

The Link between National Education and Training to Economic Performance: Is it all too Obvious to be Taken for Granted

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Introduction

Professionals and governments will hardly disagree to the claim that Education and Training (ET) is one of the most vital driving forces behind any country's economic performance. As a result, almost all countries do have or are keen to formulate their own Education Training systems and Policies to facilitate development.

Although, as pointed out above, there is a general belief that high investment and refined national ET systems would of necessity lead to the improvement of economic performance, there are those who contest the automaticity of its link to development. They claim that experience and researches show that it is not as obvious as it appears. It is rather more complex and illusive that it begs for an in depth investigation and understanding of the dynamics involved in the issue. It is this particular issue that this paper would attempt to look into.

The first part of the paper tries to touch on the emergence and evolution of national ET systems in relation to the process of state formation and industrialization. It will show how these historical events influenced the direction adopted by different countries in the ET and skill formation process. Presenting these dynamics is hoped to highlight the factors that gave different shapes to the process of nations' ET development, help to illuminate the issue and provide a perspective to the subsequent arguments.

The second part of the paper deals with, although in a very limited way, the various positions adopted by different scholars on the significance of ET in determining economic growth. In the course of

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the argument, the comparative experience of some of the European, Asian and African countries is cited to show how and why ET systems make different impacts on the performance of their respective economies.

National ET Systems: History and Process

While trying to examine the significance of ET systems in determining economic performance, one needs to look back into the history of education itself, process of state formation and industrialization and the relationship to each other. This is because, the variables of state, the industrialization process and ET systems developed by influencing one another. The nature of their linkage, mutual influence and historical routes and occurrences have also affected the particular way in which national ET systems have developed, organized and practiced in each country over the years. That seems to be why national ET systems are organized and delivered in various models, shapes and intensity in different places..

If we start with the process of state formation, we understand that it emerged with the establishment of systems of taxation, and ensuring of law and order for societies. This was a significant historical even in providing the pre-conditions for the development of ET systems, the economy and maintenance of business relationships between people, organizations and countries. As Green (1990) has shown, the origins and distinctive characteristics of national systems of education can only be understood through recognizing how the process of state formation propelled state involvement in education.

This historical process of state formation was not similar in all places. It developed differently and with peculiar traits in different countries. This in turn has influenced ways of organizing national Ets and productive systems and laid down the basis for societies to develop distinctive institutional arrangements through which process of skill formation operated.

The other major but related process of change which had a profound influence on skill formation (ET) was industrialization. History shows that industrialization occurred later, and in rare cases, parallel to the formation of states. For instance, in some societies such as Singapore and Taiwan, the two processes of state formation and industrialization have occurred almost simultaneously, and at times the latter affecting the former. Whereas in many others, such as Germany, Britain and USA, and for that matter Ethiopia with less on the industrialization aspect though), the process of state formation was well under way before industrialization started.

Once these were unfolding, modern forms of production was established that necessitated a number of other organizational and structural changes that followed as an inevitable consequence and served as a further impetus to the development of national ET systems. In other words, the long term process and timing of state formation and industrialization played a significant role in determining why different countries developed different ways of organizing their educational and training systems and their respective potential in influencing economic performances.

When national education systems started, it had different purposes in different countries. For instance, in Prussia, later Germany, it was geared towards providing literate and disciplined recruits for the Kings' army. This is in a way, although remotely, similar to Ethiopia where the religion based education was meant to supply clerics for the churches/mosques and low skilled professionals for the bureaucracy and the army. It was at a later stage that the Ethiopian ET system was gradually secularized and adjusted to help strengthen nationalism.

In the ET was tailored to create a sense of national identity (although gradually used for industrialization) for immigrants and people of different races which has to be integrated into the new nation. It was only after some time that ET systems were consciously set up to

supply skilled labor for industry and commerce that in turn called for a rearrangement of the old systems designed for different objectives.

As a corollary to nations' differences in the times, history and processes of state formation and industrialization, there are also differences in the way the relationship between capital and labor is organized. Countries like USA, Canada, and UK used market mechanisms in which the state provides a legal framework and leaves the relationship between capital and labor to be determined in the market. Under this system ET is mainly the responsibility of the employers and the employees. The other variety of ET systems is undertaking regulatory measures and create a 'consensus between the state, capital and labor ...' including the form of training and its delivery whereby the state is actively involved. Germany, Austria and Switzerland practice this system.

The third approach is where the state plays a greater role of coordinating the relationship between capital and labor. In this system the government leads centrally the regulation of industrial as well as the educational system. Korea, Taiwan and Singapore are some of the countries that follow this policy.

From the above facts one can understand how the long-term and divergent processes of state formation and industrialization played an important part in determining why different countries developed different routes of organizing their ET systems. One can also observe how different approaches adopted by different countries in regulating capital and labor could influence the way in which ET is delivered and used. This shows that there is no universal ET system that cuts across all nations, which in turn means that the relative contribution of national ET systems on the economic vibrancy of each country is dependent up on the way it is organized and set in motion. With this background and understanding, let us now proceed further to assess if national ET systems are on their own significant factors in determining economic performance.

Do National ET System Automatically Determine Economic Performance?

Rogers (1992) remarked that education is a planned process or purposeful learning and the process is often carried out within a system. But the system itself is not 'education'. It is only designed to promote the process. It is therefore possible to have a system but have little or no education taking place and equally some of the processes of education and training to take place outside the educational systems.

This demonstrates that the mere existence of an ET policy or system in a country does not imply that it could by itself be functional and lead to development. To make national education systems and policies of some consequence or get them to contribute or be impetus to economic development, it requires a certain kind of approach, specific characteristics of a state and a conducive institutional arrangement.

When ET systems originally emerged, they were not consciously meant, as we have observed above, to serve as a tool to induce economic improvement. The contribution of ET to economic performance has only started to manifest itself recently. The older industrial systems developed without the need for an educated labor force. Even subsequent events in education bore only loose relationship to what happened in the economy. In the words of Ashton and Green (1977:1): "whenever and wherever capitalism has made its great forward leaps in human productivity, it has done so on the basis of primitive accumulations of riches ... Rarely, if ever, has the central level of the large majority of the workforce been seen as the ... central variable of economic growth."

As the millennium drew to a close, however, awareness gradually emerged and a consensus was reached on the salience of a nation's education and training system. It has in fact started to become the key item in the struggle for competitive superiority. This emergent understanding has in turn started to influence the policies and

national ET systems and arrangements in many countries. One of those prominent countries where there is an attempt to reorganize ET systems and delivery through setting up various bodies like Training and Enterprise Councils (TEC) and National Training Organizations (NTSs) is the UK (Module 3, Unit 3). The same trend is observable in many other countries including Ethiopia. But there is still a debate as to whether or not these countries are making immediate changes in their economic performances because of such rearrangement measures alone.

The debate between professionals in the field on the extent of education and training in determining economic performance is characterized by conflicting and some times polarized positions. Some of the proponents of the idea that national ET automatically improves economic performance had little doubt as to the relevance of education to development. In the western world, and in many developing countries too, there are people who think that the way to economic growth, raising labor productivity and hence average living standards is via skill formation or having the best ET systems. Some other are, however, more skeptical about the mono-causal explanation of economic development and seek to see more proof to accept the proposition.

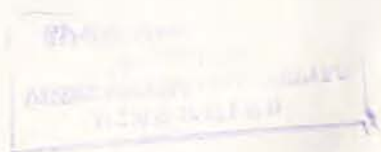
There are a number of research studies that have claimed to trace a link between ET and labor productivity. Among those, Koike and Inoki (eds. 1990) have found out that much of the productivity in factories (assuming that this leads to economic betterment) in Japan, compared to similar Japanese owned factories in Malaysia and Thailand, are related to the more effective enterprise training system and consequent higher skills in Japan. Wagner (1989; 1989). Paris et. al (1989) showed the same inclination when concluding that the wide variance in the level of productivity between British, French and German workers emanated from the differences in the level and quality of their respective national ET practices.

Gemmell (1994) and Wolff and Gittlemen (1993) also confirmed that they have detected that the level and growth of skills has a significant impact on economic growth for the period from 1960 to 1985 for both advanced and less developed countries. They further contended that better education also raises investment levels, and that this might prove to be an important channel through which educational effect on the economy is securely founded.

Nevertheless, the above views that maintain that education and training have an obvious link with economic performance was contested on the ground that there is no conclusive empirical evidence to attest this. Ashton and Green (1999:55) observed that, "... without denying the salience of education and training in the current era, there are sever limitations in the way that the impact on economic performance is conceived...". They further argued that despite an increasing effort on the part of empirical researches, thee remain enormous gaps in the knowledge of the magnitude of any links between skill formation and economic performance. If any thing, they reasoned, the direct effect is more obvious and pronounced on individuals' wages or earning capacity and probability of getting jobs. Even at the individual level, they concluded, there are data and modeling limitations that beset the endeavor to have a reliable empirical conclusion on the direct effect of ET on economic performance.

Here, the authors seem to hint that ET systems may indeed have importance for the performance of the economy. But, they question whether or not mono-causal explanation and current research results would be sufficient enough to warrant the position that ET automatically determines the economic performance of a country. This, they argue, usually happens as a result of multitude and complex factors besides Education and Training

Brown-Graham (1991) on her part is critical about the link from another perspective. Referring to the developing world, she argued in a more forceful manner that the place of ET in the economy is not so



obvious. Nor its effects on economic performance is so straightforward. She wrote that old certainties (that education would lead to automatic development) have been called into question, in education no less than in other aspects of social policy. She insisted that it is difficult now to see education as the panacea for all social and economic ills which some envisaged in the 1950s and 1960s. To substantiate her argument she quotes one young Zambian as says: "We need to destroy the myth of education as the miraculous solution ... a more sophisticated analysis is required which locates education within the economic and social ... a more sophisticated analysis is required which located education within the economic and social structure of society, rather than treating it as a largely independent variable. Only in this way can the limitations and potential strengths of particular educational [policies] and strategies be assessed" (Brown-Graham, 1991:3).

Suratwala (1992), while sharing some of the concerns stated in Brown-Grahams' concerning the role of education (he says literacy), his is a bit harsh and straight forward. He argues that the important point is to consider, on the basis of empirical evidence, whether literacy is a key to the development and empowerment of the poor and underprivileged. He further states that, it is generally but wrongly believed that illiteracy is the cause of the impoverishment, exploitation and oppression of the poor, and literacy is the panacea for all their ills. "It is only wishful thinking" he maintains, "that literacy leads to better health, better hygiene, better nutrition, longer life-expectancy, lower infant mortality, better child education ..." (Surtawala, 1992: 119-120).

The above arguments, while they are important in terms of throwing light about the role of education in the economy,, seem to be less comprehensive. While pointing out to the problems and complexity associated with educational systems, they don't qualify or explain the reasons why the systems or Ets they referred to were unable to contribute to economic improvement.

As a matter of fact, to dismiss the role of education as unimportant for economic development is tantamount to opt for ignorance. And this position is indeed very hard to validate. There is little clue, if any, in the academics or from experience that convinces us to take this option. Common knowledge, experience and research results tell us instead that a country's social and economic problems can hardly be solved without Human Resources Development systems and practice. The validity of this argument is found in the various UN generated report on each country's Human Development Index levels which usually correspond to the level of their respective poverty or prosperity. The issue here would therefore be finding out how and where to place ET within the socio-political structure to enable it to produce the synergy and contribute to economic growth.

Many researchers agree and emphasize that the theoretical approaches or the underlying assumption countries adopt behind their national ET initiatives and policy decisions in establishing and implementing their ET systems and the way they structure it determines the particular out put the system can deliver. This means that the guiding theory and principle that a certain ET system is based upon and the commitment to execute it is very important as to what kind of change it will bring about.

One of the approaches in ET systems development in Human Capital Theory which states that 'education and training can be regarded as investments with future material pay-off, analogous to investments in physical capital' (Module 3, unit 2:124). The other is the Liberal Approach which in short emphasizes the importance of ET as essential for the development of a competitive economy, that the essence of a country's skill acquisition system is critical in the architecture of its education and training institutions. The third is what they call the Labor Capital Approach that mainly deals with the coordination and synchronization of the industrial, economic and social sector of a country in the organization and delivery of education and training.

Perhaps reviewing the experiences of some Asian Countries that have practiced some of the above policies might help us to compare and understand the issue better. When we specifically examine the Asian countries that are affectionately named as the Asian Tigers against the above theoretical framework, it gives us additional insight towards understanding the issue. If we take Singapore and South Korea for instance, we can see that they have adopted the ET system in a way that it contributes to economic growth. Here, the secret seems to lie in the approach and the nature of the state. Both countries have demonstrated that it is not the beauty of the system per se that brings about changes but the way it is synchronized and coordinated with other existing economic and social sectors.

The result of this coordination of education and training with the requirements of the production system and the labor market is that a closer link between investment in education and training and economic growth was created here more than what had happened in the older industrial societies of the West.

Although the size of investment alone doesn't decide output, statistical data in this part of the world reveal a much stronger relationship between investment in education and economic growth in these societies. This has happened precisely because they have put in place mechanisms to institutionalize the links whereas those countries like the UK who have been following the institution free neo classical Human Capital theory (they are now constantly reviewing it) have not succeeded in creating the same effect (Module 3, Unit 3). While in the older industrial societies the market is left to perform the task, the state has played a far more actual role in the East to gear the output of the ET system to the requirement of the market/industry.

This highlights how critical the role of the state could be in the organization and delivery of ET. The experience from the Asian countries tells us that the more there is a strong and central government that can co-ordinate the relationship between labor and capital the more ET would contribute to economic growth. The state

in this context, which helps such economic expansion, is said to be a developmental state that manages the industrial and socio-economic relations in order to produce results. Such a state acts as the initiator and operator of the process of industrialization/development. This is the kind of state that enabled the national ET systems of the East Asians to contribute to their miraculous economic performance. As Castell (1992:50) has aptly put it: "behind the economic performance of the Asian Tigers breathes the dragon of the developmental state".

Another reason given as to why the Pacific Rim countries have particularly shown remarkable economic performance as a result of their ET systems is because they benefited from the experiences of the West. They learned a lot from the failures and successes of the civilized world. They started from 'Clean sheet' and achieved an economic growth through their developmental state in just forty years, a level which has taken the old industrial nations about 150 years to achieve. There have been few accounts of the economic miracles in E. Asia which have not stressed the contribution of education and human capital development to economic growth (Porter 1990, Wade 1990). Indeed East Asians used their education to fuel the process of economic growth.

From what we have seen so far, there is some evidence, although its applicability to other cultures and situations may have yet to be researched and established at a wider scale, that ET systems could be crucial in determining the economic performance of a country. However, there are still a lot of unanswered questions or would take time to be solved. Because there is more to education that may emerge in a time series. At this stage, before concluding the extent, effects and link of education to economic performance, it might therefore be relevant to raise some pertinent questions related to the circumstances in Ethiopia.

In the first place, the historical flow of state formation, industrialization and development of ET systems have not happened in Africa (because of mainly colonial factors) in the same way it did in the old

civilizations. As a result, most of the national ET systems in the continent do not seem to be a logical product of their history. Much of the principles and practices of their ET seem to be somewhat eclectic. It displays mixed features of local culture and a graft from other experiences and situations. The application and result has therefore become inconsistent and unstable.

In Ethiopia for example three policy approaches were practiced within a space of thirty years. The first was practiced during Emperor Haile Selassies' time until 1973, the second was enforced during the military government between 1974 and 1991 and the third one was in place since 1992. All the three policies/approaches differ in objectives and emphasis. Not only that, they didn't seem to have productively built up from each other's experiences. Consequently, the potency of the ET system in activating the economic performances of the country doesn't seem to stand out very strongly. This distinctive historical characteristics of the ET process must have been one of the sources of the wide spread debate between professionals and practitioners in the field as to which was the main thrust of the nations' education and training should be direct towards and what ET model to adopt.

When discussing the role of ET in development, it would be worthwhile mentioning the effects of the perennial migration of the educated elite from the poorest countries, including Ethiopia, to the rest of the world. This is an area which needs further study in the light of its educational as well as economic consequences. The adverse economic effects of the often-mentioned 'brain drain' may have to be assessed and factored in the debate. A recent statement by Addis Zemen, November 2000, and The Addis Tribune December 1st 2000, showed the seriousness of the problem when they wrote that, out of the many thousands of students that went abroad for post graduate studies in the last ten years, only less than half of them returned to their countries or mother organization and this trend is continuing unabated. This phenomenon should indeed be accounted for during the assessment of ET contribution to economic performance.

Conversely, a lot of people from the developing world are trained or educated in the Western as well as in the near and Far Eastern Countries. Some of them come back to their home countries with various skills and knowledge acquired under systems and values different from out country. One may ask how this had been streamlined and integrated within our national ET systems in a way that produces maximum effect.

In view of the foregoing arguments, I tend to appreciate and value the opinions and some of the concerns expressed by Graham-Brown and Surtawala. Because, although ET has been taken as one of the remedies for the ills of under development, experience shows that this mere assumption is largely proving untenable. In spite of the huge budget outlays for education and the expansion of private ET institutions, the result does not still appear to be as satisfactory as desired. This in a way also reinforces the argument that expansion of education and training may not by itself deliver automatic solution to development. If it should, it must be organized and evolve in a way that reflects and responds to the concrete economic, social and cultural realities of the given country. In this regard we have the opportunity and privilege to learn from the holistic approach of the Asian experiences, revisit our own approaches in the light of those lessons and, as we go along, methodically craft at ET system consistent with our history, culture, economic circumstances and the exigencies of the time.

Conclusion

Part of the foregoing argument show that there are pointers, at least recently, that ET has an unmistakable influence on economic performance. The experience of the Pacific Rim countries, which themselves have learned a great deal from the West, demonstrated the economic benefit of ET through a peculiar type of organizing and coordinating systems, institutions and the labor market. They showed that the extent to which national ET systems play a significant role in

improving economic performance depends largely up on the positive involvement of a developmental state, and the way the system is organized. They captured and exercised the salient secrets of coordinating the ET with the demographic factors, the skill needs and demands of the market. They understood that the degree of ET's responsiveness to the skill requirements of the employers and/or the market forces would determine its effectiveness in improving economic performance. And as we have witnessed, it indeed did in those countries.

The other dimension of the argument challenges the conventional thinking of taking the link between ET and economic development as obvious and evident. Some contend that its influence is very doubtful while others accept its conceivable relationship with the economy but hasten to insist that, for certitude, it should be proven with further research. One of the convincing reasons given for doing more research is the need to disentangle and understand the complex cause and effect relationship between ET and economic performance from other determinants of economic growth.

The research results hitherto produced have not clearly established evidences for or against the proposition that more extensive and varied (academic, technical/vocational, business) training and education alone leads to higher national economic affluence. There is no direct proof for the proposition that extensive training and education automatically leads to higher profitability in business. The growing number of colleges, universities or school graduates alone doesn't create economic prosperity unless otherwise the sector is carefully streamlined and sits within the overall development strategy.

On the other hand, although there is a paucity of empirical and wholesome evidences demonstrating the direct and obvious link between ET and the economy, there has never been any compact proof that can remotely convince any one to the country-that ET is totally inconsequential for economic prosperity. The list of missing

items only implies that there is a real need to continue exploring the issue.

The tricky nature of finding direct evidences and relationships is not confined to ET alone. It is also an issue, albeit varyingly, in all other social and economic sectors. But when it comes to ET, the question of measurement (quality, size, investment etc.) and criterion makes the study more difficult and complex. In spite of such factors that persist to disturb a neat conclusion, the issue of ET is, however, so central that we shouldn't despair but continue to engage in the investigation.

The scarcity of ideal methodology for accurately estimating relationship between ET and economic performance is currently further complicated by the global changes in the production system, which is happening at faster speed in the present age. It is presenting a formidable challenge as to how the system should be set to accommodate the influence. So, when we talk of ET system as being a significant factor in affecting the economic performance in any given country, we are also tacitly implying that the system itself is affected by the constant changes in the productive system and shifting relationship between capital and labor. In as much as the rearrangement and demands of the international division of labor and global competition is causing changes in the national economies, it is also transforming the national labor market and the way HRD and the skill formation process should be adjusted and organized at a national level.

In the light of the various arguments presented above, one can say that continuous research, development programs and constant adjustments to update the system will indeed increase the chances of ET in delivering added value to economic and social development. Countries should therefore aim and pursue at high quality and market responsive systems. For this, having a guiding philosophy and theoretical framework that illuminates the way and approach to

organize, coordinate and facilitate the ET system within the context of each country' history, culture and economy is paramount.

Even though it may not always be an easy venture to establish cause and effect relationships of the ET-development continuum, we have seen that there still remains enough positive evidences that reaffirms ETs importance and centrality to any economic analysis. The various aspects of development cannot therefore be dealt with effectively without seriously considering the role of education and training in society. Failure to take sufficient and comprehensive account of the links between Education and the development process would surely limit our chances of taking advantage of ET. For a quick transformation of our society, we need to look into a continuous and perpetual overhaul of our ET systems and practices and adopt a comprehensive approach that is capable of producing the often sought synergy and socio-economic pay-off.

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