

THE ROLE OF HIGHER EDUCATION IN ECONOMIC DEVELOPMENT

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Abstract

The relationship between higher education and economic development has been a subject of interest for policymakers, educators, and economists for many decades. It was Schultz who conducted a methodical analysis of how education contributes to economic expansion. Initially examining the disparity in income level between various worker categories, he concluded that health and education are the primary causes of the income gap and further clarified that the reason for the income difference is the difference in labour productivity. He thought that human resources comprised of both the quantity as well as the quality of labour , and he primarily concentrated on the abilities and know-how of those who could raise labour productivity. Higher education is all about enhancing students' abilities and productivity—which raises students' income and fosters economic growth. Thus higher education plays an inevitable role in the process of the economy's growth and development. This article delves into the various ways higher education impacts economic development, providing a comprehensive overview of its contributions and the challenges it faces.

Keywords: Higher Education , Economic Growth and Development , Income Equality, Human Capital Formation , Global Competitiveness , Employability.

INTRODUCTION

"When I travel around the country, meeting with students, businesspeople, and others interested in the economy, I am occasionally asked for investment advice.... I know the answer to the question, and I will share it with you today: Education is the best investment." **Former Federal Reserve Chair Ben Bernanke.**

The relationship between higher education and economic development has been a subject of interest for policymakers, educators, and economists for many decades. It was Schultz who conducted a methodical analysis of how education contributes to economic expansion. Initially examining the disparity in income level between various worker categories, he concluded that health and education are the primary causes of the income gap and further clarified that the reason for the income difference is the difference in labour productivity. He thought that human resources comprised of both the quantity as well as the quality of labour , and he primarily concentrated on the abilities and know-how of those who could raise labour productivity. Higher education is all about enhancing students' abilities and productivity—which raises students' income and fosters economic growth. Thus higher education plays an inevitable role in the process of the economy's growth and development. This article delves into the various ways higher education impacts economic development, providing a comprehensive overview of its contributions and the challenges it faces.

Higher Education and Economic Growth – Two major aspects

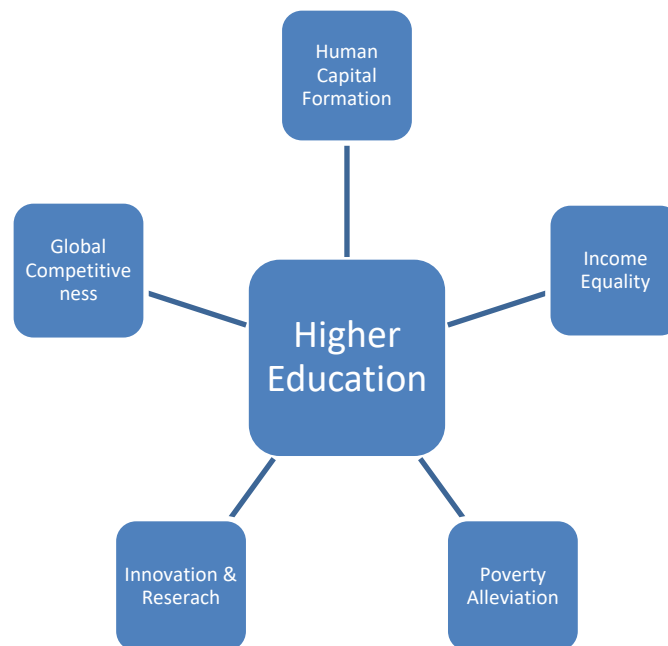
There are two major aspects through which higher education affects economic growth. One is the same as Schulz's improvement of individual ability, and the internal effect of human capital, which directly affects the production process. Second, is the external effect of human capital, as conceived by Lucas. It is the comprehensive effect of human capital on the whole society, which has the characteristics of increasing

marginal benefit (Lucas, 1988). It highlights how technological innovation is determined by the human capital as well as by the knowledge and technology that the entire community already possesses.

Impact of Higher Education on Economic Development

Higher education plays a critical role in fostering economic growth. By providing individuals with the skills and knowledge needed to succeed in a dynamic and increasingly globalized economy, higher education helps build a more competent and versatile workforce. Additionally, through research and innovation, it contributes to technological advancements that drive productivity and economic expansion. The economic impact of higher education extends beyond immediate job creation and income generation; it also encompasses broader societal benefits such as improved health outcomes, enhanced civic participation, and increased social cohesion. Investment in education is the key to economic growth for a developing country like India. The following figure depicts the impact of higher education on economic development :

Figure-1: Impact of Education on Economic Development



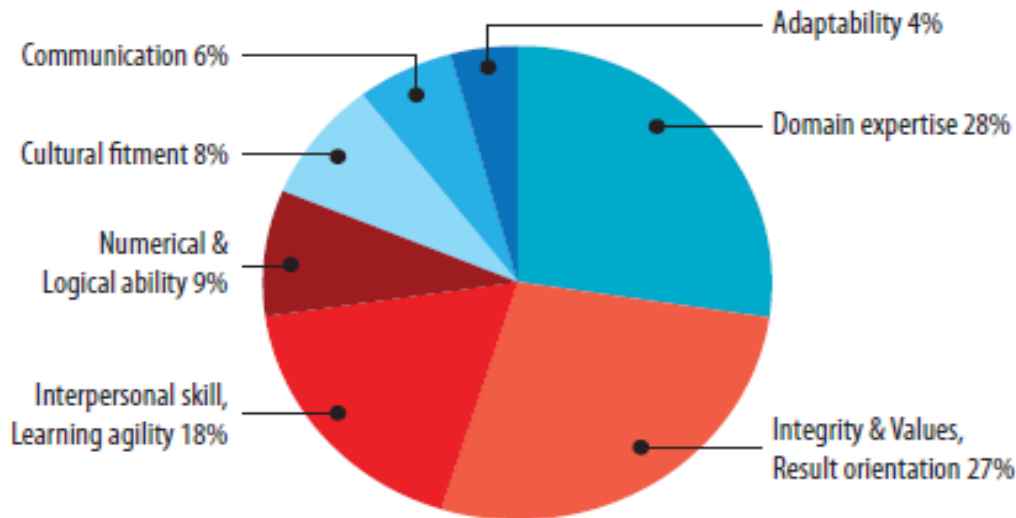
Human Capital Formation

Higher education is integral to the development of a skilled and knowledgeable workforce. It provides specialized training and education that equips graduates with the expertise needed in various industries. This training includes not only technical skills but also critical thinking, problem-solving, and communication abilities. The shift towards a knowledge-based economy has increased the demand for such skills, making higher education more relevant than ever.

For example, engineering programs at universities often integrate practical experience through internships and co-op placements, ensuring graduates are well-prepared for their careers. Business schools emphasize case studies and real-world problem-solving to prepare students for leadership roles in various sectors. Similarly, medical and healthcare programs combine classroom instruction with hands-on clinical training to produce competent healthcare professionals. Thus through experiential teaching-learning pedagogy higher education equips the students to face the challenges of real life as this learning remains with the students forever as quoted by Confucius **“I hear and I forget. I see and I remember. I do and I understand”**.

In addition to technical skills, higher education institutions also focus on developing soft skills that are essential for career success. The India Skill Report 2016 has highlighted various skills required for a successful business. According to this report, business leaders must possess both soft as well as hard skills so they can execute tasks to drive results and empower their team to do the same, no doubt that higher education plays a vital role in imparting these skills among students. Courses in liberal arts and humanities play a crucial role in fostering these skills, helping students to think critically, analyse complex issues, and communicate effectively.

Figure 2: What Businesses are looking for?



Sample Size: 5,20,000 Students, Across 29 states, 7 UTs
150+ Employers

Source: India Skill Report, 2016

Higher education offers opportunities for continuous learning and professional development, allowing individuals to update their skills and remain competitive. As industries evolve and new technologies emerge, the need for continuous skill development becomes increasingly important. Higher education provides avenues for lifelong learning through continuing education programs, professional certifications, and online courses. For instance, many universities offer executive education programs that help professionals stay current with industry trends and advancements. Online learning platforms have also made it easier for individuals to pursue lifelong learning at different stages of their careers. These programs enable workers to acquire new skills, switch careers, or advance in their current fields without the need to attend traditional on-campus classes.

ROLE OF HIGHER EDUCATION IN INNOVATION AND RESEARCH

Universities and colleges are major contributors to research and development (R&D) and innovation where new ideas and technologies are developed. Collaboration between academia and industry often leads to the commercialization of new products and services, further stimulating economic activity. Moreover, universities often serve as hubs for interdisciplinary research, bringing together experts from various fields to tackle complex problems. This collaborative approach can lead to innovative solutions that have far-reaching economic and societal impacts. For example, research in sustainable energy technologies can contribute to environmental sustainability while also creating new business opportunities and jobs. Start-ups and spin-offs emerging from university research contribute to job creation and economic diversification.

Higher Education Raises Socio-Economic Status and Promotes Economic Equality

By providing access to education, higher education enables individuals from diverse backgrounds to improve their socio-economic status. Scholarships, grants, and affirmative action policies help ensure that higher education is accessible to underprivileged and disadvantaged groups. This inclusivity helps bridge the gap between different socio-economic classes and creates a more inclusive higher education system that fosters social mobility and reduces economic disparities.

Education is one of the most effective ways to reduce income inequality. Higher education increases individuals' earning potential and provides opportunities for career advancement. As more people gain access to higher education, the workforce becomes more skilled, and the income distribution becomes more equitable. Studies have shown that individuals with higher levels of education tend to earn more over their lifetimes compared to those with only a high school diploma. By expanding access to higher education, societies can create a more equitable distribution of income and wealth.

Research has indicated that people with more education typically make more money in their lives than people with just a high school certificate. Societies can achieve relatively fair wealth and income distribution by increasing access to higher education. According to a recent analysis (2023) comparing the expenses and advantages of attending the college, it is concluded that a college degree remains a wise financial investment. Three economists associated with the Federal Reserve Bank of St. Louis, Scott A. Wolla, Guillaume Vandembroucke, and Cameron Tucker, carried out the research. They looked at the financial advantages of attending college, including the so-called "college wage premium," which refers to the amount of money that graduates make over non-graduates. "The rates of return on a college education vary greatly across time, gender, and race," but, according to the authors, "they are still considered higher than the returns on financial assets, such as stocks and bonds." Furthermore, according to the research conducted by the Organisation for Economic Co-operation and Development (OECD), people who have completed their higher degree make much more money overall than people who have only completed their secondary education.

Global Competitiveness

In a globalized economy, higher education plays a crucial role in fostering international collaboration which is very crucial in addressing complex challenges that transcend national borders, such as climate change and public health crises. Exchange programs, international research partnerships, and global campuses enhance the flow of knowledge and innovation across borders. Graduates with international experience and a global perspective are better equipped to operate in a diverse and interconnected world. For example, the collaboration between universities in different countries on COVID-19 vaccine research demonstrates the importance of international cooperation. International research collaborations can also lead to significant scientific and technological advancements. For instance, the European Organization for Nuclear Research (CERN) is a prime example of how international collaboration in higher education can result in groundbreaking discoveries. Such collaborations not only advance knowledge but also contribute to economic growth by fostering innovation and the development of new technologies.

Higher education institutions attract students and researchers from around the world. This influx of international talent enriches the academic environment and contributes to the host country's economy through tuition fees, living expenses, consumer expenditure, and cultural exchange. Moreover, international students often bring new ideas and perspectives, fostering a culture of innovation and inclusivity. Additionally, many international students choose to stay in the host country after graduation, contributing to the local economy through their skills and expertise. For example, international students in the United States contributed approximately \$44 billion to the U.S. economy during the 2018-2019 academic year through tuition, living expenses, and other expenditures. This economic impact highlights the importance of attracting and retaining international talent to drive economic growth and innovation.

Challenges

Despite its crucial role in economic growth, Higher education is facing certain challenges which require immediate attention. Rising tuition costs and the ensuing student debt are two major issues affecting higher education. The cost of a college degree is rising year on year basis, which is a concerning issue, particularly in light of the nation's employment rate being so low. A recent study conducted by BankBazaar also reveals that schools and colleges have been witnessing inflation of 11 to 12% compared to overall Consumer Price Index (CPI) inflation of 6%. Particularly for students from low-income families, exorbitant expenses might make higher education more inaccessible. More public support for higher education, the implementation of income-based loan repayment schemes, and the generating scholarship opportunities are just a few of the creative solutions needed to address this problem.

Alignment with Labour Market Needs for Generating Employment

Keeping higher education programs in line with the demands of the labour market is another important issue of concern. Many a times, companies have different requirements for skills than what is taught in academic programs. The lack of employable skills among Indian youth has caused employers' dissatisfaction, according to the Skill Financing Report 2023. Practical skills are lacking in about 78% of the nation's youth. Moreover, the research stated that India is ranked 60th in the world for overall skill competency. The lower skill level in Indian manufacturing is responsible for just \$8,076 average value addition per employee in 2021, according to S&P Global Market Intelligence. This value is significantly in comparison to many developing countries. This skills shortage is a key risk for manufacturers wanting to move up the value chain, jeopardizing India's bid to be a manufacturing hub.

Another challenge in this regard is rapidly changing technology and the advent of AI, posing a threat to the workforce available. Higher Education Institutes in general have not been successful in creating a workforce to

cater to the requirement of fast-changing technology in present times. 'India's Graduate Skill Index: 2023' a report, published by an online talent assessment company, revealed that finding candidates with high employability in non-technical skills is easier than finding candidates with high job-readiness for technical skills. AI is generating new job prospects, but it's also driving away jobs, especially in sectors of the economy that primarily rely on repetitive and routine work. A report released by the World Economic Forum projects that by 2025, artificial intelligence will have replaced 75 million jobs worldwide while also creating 133 million new ones. This indicates that there will be a net gain of 58 million jobs worldwide, while there will be notable employment displacement in some sectors of the economy. In a situation like this, the nation may face significant challenges in providing laborers with the education and training necessary to enable them to transition into other roles. According to the Global Business Coalition for Education (GBC-Education), United Nations Children's Fund (UNICEF), and the Education Commission, more than 50% of Indian youth are not on track to have the education and skills necessary for employment by 2030.

Technological advancement needs to grow hand in hand with upgraded skills. Quality education, raising awareness of new college and university educational programs around the world, mentorship programs, career guidance, and the development of competitive skills through training and internships are all ways to make this achievable. This approach can surely make the youth aware, talented, confident, and ready to compete with their global peers. This requires ongoing collaboration between academia and industry to identify skill gaps and develop relevant curricula.

Work-integrated learning opportunities, such as internships and co-op programs, can also help bridge the gap between academic training and industry needs. These programs provide students with practical experience and exposure to real-world work environments, enhancing their employability upon graduation. By aligning educational programs with labour market demands, higher education institutions can better prepare students for successful careers.

CONCLUSION

Higher education is a critical driver of economic development, contributing to workforce development, innovation, social mobility, and global competitiveness. However, to maximize its impact, it is essential to address the challenges of rising costs and alignment with labour market needs. By fostering inclusive and relevant educational opportunities, higher education can continue to be a powerful engine for economic growth and societal progress.

Higher education institutions must adapt to changing economic and social landscapes to remain relevant and effective in promoting economic development. This requires a commitment to innovation, inclusivity, and collaboration with industry and international partners. By addressing the challenges and leveraging the opportunities presented by higher education, societies can create more equitable and prosperous economies.

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