school. Households had a combination of income sources. Major income sources observed were remittance, services (government, private and pension), trade/business, agriculture, wage labor and other sources.

In both private as well as public school remittance was observed to the major source of income. It contributes about Rs. 215,745.46 annually in sampled households of students going to private school. While remittance income contributed on an average Rs. 121,266.67 in households of students going to public school. Service (government, private and pension) contributes Rs. 168,824.37 on an average annually in households of students going to private school. In households of students going to public, school contribution of service is fairly less around Rs. 49,860.71. Likewise, average income generated from trade/business is larger in households of student going to private school (Rs. 139,839.93) compared to households of student going to public school (Rs. 36184.67).

Similar is the case for agriculture which generates around Rs. 90,821.43 annually in households of students going to private school compared to Rs. 47,714.06 in households if students going to public school. In households of student going to public school, income from wage labor is larger (Rs. 32,060.61) compared to households of student going to private school (Rs. 2,854.55). Household income of students going to private school is larger than that of students going to public school. Parents have to make tradeoff between cost of school and quality of education. With limited income parents do not have choice but to send their children to public school.

8.2 Average annual income across location, streams and type

Students were categorized according to streams, type of school and location of school. In some cases there were more than two students studying in school from the same family. However each student has been treated as an individual unit for the purpose of comparison. The average income varies for household of students across streams, location and type. Average annual income of household of students going to private school inside Kathmandu Valley is about Rs. 384,747.06 while it is Rs. 164,657.14 for households of students going to public school. It is observed that in private school household income is the largest for students studying science (Rs. 409,436.07) followed by management (Rs. 373,166.67) and others (Rs. 207,000.06). For students of public school inside Valley annual income was observed to be greater for students studying management (Rs. 164,657.14) followed by others (Rs. 156,006.67).

Households outside Kathmandu Valley were observed to have lower income levels for sampled students. Average income for households of students going to private school is observed to be higher (Rs. 300,029.14) compared to the households of students going to public school (Rs. 121,372.65). It is observed that household income is larger for students of management (Rs. 334,944.67) followed by science students (Rs. 305,105.85) and other students (Rs. 217,000.32). in public school outside Kathmandu Valley average annual income was observed to be higher for students of other streams (Rs. 127,963.66) followed by management (Rs. 125,248.45) followed by science (Rs. 100,150.32).

Location	Type of	Income categories (Rs.)						
	school	Less than 100,000	100,000 to 200,000	200,000 to 300,000	300,000 to 400,000	400,000 to 500,000	Above 500,000	Total
Inside	Private	-	-	8.70%	13.00%	13.00%	2.20%	37.00%
Kathmandu	Public	8.70%	43.50%	10.90%	-	-	-	63.00%
Valley Tota	Total	8.70%	43.50%	19.60%	13.00%	13.00%	2.20%	100.00%
Outside	Private	2.00%	4.10%	24.50%	20.40%	4.10%	2.00%	57.10%
Kathmandu	Public	20.40%	20.40%	2.00%	-	-	-	42.90%
Valley	Total	22.40%	24.50%	26.50%	20.40%	4.10%	2.00%	100.00%

Table 4. Household preference of school by income level inside and outside Kathmandu Valley

Within and outside Kathmandu Valley it was observed that households having larger income preferred private school. In Kathmandu Valley all students studying in private school had household income greater than Rs. 200,000 while students of public school did not have household incomes greater than Rs. 300,000. In private school outside Valley household income varies from less than Rs. 100,000 to greater than Rs. 500,000. it is also possible that students have under-reported or over-reported household income. This result however is only true for sampled students and cannot be generalized for all school.

9. Household expenses

There are many sources of household expenses. The household expenditure has been categorized into living expenditure and HSE expenditure. These categories have been further broken down according to location, type and streams. It is necessary to understand household living expenditure and household expenditure on HSE. HSE has more burdens on household compared to school education. As reported by parents (case three) expenditure on school is increasing every year. School has to meet the increasing operation cost and with little government

support (for public school) school have no choice but to increase the monthly fee. Once enrolled parents do not have the choice but to pay the fees as they are concerned about their children. Students do not receive their certificates without clearing their dues. In private school students are imposed fines if their dues are not cleared on time. Apart from education fee submitted to college, students require personal expenses for stationary, college dress, buying books and daily snack expenses. These additional expenses are observed to be higher for students of private school compared to public school. For students sampled in the study, monthly expenses were incurred by the family.

9.1 Living expenses

Living expenses have been calculated by grouping various expenditure categories into seven categories. Cost on food consists of cost on cereals, pulses, vegetables, condiments, meat, eggs and so on. Education expenses are the combination of monthly fee, annual charges, cost of stationeries, hostel fees, pocket money transportation and other expenses. Expenses on utilities are the sum of annual expenses on electricity, internet and drinking water. Expenses on energy are the sum of expenses on fuel wood, kerosene and cooking gas.

Living expenses are greater for households of students studying in private school compared to households of students studying in public school. Expenditure on food is the largest expenditure for both households. On an average about Rs. 149,833.6 is spent by households of students going to private school on food. It is comparatively less for households of students going to public school at Rs. 95,133.1. The annual expenditure on education is more than twice (Rs. 78,130.2) for households of students in private school compared to public school (Rs. 25,945.68). Expenses on health a service is also greater in households of students going to private school (Rs. 49,981.13) compared to students going to public school (Rs. 32,662.27). Expenses on utilities are greater for households of students of private school (Rs. 39,731.24) compared to households of public school (Rs. 19,631.13). Expenses on rent are almost similar for both types of households. For households of student going to private school it is Rs. 21,799.43 compared to Rs. 18,634.34 for households of student going to public school. Likewise, expenses on energy are also greater for households of student going to public school to households of student going to public school. Likewise, expenses on energy are also greater for households of student going to public school to households of student going to public school.

Expenditure is observed greater for households of student going to private school as the household income is greater. Expense on education is a major burden for household having lower income as there are not immediate returns to education. In this regards some parents prefer their children to work instead of gaining education. Some also thinks that secondary education is enough for their children. However there is an increasing awareness on requirement of higher secondary education. Parents of student going to public school want more subsidized education while parents of students going to private school want some regulation in increasing school charges.

9.2 Household living expenses across location, streams and type

Living expenses varies across students of different streams, type of school and location. It is observed that average household expense is almost double in households of students studying in private school inside Kathmandu Valley (Rs. 326,598.65) compared to households of students studying in public school (Rs. 143,104.71).

Largest household expense is observed in households of students of science stream (Rs. 349,623.80) followed by management (Rs. 30,434.17) and others (Rs. 229,856.29) in private school inside Kathmandu Valley. Household expenses are equally high in private school outside

Valley with household living expenses being the highest in students of science stream (Rs. 292,044.08) followed by management (Rs. 208,727.50) and other streams (Rs. 198,872.34). Household expense is slightly greater in households of students attending public school inside Kathmandu Valley (Rs. 143,107.28) compared to students attending public school outside Kathmandu Valley (Rs. 108,434.43).

Study Location	Type of School	Stream	Average HH expenditure
		Science	349,623.80
	Private	Management	304,347.17
		Others	229,856.29
Inside Kathmandu Valley		Total	326,598.65
		Management	147,104.71
	Public	Others	139,376.33
		Total	143,107.28
Outside Kathmandu Valley	Private	Science	292,044.08
		Management	208,727.50
		Others	198,872.34
		Total	268,507.43
	Public	Science	189,474.45
		Management	111,896.70
		Others	114,322.86
		Total	108,434.43

Table 5. Average household living expenditure across type, stream and location

Observing annual average living expenditure is not enough to understand the impact of examination board on household. Expenses specifically related to school have to be observed. The following section describes major expense incurred on examination board among households of students inside and outside Valley studying in public and private school across different streams.

9.3 Expenses in examination board

School fees including annual fee is the direct visible cost incurred in school. However, there are various other costs incurred by the student during exam. These costs include hostel fees, transportation, pocket money, educational tour expenses, expenses on sports, internet, uniform cost, books and stationery cost and other costs. These costs have been calculated for individual students. Although the cost is borne by household, these costs are incurred only on students. For categories such as room rent, total annual rent is divided by number of family members to gain individual expense on rent. Similar calculation has been done for internet.

Annual charge of private school is extremely high compared to public school. This is the single most charge that makes private school thrice as costly as public school. Private school charges various fees in the annual charge. Charges are taken for computer labs, internet, library, extracurricular activities and so on. It was observed on an average student in private HSE had to pay around Rs. 32,493.33 compared to Rs. 2922 as annual charge in public school. Annual hostel fee or room rent is another category of major expenses. On average students of private school pay Rs. 24,842.11 as hostel charge or room rent compared to Rs. 16,018.12 paid by students of public school. Monthly fee is also high in private HSE which accounts to Rs. 17,520 as annual student expense while in public HSE it is only Rs. 5,172 students of private school spend twice as much as pocket money (Rs. 9,456) compared to students of public school (Rs. 4,564.8). Equally high is transportation expenses. Most private HSE provide transportation service. Annual expense incurred in transportation by students of private school is Rs. 6,535 compared to Rs. 3,216 incurred by students of public school. It was observed that most of private school had annual education tour while it was observed only in some public school. Internet and phone use is almost same in students of private (Rs. 5,613.33) and public (Rs. 5,292.89) school. Similar is the expense on uniform and books and stationery.

9.4 Household expenses across location, streams and type

It is observed that studying science in private colleges inside Kathmandu Valley is the most expensive of all school will average annual expenses of around Rs. 66,346.5. Students of science stream in private colleges outside Valley incur expenses of around Rs. 46,593 annually. Still lower is the annual expenses incurred by students of science stream in public school outside Kathmandu Valley (Rs. 23,065). This makes science the most expensive stream of study across streams and type of school inside as well as outside the Valley. Monthly fees in science stream is greater compared to other streams because of greater initial investment on lab and higher teacher salary of science teachers. Studying management in Kathmandu Valley is equally expensive (Rs. 53,232.67). It is almost twice of the cost in public school (Rs. 23,500.5) inside the Valley and almost thrice the cost of studying in public school outside the Valley (Rs. 13,245). Other streams that include humanities and education are cheaper compared to management and science.

Location	Type of School	Stream	Annual expenditure on education
Inside Kathmandu Valley		Science	66,346.50
	Private	Management	53,232.67
		Others	31,200.32
		Total	50,259.72
	Public	Management	23,500.50
		Others	11,703.67
		Total	17,602.09
Outside Kathmandu Valley		Science	46,593.85
	Private	Management	30,693.70
		Others	25,130.50
		Total	34,139.48
		Science	23,065.33
	Public	Management	13,245.22
		Others	11,172.14
		Total	15,827.38

Table 6. Expenditure on HSE across stream, type and location

It is observed that students from household having low income inside the Valley are likely to be studying in management or in other streams. While outside Valley students from both low incomes group as well as high income group has chance of studying science. A large number of students come to Kathmandu Valley for school. Living cost is high in the Valley hence burden on household is large. Public school have their own constraints. Apart from minimal resources, students enrolling in public school are mostly students with low marks in the school Leaving Certificate (SLC) examinations. Hence it is very difficult for public school to maintain good student performance.

10. Conclusions

A comprehensive research on education financing still lacks in Nepal. Also, researches tend to focus more on public education financing. Alternative forms of education financing need to be explored and developed to overhaul the education system of Nepal. The Government may not be able to invest more on tertiary level education system but there have to be clear linkages established so that tertiary level education can reinforce and strengthen school level education system. The effectiveness of education financing has to be monitored through research and policy measures have to be designed to strengthen the education sector. Need of 'Education Financing Policy' is seen which would clearly mention financing mechanisms to be employed at different levels of education; clearly define roles of public, private and development partners so that they become more oriented towards need of the country and mention mechanisms for evaluation of financial effectiveness with provision for performance-based motivating through national recognition. Following conclusions are drawn from the study.

• Largest revenue earners are private schools of Kathmandu Valley followed by private colleges outside Kathmandu Valley.

• Student monthly fee is the largest source of revenue for both private as well as public school.

• Public school were found to employ strategies such as conducting religious activities and renting school property to gain additional revenue.

• Annual expenses is almost 10 times greater for private school compared to public school.

• Expenses on teacher salary is the largest for public as well as private school.

• Remittance is the major source of household income.

• Household income are highest for students of science stream studying in private schools of Kathmandu Valley.

• Household income are lowest for students of other streams in public schools outside Kathmandu Valley.

• Average annual household expenses on school are largest for science stream studying in private colleges in Kathmandu Valley.

• Average household expenditure is the highest in annual charges.

• Students of Kathmandu Valley spend more in pocket money compared to students outside Kathmandu Valley.

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References

- Agriculture and Forestry University (2010). *Agriculture and Forestry University Act*. Hetauda: Agriculture and Forestry University.
- Al-Samarrai, S. (2003). Financing primary education for all Public Expenditure and Education Outcomes in Africa. East Anglia: University of Sussex.
- Dangal, M. (2010). *Aid effectiveness in basic and primary education in Nepal*. Kathmandu: Kathmandu University School of Education.
- Dangal, M. (2013). Policy Context In Educational Aid In Nepal. Asian Journal of Research in Social Science & Humanities, 195-202.
- DOE (2009). School Accounting Guidelines. Kathmandu: Department of Education.
- E. Vegas, A. A. (2011). March 31. SABER-finance: Objectives and conceptual approach (pp. 1-48).
- Far Western University (2010). Far Western University Act. Kanchanpur: Far Western University.
- HSE (1989). Higher Secondary Education Act. Bhaktapur: Higher Secondary Education Board.
- Kathmandu University (1991). Kathmandu University Act. Kavre: Kathmandu University.
- Lumbini Boudh University (2006). Lumbini Boudh University Act. Lumbini: Lumbini Boudh University.
- Mid-Western University (2010). Mid-Western University. Birendranagar: Mid-Western University.
- Ministry of Finance (2016). *Estimates of expenditure for fiscal year 2012/2013*. Kathmandu: Government of Nepal, Ministry of Finance.
- MOE (1971). Education Act (eighth amendment 2006). Kathmandu: Ministry of Education.
- MOE (2016). *School sector development plan (2016-2023)*. Kathmandu: Government of Nepal, Ministry of Education, science and technology.
- MOE (2015). *Nepal education in figures at a glance*. Kathmandu: Government of Nepal, Ministry of Education.
- Nepal Sanskrit University (1986). Nepal Sanskrit University Act. Kathmandu: Nepal Sanskrit University.
- Patrinos, H. (2007). www.unesco.org/iiep/. Retrieved 2013, from www.unesco.org/iiep/.
- Pokahara University (1996). Pokahara University Act. Pokhara: Pokahara University.
- Poudel, A. (2013, June 23). Teachers who have not been able to pass 85 percent students under action. *Kantipur Daily*. Kathmandu.
- Purbanchal University (1994). Purbanchal University Act. Biratnagar: Purbanchal University.
- Shakya, S. (2013). June. School Funding in Nepal. Kathmandu.
- Shiwakoti, D. (2008). Education financing in Nepal. In: CERID, *Education and Development* (pp. 64-89). Kathmandu: CERID.

Technical Education and Vocational Training Council (1988). *Technical Education and Vocational Training Council Act*. Bhaktapur: Technical Education and Vocational Training Council.

Tribhuvan University (1992). Tribhuvan University Act. Kathmandu: Tribhuvan University.

- UNESCO (2008). Secondary education regional information base: Country profile Nepal. Bangkok: UNESCO.
- UNESCO Institute for Statistics, Organization for Economic Cooperation and Development, World Education Indicators Programme (2003). *Financing education: Investments and returns analysis of the world education indicators*. Paris: UNESCO-UIS/OECD.
- University Grants Commission (2004). *University work management rules*. Kathmandu: University Grants Commission.
- Vegas, E., & Coffin, C. (2012) February. *Education*. Retrieved June 20, 2013, from <u>www.worldbank.org/education</u>.

Voffal, S. (2012). Education finance data and indicators. Bangkok: UIS.

