Inclusive Higher Education Through Earn and Learn

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Abstract. The economic growth and the literacy rate shows high correlation for various countries. The embodied growth model observe that it is the human capital which contributes more than the physical capital and determines the national welfare also. India recognized the role of education and put high priority for spreading the education. But the spread of education in general and of higher education in particular remained the distinct goal. The present structure of highly subsidized higher education remained the monopoly of few lucky students. The gross enrollment in higher education is only 10 per cent. The model of higher education funding with state leadership needs a critical review.
The alternative mechanism to finance the cost of education is in the form of labor scheme.
 In this paper the economic analysis of the Labor scheme is made which highlights that it is the student who subsidizes the university and not the university subsidizing the university. The contribution made by the students is grater than the benefits he receives from the university. Moreover the performance of students in academic field is also noteworthy. The scheme benefited the poor and meritorious students and the pass outs are heading top ranks and posts in different walks of life. The inclusive higher education where the meritorious and poor student gets access to education is the sustainable model of higher education.

Keywords: Inclusive growth, Earn and Learn, Benefit Cost Ratio

1. Introduction

The inclusive education is a pre condition for socio economic growth of the country. It is well documented in the history of various countries. The countries like Japan, China in Asia and number of countries in Europe accorded highest priority to education which resulted in higher growth of these countries. In ancient India the education was the monopoly of the Brahmin class and rest of the society was excluded from education due to the water tight compartments of caste. The work of social reformer Mahatma Joytirao Phule and Dr B.R. Ambedkar inspired Bhaurao Patil to work for the downtrodden through education. He started his education experiment on a new line in 1919 with earn and learn model. In the present context of making education inclusive for all and attaining the Millennium Development Goal the model of Learn and Earn offers solution to various issues in Education.

In the present paper the first section deals with the present position and policies of Indian government on the background which the model of Labor scheme or Earn and Learn is presented. The last section summarizes the findings and policy implications in terms of launching Labour University.

2. Methodology

The present study is based on the experiment of Earn and Learn model practised by two universities in Maharashtra (India).The beginning of the scheme was made in Shivaji University Kolhapur and then it was followed in Dr. Babasaheb Marathwada Univeristy Aurangabad. The scheme received positive response from students and succeeded in producing galaxy of successful students working in different walks of life. We have made intensive study of 200 students participating in the scheme from both university with equal number of girls and boys in the sample. Thus it is sample of 200 respondents with 100 girls and 100 boys.

The data pertains for the two academic years 2008-09 and 2009-10. The data collected through questionnaire is processed with simple statical tools such as percentage, ratio and correlation.

In order to measure the contribution of students we used shadow price method. Here the contribution of the students is equal to the money which would have been spent if these students work would have been carried out with direct employment of staff.

For the cost on students by university we consider the monetary value of the facilities provide by the university. In order to make the benefits and cost of the scheme we adjusted the work and benefits in monetary terms.

Finally the hypothesis regarding the scheme is tested with net benefits or burden of the scheme.

3. Hypothesis

The study examines following alternative hypothesis

- The working of Earn ad Learn scheme benefits the students
- The Earn and Learn scheme benefits to university.
- The scheme is economically viable.

4. Result and Discussion

The economic viability of any scheme determines the long term future of the scheme. The Earn and earn scheme offers immense tangible and intangible benefits to the students at micro level and to the family and society at macro level. More importantly the scheme is not mercy to the poor students but it is the self reliant and offering prestige to the students. The economic benefits and cost shows that the cost benefit ratio is favourable and hence it justifies the scheme on criterion of economic viability

4.1. Benefit Cost Ratio of the Scheme

The economic viability of the scheme is determined by its benefit cost ratio (BCR). The benefits of the scheme are both to the university as well as to the students. The scheme also benefits to the society at large in terms of better manpower. The scheme produced leaders in various fields with commitment to the downtrodden. The helping hand given by the alumni of the Earn and Learn Scheme has helped new generation to put their footings on right track of life. However these social benefits though very vital are difficult to measure. Hence we concentrate on the measurement of benefits to university and to the students.

4.2. Benefit Cost Ratio for Shivaji University

The working of Learn and Earn scheme shows following trends in BCR for Shivaji University, Kolhapur.

4.3. Benefits to the University

The university benefits from the scheme with the availability of labour required for its working. The university undertakes some activities to provide work to the students which further generate income to university. In order to make the calculation simple by assuming that the university saves its wage bill by not employing labor from market and replaces this students labor. So the benefit from student is saving in wage bill.

4.4. Cost to the University

The university provides concessions in the form of free hostel, free mess , no examination and other fees or it may give direct money to the students. Apart from this direct expenditure on students the university spends for administration of the scheme and capital expenditure such as building and machinery. The university makes budgetary provision for earn and learn scheme. The actual spending on the scheme is les than the proposed provision. So the actual spending is taken as the cost of the scheme.

4.5. Benefits to the Students

The scheme is designed to benefit the poor and needy students. The student gets an access to education due to the scheme. The student gets free education, free boarding and lodging in Shivaji University while in

BAMU the student gets Rs. 12/ per hour for his work. On an average he gets monthly Rs 800/ to Rs 1000/ for his maintenance. Here the student pays the fees and pays the hostel and mess bill.

4.6. Cost to the Student

There is no direct money cost to the students. But the student pays in terms of labour. The labor hours he offers is the physical or real cost to the student. Alternatively the opportunity cost of the student is found by observing the value of labour in market. The prevailing wage rate for semi skilled worker can be taken as proxy for the market value of work done by the student.

Formula for measuring BCR requires following measurements.

- Yearly Total Work Done (hrs)= 4hours a day * Monthly 25 days * 10 Months of year * No. of Student (For Shivaji University)
- Yearly Total Work Done (hrs)= 3hours a day * Monthly 25 days * 10 Months of year * No. of Student (For BAM University)
- Average Cost of Work per hour in Rs = Expenditure on scheme by university is divided by Work done
- Total market value of Work in Rs = Work done in hours * Average/ Market rate per hours (i.e. Rs.30/hours)

In the following table the Benefit Cost Analysis for Shivaji University is presented

Table 1 Benefit Cost Analysis for Shivaji University

Year	No. of Students	Work Done in HRS	Average Cost of Work	Benefit of Work	Expenditure	BCR
2006-07	71	71000	24.26	2130000	1722386	1.236657
2007-08	50	50000	37.09	1500000	1854341	0.808913
2008-09	50	50000	34.5	1500000	1725058	0.869536
2009-10	92	92000	19.05	2760000	1752371	1.575009
Average	65.75	65750	28.725	1972500	1763539	1.122529

In the table no the cost benefit ratio for the Shivaji university shows following trend

- The university has incurred an expenditure of Rs 17.64 lakhs with the benefit of Rs19.72 lakhs.
- The BCR is positive on an average with 1.12
- The number of students was with an average of 66 but there is fall in admission in the year 2007 and 2008.
- The lower intake affected adversely BCR in those years
- The average cost of work is Rs 28.72 which is lower than the market wage rate of Rs 30/ per hour.

The scheme needs to be evaluated from students point of vies .The BCR from students point of view for Shivaji University is presented here.

4.7. Benefit Cost Ratio for Students of Shivaji University Kolhapur

Table 2: Benefit Cost Ratio for Students of Shivaji University Kolhapur

No. of Students	Work Done in HRS	Average Cost of Work	Benefit of Work	Opportunity cist	Contribution	BCR
71	71000	30	1065000	2130000	1065000	0.5
50	50000	30	750000	1500000	750000	0.5
50	50000	30	750000	1500000	750000	0.5
92	92000	30	1380000	2760000	1380000	0.5
65.75	65750	30	986250	1972500	986250	0.5

In the table no the Benefit cost ratio is measured from student point of view.

The student gets benefit in terms of free hostel and mess as well as fee concessions. These benefits if converted in cash come to Rs 15000/ per student. So the scheme benefit to student is computed as

Benefit to student: No of Student x Rs 15000/

The cost of student is the opportunity cost of labor. If the same labour is sold in the labour market the student will get wage rate @Rs 30/ per hour. So the opportunity cost is

Opportunity cost = Wage rate X work done

The difference between the opportunity cost and the benefits to the student is contribution to the university or it is the net benefit to the university.

The BCR for students shows that the student of the scheme is contributing to the university more than the benefits he receives and hence he has BCR as 0.5

The students of Earn and labour scheme contributed to the tune of Rs 986000/ .

4.8. Benefit Cost Ratio for Dr. Babasaheb Ambedkar University (BAMU)

The Learn and Earn scheme named as Vasantrao Kale Swabhiman Shikhshan Yojana of BAMU makes a budgetary provision for the scheme and list of students interested in the scheme is prepared. The students are allotted for the work by the coordinator. Although large number of students apply for the scheme the actual turnout is low due to low remuneration per hour paid. Following table shows the budget allocation to the scheme.

Table 4: Dr. Babasaheb Ambedkar University Budget allocation for Scheme

Year	No. of Students	Budget Rs	Full time No	% of Full time no to applicant
2006-07	500	2200000	254.62963	50.9259259
2007-08	460	1700000	196.759259	42.773752
2008-09	461	1000000	115.740741	25.1064514
2009-10	320	700000	81.0185185	25.318287

Following observation we make form the table

- The budgetary support is falling over the period.
- The response of the students is also falling.
- The students getting work under the scheme is only 25 % in the last two years as it was 51% in the year 2006.

4.9. BCR for BAMU

The measurement of benefit to the university we followed the same method as of Shivaji university. However we have measured these benefits with full utilization of student labour and actual use of students labour

Actual Benefit to the University = (Market wage rate – university wage rate X actual labour hours)

Actual cost to the university = Rs spent on the wage bill of students

The benefit cost ratio for BAMU is shown in the following table

Table 5: The benefit cost ratio for BAMU

Year	No. of Students	Cost Rs	Benefit A(Rs)	BCR
2006-07	500	2200000	3299994	1.49
2007-08	460	1700000	2550006	1.5
2008-09	461	1000000	1499994	1.49
2009-10	320	700000	1049994	1.49

The data presented in the table above leads us to following observations

- The university had a very strong Benefit Cost ratio of 1.5

- The response for the scheme in terms of inclusion of students in falling
- The benefit in actual term shows a trend of decline.

4.10. Benefit Cost ratio for Students

The student of this scheme benefits in terms of income at the rate of Rs 12 per hour. But the opportunity cost for him is the income he could get in the labour market which is assumed at the rate of Rs 30 / per hour.

The total benefit is the sum of the university spent on students and the cost is the opportunity cost of this labour is measured. Following table shows this BCR for students of BAMU

Table 6 BCR for students of BAMU

Year	No. of Students	Benefit(Rs)	Cost(Rs)	BCR
2006-07	500	2200000	3299994	0.66
2007-08	460	1700000	2550006	0.66
2008-09	461	1000000	1499994	0.66
2009-10	320	700000	1049994	0.66

The BCR for BAMU students is 0.66 indicates that the students cost in terms of opportunity income sacrificed is higher than the benefits received. The scheme is not responded positively by the student community is the result of adverse BCR.

5. Findings and Policy implications:

The study of two universities implementing the Earn and Earn scheme on the background of the challenges of managing human capital leads us to following conclusions:

- The education sector in India made significant progress in creating a wide network of educational institutes for primary to university level.
- The growth in terms of inclusive education is far from satisfactory level as the present education system has resulted into existence of gender and caste differences in terms of access of education
- The qualitative dimension of education in terms of basic amenities, attainment of its goal and its impact also leaves much scope for improvement.
- The experiment of Earn and Learn of the two universities shows that this scheme helps in making the education inclusive as every student in the scheme pays his cost through his labour. The scheme succeeded in creating positive impact on the learners as well as on the society with committed human capital in various fields.
- The economic analysis also justifies the spread of the scheme as the BCR or Benefit Cost Ratio is positive.
- The student benefits in terms of access to education and development of holistic human being with strong commitment for virtues of education.
- The university benefits more in terms of availability of labour force, saving in terms of cost and serving the needy and meritorious students of its region.
- The experience of Shivaji University Kolhapur and Dr Babasaheb Ambedkar Marathwada University Aurangabad needs modifications in the scheme. The scheme of Shivaji University needs expansion in inclusion and extending monetary benefits to students. The petty expenses of the students requires some cash healp also.
- For Dr.Babasaheb Ambedkar Marathwada University of Aurangabad the scheme needs revision of hourly rates to make the full compensation for the expenditure of education.
- As the university has more benefits than the student the scheme can offer more benefits to students and other universities can follow this as role model.
- All the points discussed above makes a case for following this scheme as alternative way for financing higher education and making higher education inclusive.

5.1. Towards Labour University:

The present educational sector in various countries is market based and makes higher education monopoly of the rich class. The exclusion of meritorious but poor students results in huge loss of the country in terms of human capital. The concept of using unskilled manpower in the form of disguised unemployment was propounded by R.Narkse to break the vicious circle of poverty. Now the time has come to transform the non inclusive educational sector to make inclusive through the Labour university is need of time. The successful implementation of the scheme will create a positive impact on labour market and fulfill the dream of millions to share the prosperity. The MDG goal can be attained by using labour university as an effective tool.

The funding of higher education through Earn and Learn is practiced in other countries with different formats. But the scale is limited. This scheme is very relevant for the poor countries and for the poor people to make education and development process inclusive. The subsidy based models have their own limitations as it is evident in the countries like India. The Earn and Learn Scheme if extended with collaboration of private sector or corporate sector where the work of corporate sector can be shred with students can become an instrument for effective employment generation. The experience of the two universities needs to be taken further to form a separate university which provides education to the students by using Earn and Learn model.

6. Acknowledgement

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