

ECONOMIC RETURNS TO HIGHER EDUCATION

PREPARED BY-

Dr. MANISHA RANI, ASSISTANT PROFESSOR, DES

MAHATMA GANDHI CENTRAL UNIVERSITY, MOTIHARI, BIHAR

Learning objectives

- **Understand the basic concept of economic returns to higher education.**
- **Differentiate between various kinds of educational returns.**
- **Understand the measurement techniques of educational returns**
- **Know the associated Signaling and Human Capital theories**

Introduction

- Monetary benefits from education are called as **returns**.
- It is the ratio of money gained or lost (whether realized or unrealized) on an investment relative to the amount of money invested.

Types of returns-

- **Private returns-** The benefits accruing to an individual .
- **Social returns-** The sum of all private returns together with the taxes on income paid by individuals .

Private rates of return are higher than social returns. This is because of the public subsidization of education and the fact that typical social rate of return estimates are not able to include social benefits..

Private returns to higher education-

Pecuniary (Monetary)

BENEFITS

- Increased wages
- Fringe benefits and pensions
- Reduced unemployment risks

COSTS

- Tuition fees
- Books and study materials
- Forgone labor income

Continued....

Non-Pecuniary (Non- Monetary)

Intended

- Networking
- Cultural capital
- Pleasure of student life etc.

Unintended

- Improved health
- Better family planning
- Marriage stability

Social returns to higher education

BENEFITS

- Crime reduction
- Improved health
- Knowledge spill-over and growth
- Environmental goals

COSTS

- Crowding out of other services
- Loss of labour while in education
- Direct costs of education

The benefits or returns of education

1) **Direct Benefits of Education** - the direct benefits of education are those benefits of education (or returns from education) which are realized directly by the students. They are of following three types:

- a) Direct returns
- b) 'Financial option' returns; and
- c) Non-Monetary returns.

Continued....

2) Indirect or External Benefits of Education - any investment in education gives rise to many benefits which are often not so visible and are indirect.

- These benefits are not appropriate or captured by the parents and students making investments in one's schooling.
- Some such benefits of education accrue to 'other' individuals and the society at large. All such benefits (which accrue to other than those who actually make investments in education) are called as the 'external benefits' of education.

Calculation of returns-

Two techniques are followed to calculate rates of return to different levels and forms of education. They are:

- The Net Present Value (NPV) technique and
- The Internal Rate of Return (IRR) technique.

Continued.....

- **Net present value (NPV)** - is used in Capital budgeting to analyze the profitability of a project or investment. It is calculated by taking the difference between the present value of cash inflows and present value of cash outflows over a period. *Formula for NPV-*

Formula for NPV

$$\text{NPV} = \frac{\text{Cash flows}}{(1+r)^i}$$

i- Initial Investment

Cash flows= Cash flows in the time period

r = Discount rate

i = time period

Continued....

- **The internal rate of return (IRR)** - is a discounting cash flow technique which gives a rate of return earned by a project. The internal rate of return is the discounting rate where the total of initial cash outlay and discounted cash inflows are equal to zero. In other words, it is the discounting rate at which the net present value(NPV) is equal to zero.

$$\text{IRR} = \frac{\text{Cash flows}}{(1+r)^i} - \text{Initial Investment}$$

Where:

Cash flows= Cash flows in the time period

r = Discount rate

i = Time period

Theories-

- (I) **Signaling theory**- claims that education raises wages simply because education levels is a signal of the workers ability (unobserved by the employer).
- Signaling in education suggests productivity is independent of education, but education acts as a credential for greater ability.

Example

- In other words, if we are able to get good A levels and get a degree from a respected university, then a firm will have evidence that we have certain valuable skills, such as the ability to learn and write. Therefore, we are more likely to get a highly paid job. However, the education might not actually increase our labor productivity, but only show we have the capacity to be an able worker. For example, a degree in ancient Greek may never be used in your job as an accountant. In this case, the only function of higher education is signaling your ability.

Continued....

Limits of Signaling

- Signaling is not the only function of higher education. Clearly some degrees play a key role in training a workforce to have higher labor productivity. For professions such as research scientists, teaching, doctors, and medicine, a degree is indispensable, to claim it is only a signal would miss some skills that taking a degree can teach.

Continued-

(2) **Human capital theory** –The idea of human capital theory is often credited to the “founding father of economics” Adam Smith, who in 1776, called it “the acquired and useful abilities of all the inhabitants or members of the society.”

- It claims that education raises wages by increasing productivity. It focuses on how education increases productivity and efficiency of workers by means of increasing the level of cognitive stock of economically productive human capability which is product of innate abilities and investment on human beings.

Example

- For example, some countries offer their people a free college education out of a realization that a more highly educated populace tends to earn more and spend more, thus stimulating the economy. In the field of business administration, human capital theory is an extension of human resources management.

Limitations of human capital theory-

- It provides little insight into the processes through which education and training are translated into higher wages. In statistical models, education and training account for about 30 percent of the variance in individual wages, which suggests HCT leaves a significant percentage of wage variability unexplained.

Continued.....

- A related limitation is that upper-level applications of HCT (e.g., at the national or state levels) treat education as a relatively homogenous input. These applications assume that higher levels of educational attainment and quality will yield greater productivity and wages across the board. Such treatment of education is problematic because the process of human capital formation varies for individuals and groups. People learn differently, and a “quality” education in one context may prove ineffective in another.

Self assessment-

- What do you mean by returns ?
- Differentiate between direct and indirect benefits or returns of education.
- What are the techniques for calculating returns?
- Define Human Capital theory.
- How Signaling theory is different from Human capital theory?

References

- <http://egyankosh.ac.in/bitstream/123456789/23272/1/Unit-14.pdf>
- [http://archive.mu.ac.in/myweb_test/ma%20edu/M\[1\].A._EDU_ECONOMICS_OF_EDU.-Final_1_2011-12.pdf](http://archive.mu.ac.in/myweb_test/ma%20edu/M[1].A._EDU_ECONOMICS_OF_EDU.-Final_1_2011-12.pdf)
- <https://medium.com/@nidhitambi/relevance-of-human-capital-theory-and-signalling-theory-of-education-in-the-indian-context-4141bd44206d>
- <https://www.economicshelp.org/blog/2498/education/signalling-in-education/>
- <https://www.thoughtco.com/human-capital-definition-examples-4582638>
- <https://www.tandfonline.com/doi/abs/10.1080/00086495.2013.11672495?needAccess=true&journalCode=rcbq20>
- <https://cleartax.in/s/npv-net-present-value>
- <https://education.stateuniversity.com/pages/1930/Economic-Benefits-Education-Investment-Measurement.html>
- <http://egyankosh.ac.in/handle/123456789/8307>
- https://www.researchgate.net/figure/The-private-and-social-returns-to-higher-education_fig1_45138150
- <https://blog.uvm.edu/cessphd/2016/01/19/the-strengths-and-limitations-of-human-capital-theory-in-educational-research-and-policymaking/>

Thank You