



An integrated approach to human capital development

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It is critical that governments and tertiary level institutions promote the development of a more integrated national skills chain in specific disciplines

Human capital development is considered a primary platform for economic growth, competitiveness and sustainable development. This has become increasingly evident in the late 20th and 21st centuries whereby economic growth and development have been propelled more by knowledge and innovation than by manufacturing and industrialisation, as was the case in the 18th and 19th centuries. Globalisation, information and communication technologies, including the Internet and new electronic media, as well as advancements in science, engineering, and biotechnology are just a few examples of how knowledge and innovation have transformed the way we communicate, interact and conduct business.

The “knowledge revolution” has been the impetus for development for many countries such as Finland, Malaysia, Singapore, China, and India. Consequently, knowledge workers are now considered highly valued assets because of their technical expertise and research skills that advance understanding, facilitate problem-solving and influence decision-making (Drucker, 1993).

In order to develop a strong knowledge economy, countries must focus on creating new and innovative skills with more advanced training and intellectual independence (World Bank, 2000). Knowledge intensity has thus become a distinguishing feature, not only between sectors – since knowledge-intensive sectors tend to be more dynamic in terms of output and employment growth – but also between countries based on their respective levels of competitiveness and development.

Tertiary level institutions, therefore, play an integral role in today’s economic growth and development processes driven by knowledge acquisition and application. A highly educated workforce contributes significantly to a country’s competitiveness, and this is even more so where a large portion of the workforce has tertiary level training (Wagner, 2006). In building knowledge economies, universities are charged with

helping to bridge the knowledge gap by acquiring, absorbing and communicating knowledge (World Bank, 1998). Such gaps exist between countries, within countries and also within sectors. However, developing a balanced and evenly-distributed skills set within sectors as a first step in the holistic process of human capital development, while essential, is quite a challenge for many developing countries. The current tendency is for training and skills development to occur in disparate fields with little integration or alignment with market trends, industry absorptive capacity or national development priorities. Moreover, the effect of this in terms of a disconnect between human capital formation and national development and the estimated social return on tertiary education is exacerbated in an environment in which fiscal constraints at the macro-economic level translate into a marked reduction in resources allocated to tertiary education. This is the situation in which many developing countries find themselves.

In the Caribbean, in order to build robust and diversified economies and to achieve maximum return on investment in tertiary education, it is critical that governments and tertiary level institutions, in particular, revisit current approaches to human capital development and promote the development of a more integrated national skills chain in specific disciplines. This should not detract from the importance of promoting wide access to quality tertiary education to foster a culture of critical analysis, scholarship and innovation, but rather would serve to bolster national and regional development plans by harnessing skills and expertise in targeted disciplines for increased competitiveness of priority sectors.

The Role of UWI

In the English-speaking Caribbean, the University of the West Indies (UWI) has served as the leading regional tertiary education institution for over 60 years. As a relatively young region comprising states that



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achieved independence some fifty years ago, for most Caribbean countries, education has been and continues to be central to national and regional development agendas. According to 2008 UNESCO education statistics, Caribbean governments dedicate sizeable portions of public expenditure to education at the pre-primary, primary, secondary and tertiary levels. For example, in the Bahamas, public spending on education amounts to 19.7 per cent, in Barbados, it is 15.7 per cent and in Trinidad and Tobago, it is 13.4 per cent. In St Lucia and Guyana, public spending on education is 12.9 per cent and 12.5 per cent respectively.

In the case of Trinidad and Tobago, a country with an economic base primarily in the oil and gas sector, education has played a pivotal role. As the country intensified its efforts at economic diversification over the past two decades or so, there has been a greater emphasis on tertiary level education as a key driver for economic and social development. Gross enrolment in tertiary education increased from 6 per cent in 1999 to 8 per cent in 2002 (UNESCO, 2008) and is estimated to have increased even further in more recent years.

The establishment of the UWI St Augustine Campus in 1960 was a fundamental step towards achieving the vision of an educated and productive workforce in Trinidad and Tobago that would take the country forward on a path for sustainable development. In establishing the St Augustine Campus, the Premier of Trinidad and Tobago at that time, Dr Eric Williams, envisioned a university that would allow for all persons in Trinidad and Tobago of diverse backgrounds and talents, to have access to a university education. A university that would not be an intellectual enclave but rather, a central part of the wider society, bringing together persons from all parts of the country in pursuit of light, liberty and learning (Sherlock and Nettleford, 1990). In fact, the establishment of the first two faculties at the UWI St Augustine Campus – the Faculty of Agriculture followed by the Faculty of Engineering – was a strategic decision that facilitated a concentration of research, knowledge and technical expertise and provided an important platform for transforming the Trinidad and Tobago economy more aggressively than many CARICOM neighbours.

Promoting Complementarity

In today's world, Caribbean countries cannot ignore the highly competitive global environment in which they operate, with shifting geo-political relations, the

erosion of trade preferences for the Caribbean, and the vulnerabilities and exposure of Caribbean countries because of natural disasters, financial contagion, and an overdependence on external sources for energy and food, among other factors. Developing the knowledge, skills, entrepreneurship and innovation needed to boost national and regional growth and competitiveness is therefore urgent, now more than ever before. Notwithstanding the constraints with which many tertiary education institutions are grappling, because of the recent downturn in the global economy, the issue of promoting a complementary link between tertiary education and technical and vocational education and training must become a national and regional priority for increasing competitiveness and development effectiveness.

In the field of engineering, for example, there is a clear role for engineering technologists who connect engineers and technicians and can assist with the functional application of engineering principles as part of operational and development teams for innovation projects. Technology programmes and technical and vocational programmes that produce industry-ready technologists and technicians with hands-on skills in using innovative systems and processes should be supported and expanded. In fact, a collaboration between UWI and the University of Trinidad and Tobago (UTT) resulted in the delivery of internationally-accredited Bachelor of Applied Technology Degrees (BTech) in Mechanical and Electrical Engineering, which produced highly skilled technicians and technologists. These are the types of programmes that enhance the development of a national skills chain through differentiation in academic programmes and outputs with the aim of strengthening intra and inter-sectoral linkages to support national and regional development priorities.

While professional bodies such as the Association of Professional Engineers of Trinidad and Tobago (APETT) and the Board of Engineers of Trinidad and Tobago (BOETT) also play a key role in setting output standards and criteria, an established and well-coordinated framework guiding the interconnection and interdependence between tertiary level academic training and technical and vocational skills development is absolutely essential. This will serve to enhance synergies and more effectively address development challenges than solely producing large numbers of graduates receiving university degrees. This is also an imperative for establishing a national



system of innovation whereby businesses, educational and research institutions, financial institutions and government come together in an interactive partnership to stimulate and support innovations in products, processes, systems and policies within the national economy. In so doing, both the demand and supply sides of the national innovation system can be nurtured (Braczyk et al, 1998).

Such a coordinated and integrated approach is not limited to the field of engineering but should be extended to other disciplines in order to provide a robust platform for developing a knowledge-driven economy. The agricultural food and beverage sector is an area, for example, that requires an intervention where knowledge development and infusion are critical if we are to develop a competitive advantage. Guiding the formation of human capital at the national and regional levels is important for bridging knowledge and skill gaps and adequately preparing a workforce, a country and a region to make a quantum leap to increased global competitiveness.

A regional commitment

The interdependence of the Caribbean and other regions of the world together with the multi-faceted nature of today's global challenges, underscore the necessity for small states, in particular, to work together on devising and implementing regional solutions. This has been one of the key reasons for the promotion of regional integration and the establishment of regional institutions across the globe. In the English-speaking Caribbean, UWI has been a regional player for over sixty years and has worked steadfastly at strengthening regional cooperation in the area of tertiary education. Our commitment to regionalism is a unique and defining characteristic of UWI, with only one other tertiary institution in the world, the University of the South Pacific, having been established to serve several independent countries. We believe that our institutional commitment is premised on a philosophy that is noble, one that subsumes inclusive and benevolent values and promotes reaching out and supporting our Caribbean neighbours.

Participation in the Independent Advisory Group on Sustainability of the Inter-American Development Bank, the UWI-CARICOM Strategic Alliance for Institutional Cooperation, EDULINK collaborative projects with partner universities spanning the African, Caribbean, Pacific and European regions, the Association of Universities and Research Institutions of the Caribbean (UNICA) and its support for the post-

disaster rehabilitation initiatives in Haiti, are just a few examples of UWI technical, advisory and outreach activities that support development. While UWI is recognised as an intellectual leader in the region and a shaper of Caribbean identity, such initiatives also underscore the importance and potential of the university as a regional public good.

In shaping the course of human capital development for a more sustainable and competitive future for the Caribbean, it is imperative that there be a renewed commitment by all – governments, tertiary level institutions, the public and private sectors and civil society – to strengthen knowledge and skills development at all levels, and develop intra- and inter-sectoral linkages aligned with national priorities that support a broader regional development framework.

Access to quality tertiary education, as important as this is, must be pursued alongside development of adequate and appropriate technical and vocational skills. Building quality, excellence and efficiency are indeed important for the sustainable development of the tertiary education sector. However, at a time when many countries are facing severe financial constraints, a differentiated, but coordinated output from our tertiary education sector is urgently needed; one that addresses the current and future skills needs of our country and region. A much more focused approach to human capital development is therefore advocated. UWI will continue to work with governments and all stakeholders to advance and guide a coordinated approach to human capital development at national and regional levels. ■

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