Education as a Pillar of Defining Human Capital. Implications of the Academic Environment

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Abstract

In contemporary policy discussions on higher education, the idea that this environment is in danger of becoming isolated from the world, ignoring the wishes and needs of society at large, is a constant background. From a historical point of view, it is mostly true that the academic spectrum has been rather impermeable in both directions: the knowledge generated and transmitted within it was very little based on the outside world and less concerned with its application to the problems of the outside world. In the globalised world of the 21st century, this kind of impermeability is no longer possible. The expansion of higher education systems in all regions has brought new socio-economic groups into the educational environment, with a greater diversity of cultures, levels of academic preparation, and expectations. In order to gain a better insight into the topic, we used an examination approach by overlaying information from different sources of exploration and analyzing the level of comparability over time. This paper examined the main characteristics of education as a pillar for defining human capital and its effects on academia. The findings are explained in the conclusion section, but it is mandatory to specify one conclusion regarding the fact that the costs of academic expansion have also led to increased pressure from governments to justify state funding, a justification that is usually couched in terms of direct and measurable social and economic impact.

Keywords: Academic Ecosystem Management, Education, Human Capital.

1. Introduction

It has become something of a cliché to compare academia to an ivory tower. The idea that this ecosystem is in danger of becoming isolated from the world by ignoring the wishes and needs of society at large is a permanent part of contemporary political discussions on higher education. Historically, it is mostly true that the membrane of academia was fairly impermeable in both directions: there was very limited reliance on the knowledge generated and transmitted within it to the outside world and very little concern for its application to the issues of the world outside.

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This type of impermeability is no longer possible in the globalised environment of the twenty-first century. With the expansion of higher education institutions in all countries, new socioeconomic groups have entered the educational environment, bringing a wider range of cultures, degrees of academic preparation, and expectations. The university degree's now dominant position as a sorting mechanism for employment has increased pressure on institutions to train professionals and employees for the labor market. The costs of university expansion have also raised government pressure to justify public financing, which is typically couched in terms of direct and verifiable social and economic impact. In certain situations, universities have made social justice-oriented attempts to interact more with marginalized populations outside their walls.

These approaches have been supplemented by a broader emphasis on policy and societal

consequences. According to this logic, policy decisions should be based on evidence rather than dogma, and any intervention in the social area, for example, should have an impact assessed in the same manner that medical therapies do. Despite concerns about the unavoidably biased nature of evidence and the extent to which social phenomena lend themselves to this style of review, this method has had a substantial influence on all forms of policy, including international development policy. Investments made by bilateral assistance agencies must be justified to taxpayers based on their impact, as must those made by non-governmental organizations to their funders [1].

This tendency has been paralleled by a simultaneous shift in education from quality assessment in terms of inputs (school buildings, teacher certifications, etc.) to quality assessment in terms of outputs (primarily learning results evaluated by standardised exams). The convergence of these developments has resulted in a renewed emphasis on measuring and comprehending the impact of higher education on development.

All countries share concerns about the influence of higher education. This interest arises in part from the pressure on public finances and the necessity to justify the allocation of taxpayers' money. Concerns stem from the exceedingly high expectations placed on colleges to address some of our era's most complicated and serious concerns, such as global warming, a rising global population, and developing epidemics. This need to demonstrate influence is understandably greater in poor countries of the Global South. In such circumstances, public monies are much more in demand, societal concerns are more acute, and the concentration of privilege in the hands of a few is frequently more extreme [2].

This study presents a variety of empirical research that demonstrate these impacts in poor and lower middle income nations, and it exposes education as a key component of the concept of human capital. A variety of advantages of higher education may be intuitively understood by individuals who work or study at universities, but the lack of rigorous documentation restricts the extent to which arguments can be made to alter policy and assistance flows. This absence of evidence has significant ramifications in the context of the post-2015 development agenda debates [3]. Although development agencies are increasingly recognizing higher education's critical role, the weight of the evidence has not yet been sufficient to overcome residual perceptions that higher education is either useless to development or only benefits a privileged few. However, the evidence that does exist provides critical support for the claim that universities can have a positive impact on society in a variety of ways, some of which are underappreciated or undervalued in today's human capital setting.

2. Materials and methods

Using the keywords economic growth, economic development, human capital, econometric quantification, education, human capital investment, rate of return on investment, internal rate of return, and short-term return on income, we examined Google Scholar, Research Gate, Emerald Management, Science Direct, and Spring Link databases, as well as databases of publications dealing with topics that are similar to the research thesis, in order to conduct this research article and obtain the necessary meta-analysis. Except for the standard classical benchmarks that are required to support the concepts, we have established a ten-year benchmark. From the initial round of searches, 85 papers with similar titles, ideas, and topics were found. Consequently, 44 articles had to be removed from areas of interest outside the scope. After that, we found the remaining abstracts. In the end, irrelevant articles were removed, leaving 29 papers in the final batch, which can be seen in the scientific article's bibliography.

3. The historical context of academic influence in society

Prior to tending to the ongoing group of proof exhaustively, recognizing the long history of college commitment with society in a great many social contexts is useful. The notion of higher education as a public good, on the other hand, has a much more ingrained history, despite the fact that the manner in which universities interact with the general public has evolved over time [4]. In

contrast, the idea of universities as engines of economic growth is a relatively recent phenomenon that is primarily supported by the rise of the so-called knowledge economy.

Due to their focus on training future church and state leaders and their limited enrollment, early higher education models in low-income countries were highly elitist. However, despite the unequal nature of these models, the institution's training of leaders was regarded as a public good. This idea has resulted in government-funded scholarships for those who are able to enroll in higher education in numerous contexts with lower incomes.

In the late 1960s and early 1970s, these early models were widely criticized for being out of touch with the local population and dependent on previous colonial powers. Public universities in many newly independent states were modeled after metropolitan universities after independence [5]. Notwithstanding, as discussions about restricted financial improvement in low-pay settings produced groundbreaking thoughts regarding reliance and underdevelopment, this replication of Western models went under assault. Higher education institutions were encouraged to adopt indigenization policies, in which expatriate teachers were replaced by local staff and new curricula were proposed that focused on local languages and cultural traditions, as nationalist leaders advocated autonomy and self-reliance from Western control. Incorporating higher education's role as a preserver, defender, and advocate for local traditions and values, this era altered the understanding of higher education's contribution to society beyond the conventional notion of leadership development [6].

New models of university engagement with society in so-called developing contexts have also been encouraged as a result of criticisms of the elitist nature of higher education. The Cordoba reforms, which took place in Argentina in 1918 and called for a greater level of interaction between public universities and the general public, led to the revival of the public university throughout Latin America. Comparable changes occurred in Africa during the 1970s, following the African Colleges Affiliation's call for colleges to turn out to be more formative, zeroing in their exploration endeavors on pressing improvement needs and connecting all the more productively with the networks around them [7].

However, since the 1980s, the concept of higher education as a public good has waned globally. Economic globalisation, which increased pressure on nation states to improve their economic competitiveness, and neoliberal policies of international organizations such as the World Bank, which framed higher education as a private benefit rather than a public good, fundamentally altered the nature of university engagement in society. Universities are increasingly required to generate revenue from their engagement with society, and the corresponding contribution they make is primarily through economic pathways, such as producing employable graduates, developing research to support industry productivity, and engaging more directly with the private sector. The economic benefits of higher education are prioritized over the non-economic benefits in this conceptualization of university participation.

In this context, we aimed to broaden our understanding of how higher education benefits society by looking into evidence of economic and non-economic impact. An evaluation of impact necessitates the consideration of three critical questions: who or what is affected? What kind of influence? And how does this have an effect?

On the first point, universities can have an impact on a variety of people, groups, and institutions. The primary group of interest is, of course, students - those enrolled in formal university courses, either at the undergraduate or graduate level. However, the university can have an impact on a variety of other stakeholder groups, including government and other organizations that seek research and assistance, as well as local communities around the institutions with whom it can engage in various ways. More broadly, certain of the university's functions can be considered as indirectly influencing everyone in society. The potential consequences are similarly diverse. Economic advantages are the most commonly emphasized in public discourse, either directly through wage increases or indirectly through national economic growth. However, there are a variety of potential non-economic benefits, such as increased health and well-being, increased political engagement and democratization, and environmental protection.

Finally, there are numerous ways to achieve influence. These means are best understood through what are commonly referred to as the

university's three pillars: teaching, research, and service [8]. The third of these pillars refers to the variety of services provided directly by universities to the public. These may include consulting for governments and corporations, providing short courses for adults, allowing local communities to use university resources, running linked hospitals, schools, and sports facilities, and so on. These activities, often known as community involvement, public service, outreach, or third stream, directly contribute to human capital development.

According to the well-known research by Oketch, McCowan, and Schendel (2014), the three pillars can bring about impactful development in a variety of ways. They define the three pillars as the backbone of tertiary education, described alongside a range of input factors that influence the way institutions are organized, the composition of the student body, staff, and resource levels. Within this paradigm, we classified tertiary education's key outcomes into five categories: incomes, productivity, efficiency, technology transfer, capacity, and institutions. Graduates and research findings are the tertiary education outcomes that lead to such consequences in the teaching and research routes. It is assumed that operational (service) actions have a direct impact on the outcomes. These outcomes are valuable in and of themselves, but they are also supposed to have an instrumental purpose in relation to a broader concept of development.

These routes are founded on a variety of economic and political philosophies. The most prominent of these is human capital theory, which we discussed in the first chapter of the research report and contends that investment in education (as well as related areas such as health) will increase worker productivity and thus lead to an increase in individual incomes, which will have a positive impact on economic growth. Endogenous growth theory [9] has begun to augment this conceptualization of human capital since the 1980s by recognizing the significance of knowledge spillovers between people and society.

Endogenous growth theory, like human capital theory, assumes that greater knowledge and skills gained through education can lead to increased productivity of individuals (and the economy as a whole) through the adoption and development of technology and other innovations. However, in this view, the adoption of innovation has a multiplier impact since it boosts the productivity of all members of society, not just the educated. This concept has been expanded to include the concept of endogenous development, which recognizes that, in addition to market benefits, education provides positive non-market benefits (e.g., democratization, rule of law, health and well-being, reduced family size, and so on) [10].. These externalities boost individual labor-market productivity, which benefits the economy, but they also boost non-working-time productivity, which benefits individual life chances.

The conceptions of capacities and human development that have evolved from the work of Amartya Sen (1992, 1999, 2009) and others (Boni and Walker 2013; Nussbaum 1997; Walker 2006; Unterhalter 2003) have challenged the dominance of economic understandings of the benefits of education. According to this viewpoint, development is defined as the maximization of freedoms for all in a society in which individuals have the ability to do and be what they have reason to value. This vision enables a far broader understanding of the benefits of higher education.

Some of the higher education benefits mentioned in this framework are private, which means they are only available to persons or groups who deal directly with the university. Students are the most visible recipients of private advantages, but others might gain from higher education as well (for example, firms funding research). These are the advantages that have attracted the greatest attention in recent years, owing in part to their ease of observation and measurement (particularly pay increases). The framework, however, includes a number of major public advantages.

These include the indirect influence of graduate attributes (e.g., the positive influence of a doctor or teacher on their patients and students); the broader social benefits accrued from advances in research and scholarship that are not limited by degrees; the important role of universities as guardians and promoters of cultural heritage; and the space that higher education provides for critical reflection on government, politics, and society [11].

The area covered above depicts the various ways in which higher education can have an impact on development. However, it is vital to note that whether and how such an influence happens is

dependent on contextual circumstances. Movement along pathways can be hampered by a variety of factors, including low enrolment rates and/or poor quality at the primary and secondary levels; a poor teaching and learning environment within institutions; restrictions on academic freedom; and a variety of external factors, such as the availability of employment opportunities. A number of these limitations are clearly present in under-resourced environments. The lack of proof of influence is thus due to these limiting constraints rather than an indication that higher education cannot have a positive impact on development in such circumstances.

4. Empirical evidence of educational capital

Despite a large body of literature on higher education in low-income settings, there are few studies that provide actual evidence of impact. Many publications describe a system, do policy evaluations, or make normative appraisals of the current situation without documenting their influence. Furthermore, a number of studies analyze intermediate results of intervention within an institution without considering the impact on society as a whole.

C. Smith (2010), for example, investigates how a distance learning program offered by a UK-based institution improved the teaching skills of teachers at two vocational colleges in Zambia, without assessing how such changes might have impacted local innovation or productivity [12], whereas H. Dagenais, D. Binh, and D. Currie (2010) report on how collaboration between Vietnamese and Canadian universities has improved the gender sensitivity of research outputs in agriculture, foregoing any assessment of how such changes might have impacted local innovation or productivity [13].

Despite the fact that approximately 7,000 studies were initially identified after a thorough database search, only 99 studies indicated an impact in low- and lower-middle-income nations [14]. The majority of empirical research concerns the economic impact of tertiary education. This trend can be attributed in part to the emphasis on economic engagement mentioned at the beginning of this chapter, as well as the following importance put on measures such as earnings and economic growth. There are other methodological reasons: many of postsecondary education's non-economic benefits are difficult to quantify, particularly through quantitative analysis.

William McMahon (1999, 2003, 2009) did pioneering work in this area, assessing the returns to education against a variety of market and non-market benefits (e.g. reduced infant mortality, democratization, lower crime rates, environmental protection, and increased levels of community volunteering) [15]. W. McMahon demonstrates that non-market benefits are mirrored in economic growth, even double the direct economic impact, showing the critical interplay between economic and non-economic benefits. Such quantitative improvements complement a long history of qualitative research into how higher education affects individuals and societies.

I sought to present an overview of the research evidence on the impact of educational capital on development in this section of the chapter. The evidence presented here has been organized into four broad categories relating to the impact on economic growth, inequality, institutions, and individual capabilities - despite acknowledging the significant interaction between the four, which we have integrated into one figure to better understand the synergy between them.

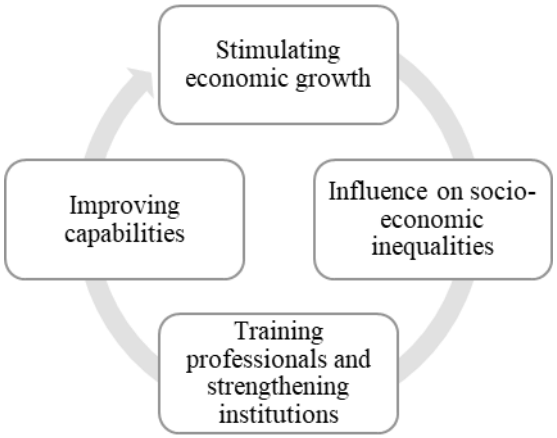

Figure 1. Impact of educational capital on development, own elaboration

5. Stimulating economic growth

The majority of research on the impact of higher education focuses on individual incomes. Global studies reveal that greater education graduates earn better salaries than persons with lower levels of education, as expected. Human capital theory,

as noted in the first chapter of the study, implies that greater earnings equate to higher worker productivity. As a result, these findings might be interpreted as evidence that graduates' skills, knowledge, competencies, and other traits raise their productivity, so contributing to economic growth. There is some evidence that this is correct, but there are also studies that aim to separate productivity from salaries in order to directly analyze the influence of higher education on productivity increase [16].

However, whether larger earnings are always indicative of better production is questionable. When employee earnings are determined by other sources, such as patronage, or when graduates work in areas where wages are regulated (e.g., the public sector), this assumption is violated. Because all of these characteristics are common in many of the contexts studied in global studies, information on the influence on income growth may not imply a similar impact on economic growth [17]. In reality, evidence on the macroeconomic impact is less conclusive than evidence on the microeconomic level.

When it comes to analyzing the relative impact of investment in primary, intermediate, and university education on economic development, the evidence is also divided. Given the ongoing problem of allocating financing among different levels, this is a topic of great concern to development organizations [18]. Previous research has demonstrated a concave link between investment and returns in low-income situations (i.e. returns are higher for lower levels of education than for higher levels of education).

However, more recent research has revealed the inverse (i.e., the relationship is convex). This shift in time is most likely owing to increased access to elementary and secondary education, which has resulted in a surplus of job searchers with lower levels of education. At the macro level, several studies demonstrate that basic and secondary education have a stronger impact on economic growth than higher education [19].

One reason for the seeming disparity in the quantity of evidence is that macro-level correlations between higher education and economic results are more difficult to demonstrate than micro-level relationships. In many low-income situations, one barrier is a lack of adequate macro-level enrolment and labor market data. Another issue is methodological challenges resulting from the temporal lag between higher education and any theoretically identifiable influence. In certain circumstances, it is difficult to say conclusively that the expansion of higher education is the outcome of economic growth. Methodological breakthroughs in this area, however, have been made, and research that has attempted to overcome the gap in their design has showed a positive impact on economic growth. Such statistical modeling breakthroughs imply that there may be more evidence at the macro level in the future years.

6. Influence on socio-economic inequalities

The relationship between higher education and societal disparities is complex and varies greatly depending on the finance and access systems in place in particular contexts. For example, K. Keller uses his findings to argue against public investment in higher education in low-income nations [20], claiming that such expenditure favors the wealthy disproportionately and cannot be justified given large levels of illiteracy. In many low-income nations, the direct benefits of higher education are certainly confined to a few. In such cases, higher education can exacerbate social inequality by assisting elites in reinforcing their current privileges, affording them and their offspring extra economic possibilities and political influence. However, the history of investment in higher education in low-income countries implies that any further reduction in public higher education subsidies should be approached with caution.

Years of insufficient investment in higher education have resulted in a quality crisis in many higher education institutions; further financial cuts would have unavoidable consequences for higher education institutions' ability to contribute to development. Mechanisms for ensuring fair access to higher education are assisting in addressing this issue, but present trends are likely to have the opposite impact. In many circumstances, the shift toward 'cost sharing' in public institutions and the rise of commercial fee-paying institutions may exacerbate rather than solve this problem [21].

Existing research reveal inconsistent data on the macro-level association between higher education and poverty reduction. Indeed, the previously mentioned very restricted access phenomena may appear to militate against any meaningful impact on poverty reduction.

However, I believe that focusing solely on individual benefits from tertiary level degrees overlooks many of the societal benefits that can favorably influence both economic growth and poverty reduction. Training professionals in important areas, research, and community involvement can all help to reduce poverty.

7. Training professionals and strengthening institutions

Strong institutions, whether in the form of organizations like the judiciary and parliament, or in the broader sense of social norms, are critical for economic and human progress. In most countries, these institutions constitute the fundamental mechanism for achieving people's well-being and participation, and many economists believe they are critical to economic progress. Universities build institutions most visibly by educating the professionals who work within them. The early European universities were strongly associated with the training of professionals in specialized disciplines (clergy, doctors, attorneys, etc.), and this function continues to this day, with a considerably broader selection of courses currently encompassing education, healthcare, and business. Of course, the quality of teacher education is important to the quality of elementary and secondary education, therefore all of the benefits that flow from these levels are also applicable. Due to a lack of investment in universities, it is extremely difficult to offer fundamental social services to the population, such as education and health care, as well as an effective and accountable public service and local government.

A lot of studies also show that higher education has a good impact on political institutions. McMahon (1999, 2003) [22] and Keller (2006) [23] found a correlation between higher education and advances in the rule of law and the existence of political rights in cross-country research. Higher education has also been shown to promote the development of favorable attitudes and social norms, such as attitudes toward democracy and a lesser tolerance for corruption. There is also a link between higher education and lowering the rate of deforestation through the influence of public awareness, social activity, and technical advancement.

H. Urdal (2006), on the other hand, paints a less favourable image of higher education's impact, demonstrating that the development of higher education is related with an increasing risk of terrorism worldwide [24]. This conclusion, however, might be explained by the scarcity of opportunities for graduates in these situations, as well as the frustrations that come with such constraints in the enabling environment.

8. Capacity building

Improving institutions alone will not result in development if a populace is unable or prevented from taking advantage of the opportunities they provide. The amount to which individuals are enabled to exercise their potential in a variety of areas is a last category of influence. Individual money is, of course, the first way in which higher education might affect individual capacities. As previously stated, there is significant evidence that enrolling in higher education increases an individual's income. This effect may be due to the fact that most of the knowledge and skills acquired in university have a positive impact on the productivity of graduates, but it may also be for other reasons, such as exposure to improved social networks that can facilitate access to valuable jobs. Whatever the reason for the link between higher education and earnings, the connection is clear in the literature, with inevitable implications for the expansion of individual capabilities over the life course.

There is also evidence of non-economic capability expansion in a variety of sectors, including as health and nutrition, political involvement, and women's empowerment [25]. The democratic institutions described above are only effective in the political realm if there is an engaged and critical populace ready and able to exert influence over them. Final-year students in Kenya, South Africa, and Tanzania have higher levels of political knowledge and participation than individuals with lesser levels of education, according to Luescher-Mamashela et al. (2011) [26]. Higher education also has clear health benefits, as evidenced by a number of studies: higher education has been found to have a positive effect on psychological well-being in India and Nigeria, fertility reduction in Sudan, and nutrition in Timor-Leste - each of these cases has been evaluated by associating university studies with these positive outcomes in the lives of individual graduates. Cross-national studies have also found

a link between higher education and longer life expectancy [27].

Finally, a lot of research suggest that in environments of severe gender disparity, higher freedoms and say in social and marital relations are observed in Eritrea, Pakistan, and India [28]. However, research in Ghana and Kenya demonstrate that, while higher education has a considerable impact, it is insufficient to overturn entrenched norms of control over reproductive decisions and childcare obligations. More encouragingly, the expansion of tertiary education systems across the African continent has been connected to increased numbers of female MPs [29].

9. Conclusions

Higher education has a significant impact on both economic and non-economic talents. Macro-level effects are more difficult to separate, but there is compelling, albeit limited, evidence of affects on formal institution strengthening, informal social norms and attitudes, and overall economic growth. Evidence on the impact of higher education on human capital development is obviously of interest to policymakers and development agencies, both for justifying current spending and for guiding future investment, as such evidence can influence the decision to invest in higher education. It can also help inform judgments about the shape that particular interventions and reforms should take (for example, whether to fund scholarship programs, institutional alliances, ICT infrastructure, and so on). However, evidence for the latter is quite limited. The majority of studies that provide empirical assessments of impact examine links between enrollment in higher education and a specific result. As a result, studies tend to focus on whether people have completed tertiary education (or, in national studies, the fraction of the population that has). According to the article's framework of analysis, such studies measure movement from achievement boxes to outcome boxes. These studies do not provide much insight into what factors within the tertiary (or entry) stage may be influential, such as whether public or private institutions are more effective in developing research with economic and social impact, whether distance or face-to-face provision improves human capital, or how institutional governance affects community involvement. As a result, those reading research on this topic should contrast evidence on the impact of inputs on the functioning of higher education (e.g., how funding decisions may influence pedagogical approaches in universities) with evidence linking higher education outcomes to human capital development outcomes. Significant gaps in the current research impede this task. There is a general dearth of studies analyzing the influence on society, particularly non-economic advantages, and very few studies that analyze the impact of research and services. All of these topics merit a lot more attention in the empirical literature.

Higher education is unquestionably an important component of growth. It is a public good, providing opportunities for higher education, preserving and developing intellectual and cultural traditions, and giving a space for research, study, and innovation. It is also critical to economic growth because it improves its graduates' high-level knowledge and skills and provides basic and applied research that fuels innovation. It also generates a variety of non-economic benefits for human capital and other members of society. Higher education's importance for development has been widely overestimated, hence the rising focus on universities in the development discourse is a desirable trend.

However, I do not believe that financing for primary and secondary education should be lowered as a result of this move. Because all levels of the education system are interdependent, success can only be attained via prudent and efficient investment across the board. Furthermore, universities' potential can only be realized in supportive institutional and external environments that allow academic freedom for research and study, provide a broad and intellectually challenging curriculum, and ensure that university access is not limited to traditional or newly formed elites. Higher education may be really transformative in these favorable conditions, responding to modern concerns and contributing to the building of human capital with the ability to establish prosperous, inventive, and equitable societies.

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