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The Role of Education in Promoting Economic Sustainability

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Abstract

Education plays a vital role in the economic development of low and middle-income countries. It is viewed to be the core element of social, cultural and economic capabilities of any nation and system of education is largely responsible for the growth and development of the nation. Moreover, it furnishes human capital and is a critical variable for driving economic development forward. Investment in education results in an increase in human capital of the children and enhances their skill levels. Skill development is necessary to be absorbed as educated workers in numerous sectors of an economy and has been a crucial driver for creating and sustaining economic growth in usual developing economies. This leads to the presence of critical skill levels in an economy which may be downplayed to the creation and sustenance of innovative processes and technologies, enforcing in an increase in labour productivity and thus economic growth, development and sustainability. Thus, the current study argues about how skills development plays a pivotal role towards boosting economic growth in developing economies, and consequently leads towards economic sustainability. One of the biggest challenges persistently faced by investors and enterprises around the world is finding workers with the right set of skills. In recent years, the problems associated with skills mismatch have been more evident as there has been an increasing number of skilled workers struggling to find an appropriate job. These problems are even more critical in the Low-Income Countries (LICs) where labour market institutions are not as developed, and the

nature of the markets is more chaotic than middle-income and high-income countries. In this sense, skill development refers to the process that starts with the identification of the necessary skills for a specific job and involves improving those skills throughout the life of the individual. Hence, from the production side, it is crucial to promote policies to raise the level of skills of the workforce to ensure appropriate skill-match in the labour market, especially in the private sector amid structural change taking place in the economy. The recent desire to boost the manufacturing sector and to promote labour-intensive industries in low-income economies calls for the promotion of policies that help the creation of an adequate level of skills in the labour market.

Keywords education, economic sustainability, human capital, skill development, economic growth, low-income countries, labour market, workforce skills

2. Introduction

Education is the most powerful tool in promoting economic sustainability. The last few years have seen a crisis in the world's economy of unprecedented proportions. In the aftermath of World War II, there were many challenges in securing the economic growth and development of the different economies across the world. However, the issue of economic development has come under harsh criticism after a long period of trying to implement the principles of free trade, capital flow, investment, and domestic investment to return a sustained growth to the poorest countries. Every country aims at improving the living standards of its people. Throughout history education has been considered a positive investment in human capital, as it is the primary driver for economic development. While there are caveats to the concept, a good quality education can provide a number of long-term benefits to the individual, to society, and to the nation in general. These include benefits in sustained socio-economic development, the enhanced capabilities of taking calculated risks, the eradication of the poverty trap, better and greater job opportunities, higher future income expectations, prompt decision-making in complex economic environments,

and declines in criminal activity. However, a developing country, by definition, is a net importer of capital, has institutionalized income inequality, and deals with the phenomenon of the 'middle income trap', which damages the development of domestic investment, the creation of better educational institutions, and the maintenance of large-scale education and business networks. The vast majority of developing countries have limited access to medical, social, and especially educational services. Although international help has provided financial assistance to most of these countries in the form of grants, donations, subsidized interests, free trade, and technical assistance, a significant percentage cannot take advantage of such resources because their economies have yet to show any improvement in terms of economic stability and restructuring. Nor can they access any tertiary medical, social, and especially educational services. Indeed, support for economic development is not enough to provide a welfare state that makes dramatic and broad-based improvements in the quality of life and brings prosperity to all members of the society, guaranteeing every citizen the stability of their life and the standards of well-being necessary for survival.

3. Theoretical Framework

There are a number of ways in which the relationship between education and economic variables can be interpreted. Many of those ways are treated in . Some of the main theories that provide a basis for suggesting the desirability of a closer relationship between education and various economic outcomes such as welfare and economic growth are discussed below. These discussions are treated with particular references to the developing countries.

The theory that has attracted the greatest attention in connection with developing countries is the human capital theory first suggested by Schultz and subsequently elaborated by Schultz and many others (Conrad, 2017). This theory has been influential because it provides a clear and simple framework for understanding the expected relation between education and certain economic variables, particularly

individual earnings. In macroeconomic terms, it has been suggested that investment in human capital may also be seen as investment in an economy's future production. Firms wishing to improve their competitiveness may then be expected to invest heavily in the improvement of their work forces. This viewpoint suggests that the education system of a developing country may perform its key function in generating economic benefits for the country as a whole through equipping individuals with appropriate skills. A counter-argument contends that investments in education generate benefits to the individual rather than the economy, and can lead to a skills mismatch as the more able are siphoned off into higher education courses for which there is little market demand, thus diverting funding away from developing the necessary skills in more productively employed parts of the economy (Bekele et al., 2022).

3.1. Human Capital Theory

Human capital theory, which notes the greater productivity of workers with stronger skills, is one of the essay's cornerstones. As suggested by Human Capital Theory, investment in education is important, and most estimate that people with higher education earn more than uneducated people. Better employment opportunities, higher hourly wages and a wage premium for those with higher educational qualifications are all associated with the acquisition of more education. It is because education enhances the skills and productivity of workers. The benefits of this enhanced capability, but also to the economy in general, are not only in terms of the income workers can earn, but it is also to economic growth. Two paths can be followed. First, in their working life, those with higher levels of educational qualifications are likely to see higher returns on their work. This, over time, results in higher accumulations of capital for the person due to the higher income. Expenditure on education is thus justified as an investment, which pays off with the increase in life-time earnings. Second, education has beneficial long-term effects on behavior which are different from the effects of training. More educated individuals take

better care of their health and have better nondurable goods. They also change their environment through their voting habits and their social behavior. These considerations form the basis for several formal macroeconomic models. However, they are generally in the realm of economic theory and not supported by empirical evidence (NDIAYE, 2018).

The global economy is currently undergoing a significant change, with the number of employment being transformed according to new forms of work and this trend is expected to continue under the effect of technological change and alterations in world trade relations. Consequently, as the structure of employment changes, the skill composition demanded by the production sector also changes rapidly and the short-term skills needed for newly created jobs can never be met despite the rapid training. To adapt to these changes and therefore to survive or even take advantage of them, it is necessary to act planned and consistently in connection with the whole life cycle of the individual, taking into account the complexity of the relationship between labor market demand and supply in the area of education and training and by paying particular attention to vulnerable groups and promoting gender equality. It is necessary to improve the quality of education and teaching and learning substantially, to open up to working life, to strengthen the cooperation between employers and the world of education, as well as to support lifelong learning. As can be seen from these essential points, lifelong learning is beginning to gain a new dimension with the developments in technology and as a lifestyle, as it is increasingly gaining importance for the economy with all its regions. Educational expenditures have significant and robust positive effects on economic growth in the vast majority of 114 countries analyzed. It focuses on the developing countries of Sub-Saharan Africa (Bekele et al., 2022). For investment in education to be rational, the private rate of return must exceed the social rate of return. Given that there is a labour market, a decision to invest in schooling can only be rational if an individual perceives

that it will lead to higher wages. For human capital to raise economic productivity, it must increase the personal income and wealth of individuals.

3.2. Skills Mismatch

Skills mismatch describes the disjunction between the skills possessed by the labor force and the demands of the job market. Never far from the headlines, the current debate surrounding this issue has always focused on its implications for the micro economy, namely the welfare of individuals, firms, and sectors. Despite the fact that this is a major consideration, this narrow lens often obscures the broader effects on economic efficiency and growth (Sala Lorda, 2011). However, much evidence has been found to show that the overall effect can be negative. The micro-economic debate has a strong focus on the efficiency criteria for well-being, and one reason that skills mismatch is believed to be inefficient is that workers who are not employed where their skills are best utilized are less productive. Over and above the micro-level effects of skills mismatch on individuals, hurting job matching, productivity, wages, job satisfaction, job turnover, etc., there is a potential macroeconomic effect if mismatches persist in a growing economy. The literature reveals several causes of skills mismatch: the Job Requirement Approach argues that mismatches are caused by changes in technology and industry demand. As the pace of technological advancement quickens, the economy is increasingly demanding more highly skilled workers. However, due to the difficulty of foreseeing exactly which skills will be in demand, changes in industry occur before corresponding changes in education. Other developed economies are also facing skill-demanded shortfalls brought about by rapid industry changes, with investment in education often following, rather than leading, such changes. For instance, during the industrial upgrading and transformation processes in Germany and the Netherlands in the 1980s and 1990s, the economy demanded more skilled workers which led to a time lag before the education sector could adapt and provide appropriate training.

4. Empirical Evidence

In all fields, empirically analyzing the data helps draw implications more accurately. This section provides empirical evidence to reinforce the theoretical analysis across the sections. Economic sustainability is a popular economy term. Despite the widespread utilization of the term, there is no agreed definition. It generally includes the long-term perspective and effects of investments made for growth. A lot of research includes the long-term investment in education and human capital to improve economies. This is also suggested as an official suggestion for solution way to the current economic crisis.

The causal relationship between educational investment and economic indicators has best been tested in a more developed country context thanks to their elaborate statistical records. Although, the mediating role of vocational training in addressing skills shortages and skills obsolescence has been solely neglected in the literature. Current data analysis reveals that educational architecture can constitute the whole of the educational system of a country in a comparative context, including the performance in the educational domain, that is, curriculum, teacher quality, and strategy, and a stylized representation of its functioning in the context of a production boundary, i.e., the financing of that system. Nonetheless, it is still possible that natural and semi-natural experiments occur and produce pertinent evidence about the education-sustainability nexus.

In the meantime, diverse industrial sectors all have different education paths. Besides, the macro- and the micro-levels are interconnected and the education paths of the last are constituted by big programmatic choices of the former. In fact, an education path constitutes a product on the educational-waiting institutional horizon and it needs the structural workings of a firm set up in view of the near future. In other words, it necessitates a preparatory work and a decisionality complex which permits concomitantly scheduling the optimal move to the educational offer. In other words, education architecture constitutes the whole of the educational system of a country

with all the policy variables involved, that is, the performance in the educational domain, the financing of the system, the strategy of a country in view of the kind of work required. On the other side, the educational architecture of a country is sum of the education paths of the various industrial and service sectors, that is, their gigantic state and productive, public and private, education requirement. In fact, education paths all have different education needs: the education architecture of the production of cars is not the same as the one of bio-medicine. Anyway, those paths are in the meantime both cause and effect of the education architecture. On the one hand they constitute a demand with sufficient power to orient the education offer, on the other they are products of big programmatic choices of productive firms. What were the firms of photo cameras expecting about the evolution of the kind of scientific degrees useful for works in theirs factories? On the other side, it is only on a long horizon that it is possible structuring and aligning some of the education paths. For example, to structure a path in aeronautical research it is needed to establish wide-ranging university department; a decision not much less complex than that necessary decision to launch an army of researchers on the project. This double interaction between the level of analysis makes education architecture very rigid. In synthesis policy recommendations have to take into account this remarkable complexity. Moreover, this initial theoretical frame suggests a very cautious approach in the extrapolation of the aggregate result on a disaggregate context. In fact, national circumstances depend on a great deal of accident, including their path dependency, inertia in the educational system, unplanned invention and belief concerning the education sector. The ambitious extension of theoretical modeling to the analysis of local education systems has led to the formulation of such conceptual schemes able to identify, before the analysis of the case study, the relevant factors and the possible outcomes of the investigation. Such theoretical issues have then been empirically tested, showing significant merits peculiar to controlled comparisons. At the same time, the application of theoretical insights to the

education system has provided robust reconstructions of past developments and current trends, while distinguishing entrenched policies from new educational interventions. These findings offer a successful illustration of the explanatory potential of the theoretical approach and provide fresh insights on the possible outcomes of education strategies. Above all, this collective effort underscores the strategic role of education for sustainable economic growth and calls for a careful assessment of the entire educational system to bolster learning dynamics at country level. (Dahan et al.2022)

4.1. Case Studies

One argument is that the role of education in the promotion of economic sustainability is not significant mainly due to market failure effects. However, a lot can be done through changes in economic policy or the education system, which could be implemented away from full employment. The issue is important for two reasons. First, human capital may be regarded as an investment good which is complementary to physical capital. Second, even putting directly the supply of educated labour into the production function, the unemployment/inflation trade-off depends crucially upon the wage elasticity of demand for labour. This relies, in turn, upon the extent of the wage differentials between workers of different educational standards. (Sun et al.2021)

General conclusions can be drawn from the case-studies. All show that some increase in public spending on education is possible. The cases are not entirely representative within the world, but they do reflect a wide variety of different types of educational system and context. All of them have educational systems which would be regarded as ‘selective’ in terms of those who successfully complete them in the UK. There are some extensive systems, with varying degrees of, but all limited, opportunity for higher education, such as Mozambique or Egypt. The case studies show how a low level of education is maintained in two Asian societies with different traditions and political systems of government. A review examines a situation in a middle-income

country where rapid development is straining an already overburdened educational system. Another examination looks at a situation where the higher education system is, to some extent, already overfed. Broad perspectives can be obtained, on the education/economic relationship, from looking at other countries (MAMOON, 2017).

5. Policy Implications

Introduction The socio-economic development of any society depends on economic growth, which revolves around multiple factors, including human capital, physical capital, technology, and natural resources. Human capital is known as the ability, knowledge, and skill embodied in the labor force, which is crucial to achieving sustainable economic activity and paves the way toward a decent quality of life (Khurram Khan Alwi et al., 2019). This multifaceted knowledge and skill can be acquired through creativity or by means of a formal setup, such as schools, colleges, universities, and skill providers. Development of human capital is mainly related to formal education, which is known as the lifeline of socio-economic development and is essential for economic growth. However, education for economic development is only one piece to the puzzle. It is a complex phenomenon and depends on a coherent framework composed of a productive economy, equipped with the technology, policymaking initiatives, dedication, and innovative growth strategies of the people in power. This visionary approach leads to economic sustainability, resulting in social equality and an enhanced quality of life. Here the focus is on how education fosters sustainable economic growth and the associated policies to be formulated at the national levels or relevant parties. Education, a key source, accentuates human capital in any society or economy, and has undoubtedly been recognized as an essential and beneficial tool in several areas of economic development. It not only leads to human capital formation, but is also basic and integral to rapid growth and poverty alleviation in many economic literature and theories. Human capital contributes largely and significantly in creating a cohesive and stable environment, as well as in controlling population growth. Given its magnitude effect, the education

sector enjoys a premier position in any planning strategy and acts as a source of economic growth. Social infrastructure, such as education, can deliver health and services, improving life standards. Furthermore, a good educational background provides rapid professional development and high pay, contributing to personal growth - all outcomes of economic development. Industrial education and training could result in a labor force that adapts in order to increase national productivity. With trained and attentive workers the nation can produce more goods of adequate quality and ultimately obtain additional foreign income. Education embodies values, norms, ethics, and moral values, nurturing relationships, credibility, respect among the people and democracy. A true democracy depends on the education provided to the citizens. In developed countries, no matter which profession is adopted, formal educational systems are always supportive throughout one's working life. Industrialists spend a significant proportion on technology, research and development transformation or skills development phenomenon for their workers to boost productivity.

5.1. Investment in Education

Over the last two decades, various international forums have been conducted and have produced many scientific papers and presentations that address the key role of education in achieving sustainable development. The major outcome of these forums is that strong and sustained investment in the educational system at the country level is urgently needed to improve educational quality, relevance, and access. National financial resources are a critical means for implementing educational policies, strategies, and programs. Multi-stakeholder development partners have facilitated financial resources in various ways such as grants, loans, project support, and technical cooperation. Funding can tremendously support the improvement of learning outcomes through infrastructure investment, teacher training and support, and provision of educational textbooks and learning materials. Investment in strategic funding areas will lead to substantial, long term payoffs to the economy,

and new ideas should be promoted on how education should be considered a key investment which yields high economic development return (Philip O., 2014). Moreover, combining policy changes in conjunction with different funding mechanisms and partnerships can substantially increase the net impact of educational investments. Education expenditure, through better policies at both national and international levels, can be an effective way to mitigate possible conflicts of interest among various goals. Public-private partnerships in education sector funding have been wide-spreading and played a significant role in the improvement of educational quality in many countries. This section will explore cases of funding partnerships that have been identified as critical to making long-lasting contributions to education and sustainable economic development. Such funding initiatives have acted not only to develop the quality and relevance of the educational system but have also produced supplementary impacts that may not be immediately evident, i.e., developing public infrastructures, promoting the awareness of commercial practices, and fostering further cooperation among countries for mutual benefits.

6. Conclusion

"If you always do what you always did, you will always get what you always got" – . Ultimately, humanity shapes its own destiny. Societies that fail to develop potential abilities inevitably fall into stagnant development. No economic system can grow if an individual or society has nothing new to offer. Economic structures must evolve with structural changes; economic policies, with changing environments; job seekers, with changing demands. Competition based on ability has always defined human development. Along with its role of fostering political equality, education takes more abilities, more opportunities, and more doors that lead to different routes of individual transits to success.

Less well-understood is the role of education in its functions of attributable social organizations toward economic sustainability, especially in developing economies. To

be of value, educational institutions must redesign in the structure of courses, pedagogy approaches, and educational planners so that labor market needs can be fulfilled in a timely manner. Theoretically, a developing economy needs to enter a particular educational stage so as to maximize its technology opportunity and foster its economic sustainability (Khurram Khan Alwi et al., 2019). By connecting the theoretical argument with empirical facts, the importance of them in appropriately improving the alignment between education and labor market are illustrated. When educational development is out of step with economic growth, cost of job creation increases and unsustainable economic growth may be inevitable. Thereby, policy of them has to improve skills of job seekers, provide vocational training, adjust the structure of education, open education, and etc. So, the overall implications of skills mismatch to developing economies are not futile. This essay, based-nearly on developing economies, argues that developing economies evolve differently in terms of education, and face different challenges and options from those that have tended to characterize traditional developed economies' debates on the role of education.

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