УДК 330.341.13

I. V. Novikova, Jihan Melhem Lakkis
Belarusian State Technological University

ROLE OF HUMAN CAPITAL IN ECONOMIC DEVELOPMENT: PROBLEM STATEMENT

Intellectual and human capital is regarded by modern science as renewable sources of productivity. Economic growth is an increase in an economy's ability, compared to past periods, to produce goods and services. Human capital is directly related to economic growth. The relationship can be measured by how much is invested into people's educations. Human capital should be a key driver for the portfolio needs of an investor and should be hedged by financial capital.

Key words: intellectual and human capital, education and training, tangible asset, intangible assets, goodwill, risks.

Introduction. The theory of human capital is relatively new in finance and economics. It states that companies have an incentive to seek productive human capital and to add to the human capital of their existing employees.

In the 1960s – 1970s economists Gary Becker and Theodore Schultz pointed out that education and training were investments that could add to productivity [1, 2]. As the world accumulated more and more physical capital, the opportunity cost of going to school declined. Education became an increasingly important component of the workforce. The term was also adopted by corporate finance and became part of intellectual capital.

Main part. Intellectual and human capital is treated as renewable sources of productivity. Organizations try to cultivate these sources, hoping for added innovation or creativity. Sometimes, a business problem requires more than just new machines or more money.

The possible downside of relying too heavily on human capital is that it is portable. Human capital is always owned by the employee, never the employer. Unlike structural capital equipment, a human employee can leave an organization. Most organizations take steps to support their most useful employees to prevent them from leaving for other firms.

Not all economists agreed that human capital directly raises productivity. In 1976, Harvard economist Richard Freeman believed that human capital only acted as a signal about talent and ability; real productivity came later through training, motivation and capital equipment. He concluded that human capital should not be considered a factor of production [3].

Human capital and economic growth have a strong relationship. Human capital affects economic growth and can help to develop an economy through the knowledge and skills of people.

Human capital refers to the knowledge, skill sets and motivation that people have, which provide economic value. Human capital realizes that not everyone has the same skill sets or knowledge and that quality of work can be improved by investing in people's education.

Economic growth is an increase in an economy's ability, compared to past periods, to produce goods and services.

For example, suppose a country increased its real GDP at an annual rate of 2.5%. This country is experiencing economic growth and has an increase in the value of all goods and services.

Human capital is directly related to economic growth. The relationship can be measured by how much is invested into people's educations. For example, many governments offer higher education to people at no cost. These governments realize that the knowledge people gain through education helps develop an economy and leads to economic growth.

A company can help increase human capital and increase economic growth as well. For example, consider a computer programmer works at a technology company; she receives on-site training, attends seminars and the company pays for part of her tuition for higher education. If she decides to stay at the firm, she may develop new ideas and new products for the company. However, she may leave the company later in her career and use the knowledge she attained to start a new company. This investment in human capital, then, eventually leads to economic growth.

Capital is the lifeblood of a corporation. It allows a business to maintain liquidity while growing operations. In business, capital is generally used to refer to physical assets. It is also used to refer to the means in which companies obtain physical assets. Cash, real estate, equipment and inventory are examples of physical capital. Physical capital values are listed in order of on the balance sheet. The balance sheet provides an overview of the value of all physical and some nonphysical assets. It also provides an overview of the capital raised to pay for those assets, which includes both physical and human capital.

Human capital is represented by more than the company brand. Harvard University is not Harvard University because of its crimson logo. The value of Harvard University is in its human capital. Human capital includes the knowledge base of the employees and is often measured by the quality of the product. It also refers to the network of the employee base and the general level of influence they have on the industry [4].

Physical capital is recorded on the balance sheet as an asset at historical cost, not market value. As a result, the book value of assets is generally higher than market value. Accountants refer to physical capital as a tangible asset.

Intangible assets are non-physical capital. A balance sheet only lists when they have identifiable values. Intangible assets can't be touched, but they are often represented by a legal document or paper [5].

Examples of intangible assets include intellectual property such as brands, patents, customer lists, licensing agreements and goodwill. Goodwill is created when one company acquires or purchases another and the purchase price is more than the physical assets being purchased. The difference is recorded as goodwill and one of the largest components of goodwill is human capital. In fact, is one of the only places where an analyst can find a value for human capital on the balance sheet.

Unlike physical capital, which is easy to find on the balance sheet and in the notes to the balance sheet, the value of human capital is often assumed. In addition to goodwill, analysts can value the impact of human capital on operations with efficiency ratios, such as (ROA) and return on equity (ROE). Investors can also determine the value of human capital in the markup on products sold or the industry premium on salary. A company is willing to pay more for an experienced programmer who can produce a higher-margin product. The value of the programmer's experience is captured in the amount the company is willing to pay over and above the market price.

While human capital can be difficult to measure, the impact of investments in human capital can be measured and analyzed with the same ratios used to measure and analyze the investment performance of physical assets. Investments in physical and human capital both lead to fundamental improvements in the business model and better overall decision-making [6].

Financial capital includes tradable assets such as stocks, bonds, mutual funds, real estate and commodities. Human capital, while often overlooked when building a portfolio, consists of the economic present value of income for future labor.

Typically, young investors starting out their wealth accumulation have more human capital than financial capital. On the other hand, a retired worker has more financial capital than human capital, as her wealth-accumulation phase probably has come to an end. Exceptions apply in some cases – young millionaire entrepreneurs, for example. However human capital should be considered an asset with its own unique risks and rewards in all investing cases. Also, it is important to keep in mind that human capital's correlation with the stock market is an important element of asset allocation and should not be overlooked when making any type of investment decision.

The purpose of diversifying assets is to generate the maximum return with the lowest risk. Thus, human capital should be thought of as an asset class that should be part of every portfolio. While illiquid and non-tradable, human capital should be a key driver for the portfolio needs of an investor and should be hedged by financial capital – not the other way around.

One of the key aspects for understanding the value of human capital is taking into account its risks. Characteristics and risk types of human capital differ for different individuals. They can be classified as or, based on the profession or income-generation activity of the investor. In building wealth, investors should balance the risk level of their human capital with the risk level of their financial capital.

Conclusion. This article describes theoretical approaches to understanding human capital. For a better understanding of its role in economic development must be considered examples, special cases, which illustrate in practice the above theoretical approaches. They will be presented in the following article. The cases should be illustrated how human capital can be considered a risk-free or a risky asset, and how it could be used in the development of asset allocation decisions.

References

1. Becker G. Human Capital: A Theoretical and Empirical analysis, with Special Reference to Education. New York, National Bureau of Economic Research, 1964. 187 p.

2. Schultz I. The Economic Value of the Education. New York, Columbia University Press, 1963. 92 p.

3. Freeman R. The Market for College-Trained Manpower. Harvard, Harvard University Press, 1971. 264 p.

4. Human Capital Theory: Assessing the Evidence for the Value and Importance of People to Organizational Success. Technical Report. May 2017. Available at: https://www.cipd.uk/Images/human-capital-theory-assessing-theevidence-tcm18-22292.pdf (accessed 06.01.2018).

5. Intellectual Capital. Available at: http://www.investopedia.com/terms/i/intellectual_capital.asp (accessed 08.01.2018).

6. Return on Assets – ROQ. Available at: http://www.investopedia.com/terms/r/returnonassets.asp (accessed 08.01.2018).

Information about the authors

Novikova Irina Vasil'yevna – DSc (Economics), Professor, Head of the Department of Management, Business Technology and Sustainable Development. Belarusian State Technological University (13a, Sverdlova str., 220006, Minsk, Republic of Belarus). E-mail: xenia2012@belstu.by

Lakkis Jihan Melhem – PhD student, the Department of Management, Business Technology and Sustainable Development. Belarusian State Technological University (13a, Sverdlova str., 220006, Minsk, Republic of Belarus). E-mail: jihanlakkis78@hotmail.com

Received 18.01.2018