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How To Measure The Economic Return Of Education

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ARTICLE INFO **ABSTRACT**

This research aims to explain the different ways to measure the economic return from education by comparing individual and social incomes with the educational levels of individuals. There are many methods that can be used to measure the economic return from education, the most important of which are the simple correlation method, the residual income method, and the direct rate of return method for education. The descriptive analytical approach was used to measure the economic return from education and to analyze the return and cost of education .There are many studies that have attempted to measure the economic return from education with the aim of determining the economic value of education represented by the income or wage that the educated individual receives, is this income primarily due to education or are there other factors that affect income generation. Previous studies in measuring the economic return from education have reached important results, a higher level of education leads to increased productivity and higher income. Through analyzing the return and cost of education, the economic return from education is greater than the expenditure on it, and its investment return may exceed many other economic projects. Education also has a social return, both for individuals and society.

Keywords: education, cost-benefit analysis, economic return, economic growth, human capital.

Introduction:

In fact, the wealth of nations does not depend on their natural resources only, but also includes their human resources, as investment in human resources is considered the effective factor in investing in natural resources. Therefore, there are many societies that are rich in their natural resources, but are unable to achieve economic development as a result of lack of Optimal exploitation of its human resources(*Nicholas Burnett and Harry Patrinos,1997*).

The process of forming human capital is similar to forming physical capital from an economic perspective, as each of them uses the mechanism of abstaining from current consumption for the purpose of saving the resources needed to be formed, in addition to each of them needing a specific period of time, and this period may be long in forming human capital, compared to physical capital. The deficit in each of them can also be met through imports. In the event of a deficit in providing physical capital, investment goods and services are imported from abroad, and expertise and technical skill are also imported in the case of a deficit in the provision of human capital. Importing physical capital represents an addition to the national stock, unlike importing human capital, as it may not lead to an addition to the national stock if it is unable to build local skills and technical competence(*Jad Mounir,2005*).

The basic difference between physical and human capital is that physical capital is subject to the process of consumption, unlike human capital, whose social value increases the more it is used effectively through continuous training and the accumulation of experience and knowledge. The human resource may become useless if it is not used effectively. Human resources are considered the main factor on which economic and social development in society is based.

Economists (Adam Smith, The Wealth of Nations 1776) have long pointed out the importance of the human element and education and its role in development by achieving political and social stability. Adam Smith also pointed out that acquiring useful skills and abilities is considered an investment in human capital, in addition , the impact of his analysis of the principle of division of labor, the results of which were that increasing labor productivity depends primarily on specialization and division of labor(*Khalifa Hassan,2003*).

With the emergence of the modern classical school (Alfred Marshall), the concept of human capital began to emerge, and education became viewed from a consumerist and investment perspective. Alfred Marshall emphasized that education is considered a national investment that leads to increasing the productivity of individuals and that the human element is considered an important capital. He rejected Applying the idea of human capital in analyzing the concept of capital. At the beginning of the sixties of the last century, interest in the idea of human capital increased at the hands of Theodor Schulz, who explained the economic importance of the human element and education (*Mustafa Samia,2007*).

Theodor Schultz believes that investing in education leads to creating the capabilities and talents of individuals and developing them to contribute with other investments in human resources and determine the income/wage rates that individuals receive. Theodor Schultz also believes that there are five types of activities that directly contribute to the growth of human capital, including education, training, adult education, health services, and immigration(*Al-Arbawy Amal,2014*).

Human capital theory has been able to explain the causes of economic growth in most countries of the world, which for a long time remained outside the calculations of economists in economic theory. This theory explained the gap between the calculated contribution of labor and physical capital to economic growth and total economic growth, which is called the "knowledge gap" or what is called the "residual factor"(*Fahmy Seif El-Din,2008*).

This theory is based on a basic premise, which is that formal education is considered very important in order to improve productive capacity, as the supporters of this theory believe that educated people are more capable of production compared to others, and therefore the more a particular country invests in education, the greater this country's ability to Achieving economic development is easy. The supporters of this theory have built their evidence for development to occur on the basis of two basic conditions. The first condition is improving technology and raising efficiency that leads to increased production. The second condition is paying attention to using human resources and employing technology through formal education(*Zaher Diaa El-Din,2007*). The emergence of this theory had important results on economic development and accelerating the development of education, unlike the previous time period.

The concept, importance and characteristics of the economic return from spending on education.

The economic return from education is determined by the amount of net income resulting from investment spending in human capital, which is represented by capital costs and periodic costs to obtain a higher income in the future(*Tanash Osama,2007*). The economic return is also determined by income, which reflects all monetary and non-monetary benefits and benefits and the output over the period of the investment process(*Al-Hashemy Irfan,2009*). From this standpoint, the idea of the economic and social value of education was formed, which indicates that education achieves an economic return greater than what is spent on it, and its investment return may exceed many other economic projects. Education also has a social return that reflects on the individual and society. In this context, the theoretical content of the return on education is represented in the following forms of income(*Al-Arbawy Amal,2014*):

-Direct and indirect cash income: which results from investment in education, and it expresses the increase in an individual's cash income throughout his life through the amount and type of education he obtained.

-non-cash income: It is the part resulting from the investment process in education that is consumed directly through the educated individual performing some productive services to serve himself and his family without this income entering the cash flow stream.

-Psychological income: This means the degree of psychological satisfaction that an individual achieves from the moral advantages and benefits resulting from investing in the educational process, such as a feeling of security, achieving well-being, enjoying leisure time, social status, etc.

The summary of the above is that the return from education is the total income that individuals obtain after completing the various educational stages according to the level and quality of education that the individual obtained (*Abdul Aziz Al-Sunbul,2005*).

Economists have been interested in studying the economic return from education through the funds necessary to be allocated to education to achieve the goals of the economic and social plan in light of the social and individual returns that can be obtained. The importance of studying the economic return to education is to achieve the following objectives(*Al-Noury Abdel-Ghany,2009*):

-Providing those responsible for planning the educational process with basic information that helps them achieve the connection between the education strategy and the needs of the labor market.

The study of measuring the economic return from education helps clarify the relationship between this return and spending on education to demonstrate the importance of the role that education plays in economic development.

This return is useful in directing those responsible for planning educational policy to determine the direction of investment in any type of education, as well as at any specific stage, through indicators of supply and demand for the labor force.

Measuring the economic return from education plays an important role in identifying different ways to increase educational efficiency, whether through increasing return or reducing cost.

Measuring the return on education helps to make various comparisons between the economic return on education and other investment projects.

The economic return on investment in education has different characteristics from other characteristics of the return on investment in other fields, and these characteristics are represented in the following points(*Abdul Qader Ghada,2002*):

-High economic return from investment in human capital compared to other returns achieved from investments in other economic sectors.

The economic return from investment in education is characterized by a long period of time (recovery period) to obtain the desired return, unlike the return from other material investments, which require a short period to recover the capital.

-Investment in human capital is not subject to the law of diminishing returns, as a longer period of education and increased training leads to increased productivity and improved quality. This is the opposite of other physical assets, whose marginal and average productivity decreases with intensive use.

It is worth noting that some studies agree with dividing the returns to education into four main types(*Abdeen Mahmoud,2010*):

-Dividing the returns of education into individual, private and social returns. Individual returns mean the total benefits that education brings to the individual after completing the stages of study. Calculating these benefits requires a comparison between the costs of improving the educational level that the individual bears and the additional incomes that the individual receives. As for social returns, they are those that benefit the rest of society, which leads to increased income and national production and increases the state's internal and technological capabilities(*Larry, L. Leslie and Paul ,T.Brinkman,1993*). Social returns are represented in economic, political and social returns.

-Dividing education returns into consumer returns and capital returns. Consumer returns refer to the degree of satisfaction or benefit to the individual and the family for a short period, such as the degree of pleasure in the success of children and their excellence in studies. As for capital returns, they are represented in increasing the individual's productivity, influencing the individual's life and future, and his ability to acquire skills and knowledge in career advancement, and these are long-term returns.

-Dividing the returns of education into cash or non-monetary returns, where cash returns include a person's ability to save or spend well and increase income, while non-monetary returns include increasing a person's ability to create, create, innovate and understand others.

- Dividing the returns of education into social returns and economic returns, where social returns refer to deepening the sense of freedom, political belonging, and participation in developing cultural and social values and ideas, leading to achieving increased income and productivity for society as a whole. While economic returns indicate increasing the incomes of individuals and society by providing the human resources required for economic and social development.

Considerations that must be taken into account when measuring the economic return from education.

There are a group of considerations that should be taken into account when trying to measure the economic return from education, which are as follows (*Abdel Basset Israa,2009*):

-Taking into account the difference in incomes obtained by individuals, given the presence of many factors that may have an impact on the rise or fall of income from one individual to another, including factors of difference in age and gender between individuals, differences in competencies and experiences, as well as family and personal circumstances.

-The income that an individual receives throughout his working life, from the period of obtaining an academic qualification until his retirement. Therefore, this income or return obtained should be compared with the costs that the individual and society bear during the time period of his educational stages. This is affected by many factors, such as differences in wages and prices prevailing currently and in the future, economic growth rates, political conditions, and others.

-The possibility of measuring the relationship between income and productivity, which depends on market imbalances. Sometimes the income obtained due to education may represent special importance for the individual in making the educational decision, and thus it is considered an indicator for others in increasing the rate of demand for education(*Philip H .Coombs and Jacques Hallak,1987*).

-Taking into account what is known as the external effects of education when measuring the economic return from it, through the contribution of education and its role in reducing crime rates in society as well as reducing population growth.

Without a doubt, the economic return from education depends on certain circumstances and conditions in order to achieve greater results, whether on the individual or social level. But there are factors that may hinder achieving this return in the desired way or lead to its decrease, which requires taking some measures in order to overcome these factors, which are(*Gohar Saleh,2007*):

Factors related to educational loss or waste: This is a problem with different dimensions, as it increases in the initial stages of education and decreases in the following stages of the educational ladder. It is considered one of the most important factors that lead to a decrease in the economic return from education as a result of the

burdens resulting from this phenomenon, which is represented by the increase in cost for the failing student compared to other students, in addition to the decrease in the years of work and contribution to economic life by the amount of years of failure or educational loss, and thus this results in Decrease in income.
Factors related to the phenomenon of school dropout: The phenomenon of dropout is considered one of the most serious problems that lead to an increase in loss of education due to the student's failure to continue studying until the end. Among the consequences of this phenomenon is the high cost of education and low returns, so appropriate means must be taken in order to reduce From this phenomenon, we work to reduce costs and increase returns.
High costs of the educational process: The increase in education expenses and the costs associated with it leads to a decrease in the economic return from education. Therefore, it is necessary to work to reduce costs, provided that this does not affect the outcomes and quality of the educational system.
Failure to place the student in the appropriate academic major: As the process of distributing students among different majors is the only criterion for the total grades, and therefore this criterion does not take into account the motivations, inclinations and abilities of the student, which results in students enrolling in studies that are not commensurate with their intellectual inclinations and abilities. mentality, which leads to repeated failure and dropping out of education.
Not placing the graduate in the appropriate workplace for his specialty: appointing or selecting graduates in jobs that are not compatible with their studies and specializations is considered a waste of money and time, and thus negatively affects national production rates.

Criticisms directed at measuring the economic return from education.

Measuring the economic return from education faces many difficulties, the most important of which are the following(*Morsy Mounir,2009*):

-The problem of collecting the data and facts required when calculating the rate of return from education. Among the most important data that must be available when calculating the rate of return are the available statistics on individuals' incomes according to age, educational level, occupation, gender, and social class, in addition to current and capital spending on education, as well as the data required by the labor market(*Yousry Sadek,2009*).

-Not taking into account indirect economic benefits when measuring the economic return from education and sometimes relying on a cross-sectional sampling system, which leads to inaccurate indicators in making decisions related to the future(*Al-Noury Abdel-Ghany,2009*).

-Lack of ability to convert the educational sector's outcomes into monetary estimates, meaning that measuring the quantitative impact of education is closer to estimation compared to measuring the qualitative or qualitative impact of education.

-There are many and overlapping methods related to human development, and therefore it is difficult to separate the impact of education on the process of economic and social development from other factors.

-The lack of validity of differences in income between individuals as a measure for determining productivity differences between them as a result of the lack of uniformity of skills and competencies between them, and therefore it is not suitable for measuring the direct and indirect return from education(*Mustafa Samia,2007*).
Basing the estimate of the economic return of education on values and cash incomes means ignoring the consumer benefits from education, which constitutes a difficulty when measuring the economic return as a whole.
Calculating the economic return from education requires a long period of time, which constitutes difficulty in calculating the return from it compared to other projects whose returns appear quickly.
Despite the difficulties faced in measuring the economic return from education, there are some serious attempts to measure this return through the use of different methods and methods through which the economic return from education can be measured.

Methods and techniques for measuring the economic return from education.

Previous studies in measuring the economic return to education focused on income calculations or direct wages from education because they were more acceptable from an economic point of view, by comparing individual and social incomes with the educational levels of individuals(*Maureen Wood hall ,1980*).
These studies have reached important results, which are that the higher the level of education, the greater the productivity and the higher the income. Economists differed in their attempts to measure the economic return from education and were divided into three different groups(*Diab Ismail,1990*):
The first group believes that education is a human phenomenon that is higher than calculation and estimation, and therefore the economic value of education is not estimated in money, which makes it difficult to calculate it with monetary figures.
The second group believes that measuring the economic return from education consists of explaining the role of education in economic and social development at the individual and national levels, while ignoring material calculations and quantitative estimation.

Finally, the third group supports measuring the economic return from education in an absolute manner by using the same methods and standards used in measuring purely material phenomena(*Abu Kalila Hadia,2006*).
From this standpoint, the supporters of the third group believe that there are many methods that can be used to measure the economic return from education, the most important of which are the simple correlation method, the residual income method, and the direct rate of return method for education, as follows:

First: The simple correlation method.

This method includes measuring the correlation between educational growth and economic progress, meaning the link between national income and the level of educational activity. This method of comparisons over a certain period of time is useful in identifying the extent of the ability of education in the country to achieve goals in the future, in addition to comparing the ability of education within the country to achieve an increase in the gross national product and the percentage of this increase compared to another country(*Al-Adwy Muhammad,2004*).
This method is considered one of the oldest methods used to measure the economic return from education. One of the most important problems that hinder this method is the difficulty of obtaining general national income figures from the various incomes of individuals in economic activities(*Gohar Saleh,2007*). This is because some income figures are considered secret and therefore are not disclosed in public budgets. In addition to this, the spread of what is known as the phenomenon of the hidden economy, which is not included. in national income. In addition to this, it is difficult to have fixed indicators suitable for comparison between different countries due to the difference in educational systems in terms of time and methodology from one country to another. It is also difficult to determine the cause and effect relationship when calculating the correlation rate between the growth of education on the one hand and the growth of national income on the other hand, as it is not possible to know which of them is the reason for the increase of the other(*Moawad Salah El-Din,2012*).

Second: The residual income method.

This method attempts to estimate the total increase in the country's national production over a period of time by determining the relationship between the inputs and outputs of the production process, and the remaining factor or income in this case represents other unspecified factors such as the high level of skill in the labor force as well as the use of technology, knowledge, etc.
Among the most important difficulties facing this method(*Abbas Mahmoud,2005*): the lack of the necessary data and statistics, in addition to the overlapping of various factors that are difficult to identify and separate, as this method attributes the remaining income element to education, in addition to the difficulty of determining formal and informal education when determining the remaining factor and the extent of each contribution. Of them in this factor. This is in addition to the mutual relationship between physical capital and human capital, as the remaining factor may sometimes include a part of physical capital.

Third: The direct rate of return method for education.

It is called the cost-benefit analysis method, and this method is based on comparing the lifetime incomes of individuals who have more education with the lifetime incomes of individuals who have less education(*Al-Adwy Muhammad,2004*). The difference in income earned over a lifetime represents the rate of return and is expressed as a percentage of the expenses spent in order to obtain education. In this case, this method compares two groups of people: the first group, which is the one who received less education, and the second group, which is the one who obtained an education more(*Maureen Wood hall ,1980*).
Calculating this rate requires identifying(*Tanash Osama,2007*): Measuring costs, which include capital and current costs, taking into account the opportunity cost. In addition to measuring the benefits through the contribution of education to income, this data is collected by making a comparison between the income of educated and uneducated individuals during their entire careers.
One of the most important criticisms directed at this method when comparing the incomes of two groups of individuals is that this comparison may lead to incorrect results because each educational stage leads to another educational stage. Due to the difficulty of calculating the direct rate of return from education, some prefer to rely on calculating the total income earned by individuals at a certain level of education and the total cost to them at the same level, and thus the return from education can be obtained, and the return is calculated on the basis of the following steps(*Gohar Saleh,2007*):

-Calculating the total income earned by individuals of a certain educational level throughout their lives.
-Calculating the total cost of individuals obtaining the required level of education.
-Calculate total profits by subtracting total costs from total income.
-Calculate the rate of return by dividing the total profits by the total cost.

One of the most important criticisms directed at the direct rate of return method is that it is based on the assumption that the incomes and profits that individuals obtain are due to education only, which is an illogical hypothesis, as a result of the presence of other factors in generating this income other than education. It also requires accurate data and statistics that are difficult to provide(*Abbas Mahmoud,2005*).

The researcher notes the following about the three previous methods concerned with measuring the economic return to education(*Tanash Osama,2007*): The reliance of these methods on the quantitative aspect and not the quality of education. Most of them were concerned with the number of years of education without paying attention to the quality of the educational system. These methods also focused on theoretical hypotheses, which included considering education as the primary indicator of contribution to economic growth and high productivity. In addition to its focus on formal education more than informal education. Finally, it limits its measurement of the economic return from education to cash flows and neglects other returns. This may be due to the ease of measuring cash incomes compared to other non-cash returns.

Method of cost-benefit analysis of education.

This method was initially based on the descriptive analytical method compared to the quantitative method due to the lack of a scientific database(*Kheder Fayza,2005*). With the development of the information method and the provision of a database, attention was paid to the quantitative aspect of cost-benefit analysis, that is, the precise and clear identification of the various cost items and returns, taking into account the time element, to show the extent of development that has occurred in these items compared to previous years (*James J.Heckman, Lance Lochner, Christopher Taber,1999*).

Applying the cost-benefit method requires the following(*Kheder Fayza,2005*): The need to precisely define goals. These goals may be multiple, ranging from achieving the optimal benefit, the minimum cost, or matching the benefit and cost by achieving the highest percentage when investing in human capital. Also identifying the proposed alternatives in light of selecting a limited number of alternatives that can be applied according to the experience and competence of the experts concerned with studying the feasibility of investing in this type of education. In addition to identifying the considerations that must be taken into account when comparing between the proposed alternatives, which are maximizing the return while maintaining the fixed cost, reducing costs while stabilizing the return, or maximizing the difference between the cost and the return in the event that it is not possible to fix both of them.

The cost-benefit method expresses the comparison of the costs of the investment project with the expected return from it in order to determine the extent of its economic feasibility, whether for the individual or the state. It is worth noting that this method can be applied in all investment fields, whether financial or human. The relationship between the cost of the investment project and its return is of great importance, especially in the process of distributing limited financial resources(*Elchanan Cohn and Terry G .Geske ,1990*). Because the use of this method in calculating material investments may differ from human investments, it faces some problems, especially when measuring the economic return from human investments in education(*Al-Noury Abdel-Ghany,2009*).

Cost-benefit calculations are also considered by all economists, planners, businessmen, and the state to be the main guide in distributing available resources on sound scientific foundations when thinking about future projects, in order to demonstrate the best available alternatives when making the investment decision. The importance and benefit of this method becomes clear through(*Morsy Mounir,2009*): directing planners to the best appropriate methods for investment in the different stages of education. In addition to proposals related to means of increasing educational efficiency, whether through reducing costs or increasing returns. It also helps to clarify the relationship between the proportionality of spending on the educational process and the requirements of the labor market, and directing financial resources towards the different educational stages with high returns. In addition, it helps to give a clear picture regarding determining the supply and demand for manpower in order to predict manpower needs.

There are a number of justifications that led to the interest in adopting this method in education, including the following(*Al-Ghandour Mustafa,2006*):

- Viewing the education process as one of the sources of economic development through the clear role that education plays in achieving progress and increasing production. The experiences of many countries have shown the importance of education and its planning in supporting the development process. Given the importance of education in developing countries, and the clear impact it plays on the state budget in light of limited economic resources, it was necessary to apply some economic calculations, including the method of determining cost and return in the field of education, to achieve full benefit from spending on the various stages of education and obtain outputs that are appropriate. Quantitatively and qualitatively with the requirements of the labor market(*Maureen Wood hall ,1980*).
- The necessity of linking economic and scientific planning, as economic and social development is considered one of the basic pillars of countries at the present time, which requires preparing human resources to face future challenges, which means the urgent need for educational planning based on sound foundations.
-Reconsidering the traditional concept of human capital, which necessitates the necessity of working to keep human resources abreast of these developments by paying attention to calculating the cost and return of the educational process.
-Increasing pressure on certain stages and types of education compared to other stages, such as increasing demand for university education in contrast to other types of education without taking into account the requirements of economic and social development, which requires the importance of using cost-benefit analysis to confront the problem of imbalance between the different educational stages.

- The urgent need for planning related to the quality of graduates to maintain the quantitative and qualitative aspects of labor market requirements in light of the balance between academic and vocational education, and this can only be done through cost-benefit calculations for these different types of education(*John .O.Enaohwo ,1990*).

Advantages of applying the cost-benefit analysis method in education.

The application of this method achieves many advantages, including(*Abdel Wahab Samir,2004*): It occupies a leading position in the field of economic feasibility studies for investment in education, on the basis that each stage of education has a specific return and cost. It is also considered one of the most important methods in determining the economic value of education as a result of its focus on gains and other methods. The other aims to increase the monetary returns of education compared to other methods. It is also one of the most widespread accounting methods in the field of education, with the aim of providing relevant decision-making bodies with indicators of the expected income for investment in education, which helps in making decisions regarding rationalization of spending.

In addition, it helps in analyzing the relationship between education and individual and national income in order to clarify the role of education in economic development. It is also useful in providing decision makers with the necessary information about the balance between supply and demand for different categories of educated human resources. It also helps in achieving the optimal allocation of resources between different uses. In addition, it is useful in clarifying the relationship between social investment in education and the goals and problems of economic growth, employment and distribution in the country(*Al-Obaidy Seelan,2009*).

Disadvantages of the cost-benefit analysis method in education.

The cost-benefit calculation method faces many criticisms, the most important of which is(*Elchanan Cohn and Terry G .Geske ,1990*): the difficulty of determining the increase in individuals' incomes that is due to an increase in the educational level individually, as this approach neglects to measure indirect economic benefits, and therefore the income levels of individuals are not due to education alone but are linked to other factors such as Personal abilities, level of intelligence, and family class to which the individual belongs. In addition to the inaccuracy of the techniques and methods used in this entry, income data are based on cross-sectional samples that reflect situations of supply and demand in the past period.

This method also assumes that the income of individuals with different levels of education in relation to the labor market reflects their relative productivity, and this assumption is contrary to the truth, as wages are characterized by a noticeable degree of relative stagnation, in addition to other non-productive factors that determine the wage structure, such as union intervention, wage policies, the strength of negotiations, and others(*Morsy Mounir,2009*). This is in addition to neglecting the social return of external savings, whether positive or negative, which means the wasted resources that investment in education may lead to, represented by the additional expenses whose burden is borne by society as a whole. Finally, the cost-benefit analysis method assumes that the cost of education is considered a net investment, which means it neglects the consumer benefits from education(*Al-Obaidy Seelan,2009*).

Methods used in the cost-benefit analysis of education:

There are three basic methods upon which the method of cost-benefit analysis of education is based, which depends on determining the present value of the returns and comparing them with the present value of the cost of investing in education during a certain period of time. These methods are summarized as follows(*Kheder Fayza,2005*):-

Calculating the ratio of return to cost from education:

This means calculating the ratio of the present value of the expected return from investment in education to the present value of the cost of this investment, after deducting both the cost and the return on the basis of the discount rate that is chosen. This method is symbolized by the following equation(*Zaher Diaa El-Din,2007*):

Net returns / costs = present value of net returns / present value of costs

When the ratio of the present value of net returns to the present value of costs is greater than one, the investment project is appropriate and vice versa.

Net Present Value Model: This method does not differ much from the first except in that it is based on excluding the present value of the investment cost from the expected return from it. The net present value represents the difference between cash inflows and outflows and is symbolized by the following formula(*Feleh Farouk,2003*):-

Discount factor x cash inflows - cash outflows for the year zero = zero

If the difference between them is equal to zero or a positive value, then the decision is acceptable.

The internal rate of return method for investment: This means searching for the discount rate that can be applied to both the cost and the return on investment, which makes the present value of the net return expected from it equal to zero. This method differs from the previous two methods in how the discount rate is determined, as the discount rate in the previous two methods is chosen in advance and represents the

prevailing interest rate in the market, while the discount rate in this method is extracted in an instantaneous manner(Jad Mounir,2005).

Research results and recommendations.

From the above, the researcher concludes some observations that must be taken into account in light of the cost-benefit analysis of education in most countries of the world, including:

- Social costs increase as the stages of the educational process increase, and thus private costs also increase, but less quickly than the first.
- The widening gap between social and private costs has led to an increase in demand for education, especially higher education.
- There is a structural imbalance between the demand for education and the needs of the labor market as a result of the quantitative increase in the number of graduates compared to the available jobs.
- There is a conflict between the investment policy in education from the point of individuals or the private sector and the point of society.

This requires the need to reconsider education policy by expanding in technical education and reducing general education. In addition the need to increase investment in human capital through vocational, administrative training and qualification in light of a comprehensive national plan in order to participate the individuals in bearing part of the costs of their education at the various stages of education.

Conclusion:

Education is considered a form of investment in human capital, because of its economic, social, political and cultural benefits to the individual and society. Economists have paid attention to the economic value of education with the aim of determining the role of education in economic growth, as well as determining the expected economic return from education at its various stages. Investing in education must have a return, and the problem is not in the existence of the return, but in how to measure this return. Economists have differed in their attempts to measure the economic return from education. There is a group that believes that education is a human phenomenon that is higher than calculation and estimation, and therefore the economic value of education is not estimated in money, which makes it difficult to calculate it in money. While another group believes that measuring the economic return from education consists of clarifying the role of education in economic and social development at the individual and national levels and ignoring material calculations and quantitative estimation.The economic return from education requires certain conditions in order to achieve greater results, whether on the individual or social level. But there are factors that may hinder achieving this economic return or lead to its decrease, which requires taking some measures to confront them.

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