



## Human Resource Development: Vocationalizing the Curriculum in Botswana

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### Abstract

The primary objective of this paper is to explore avenues of curriculum reform that could lead to productive human capital development in Botswana. The paper is based on the presumption that an educated labor force is better at creating, implementing, and adopting new technologies, thereby generating growth. As the world becomes more of a global village, the careful development of human resources to remain competitive cannot be overemphasized. Traditional understandings of training, with long training cycles, are becoming less and less applicable. The paper discusses the notion that the world of work has undergone profound transformation and that new ways of production have emerged leading to calls for a new kind of worker.

**Keywords:** Human Capital, Vocational Training, Tertiary Education Council, Botswana Training Authority, Global Village.

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## **INTRODUCTION**

In higher education circles, hardly a day passes without mention of the word ‘graduate employability’. Institutions are being urged from all quarters to ensure that their products are people employers would be eager to employ. Tabulawa (2009) observes that while unemployment is a problem in Botswana, there are vacant posts in the job market employers are finding it difficult to fill. They advertise, shortlist and interview people with the right qualifications, but do not find those people to be suitable for the posts. Where graduates are deemed unsuitable for posts in the job market, it points to a mismatch between what the labour market wants and what education institutions emphasize in their programmes. The University of Botswana has reported significant mismatches of supply and demand in the labor market and the job placement ratio is cause for concern. This is where pre-vocational training becomes crucial in that it is responsive and sensitive to the demands of the labour market.

According to Lekoko (2008), the problem of educated unemployment is gradually growing in Botswana and those critical of the education systems attribute this to curricula that aims to foster a globally competitive workforce and fails to equip learners with employment skills suited to their local environments. For a long time, Botswana’s educational landscape has been purely academic, with limited practical applicability to the world of work; so much so that when learners complete their studies, they find the workplace to be a totally new and different place. Graduates are taught to think, interpret and produce abstract knowledge but are unable to apply it in a real world work place. Based on its presumed benefits, formal education was made (and continues to be) a massive priority in Botswana, however, instead of it opening up a wider world of opportunities, particularly employment opportunities, the opposite has been true for some.

According to Kouwenhoven (2003), in developing countries many higher education institutions are experiencing a growing gap between their curricula and the demands of society, business and industry for a more flexible workforce with high skills (competencies) in problem solving, team work and project management. The present analysis seeks to better understand the problem of unemployment in Botswana, mismatches of supply and demand in the labor market, the job placement ratio, and the growth of educated unemployment. It examines the observation that Botswana curricula failed to live up to its presumed benefits and that the current education system divorces the world of work from the world of learning. Van Rensburg (2001) contends, in fact, that the formal system of education, to which the hopes of so many have been pinned, has failed the great majority of people. The content of education is such that it does not prepare people to participate in economic life. This analysis further intends to explore avenues of curriculum reform that will lead to productive human capital development in Botswana. This paper is based on the presumption that an educated labor force is better at creating, implementing, and adopting new technologies, and thereby generating growth.

## **HUMAN CAPITAL CONCEPTUALIZATION**

Preece and Mosweunyane (2003) note that human capital relates to skills training and information about how to use existing resources effectively. This is echoed by Massachusetts Institute of Technology economist Thurow (1992) who sees human capital, or education, skill levels, and problem-solving abilities, as prerequisites for enabling an individual to be a productive worker in the twenty-first century global economy. The presumption is that an educated labor force is better at creating, implementing, and adopting new technologies, and thereby generating growth. Nelson and Phelps (1966) pointed out that human capital accumulation has long been stressed as a prerequisite for economic growth.

They further revealed that human capital levels affect the speed of technological catch-up and diffusion. The ability of a nation to adopt and implement new technology from abroad is a function of its domestic human capital stock. Romer (1990) postulates that human capital may directly influence

productivity by determining the capacity of nations to innovate new technologies suited to domestic production. The country with the highest stock of human capital will eventually emerge as the technological leader and maintain its leadership as long as its human capital advantage is sustained.

## **The Role of Curriculum in Educational Development**

Farrant (1991) defines curriculum as that which the student is supposed to encounter, study, practice and master. Curriculum is a set of decisions about what is taught and how it is taught, which determine the general framework within which lessons are planned and learning takes place. Curriculum may refer to a defined and prescribed course of studies, which students must fulfill in order to pass a certain level of education, its entire sum of lessons and teachings designed to improve national testing scores or help students learn the basics. A curriculum is prescriptive, and is based on a general syllabus which specifies what topics must be understood and to what level to achieve a particular grade or standard.

Russell (1997) indicates that in a knowledge-based era of economic development, education as the fountainhead of knowledge has assumed added importance. In fact, education works as a driving force in the development of a country and brings much-needed intellectual capital and technological changes, making the economy more competitive and innovative. Knowledge and technology, being the intrinsic components of education, have emerged as integral parts of the economic system of developed economies. The major economies of today, including the US, China, Japan, Russia and other emerging economies owe a great deal to high skill and education levels. The key driver of growth is human capital, which, taking advantage of the information revolution and fast and efficient electronic communication, has accelerated the process of production and raised the volume of global trade beyond all expectations.

## **CONTEXTUALIZATION**

### **International Context**

As noted by Thurow in his proactive study *Head-to Head: The Coming Economic Battle among Japan, Europe, and America* (1992), in the first twenty five years after World War II the global economy was characterized by niche competition. “The United States,” according to Thurow, “exported agricultural products foreign competitors did not grow, raw materials they did not have and high-tech products they could not build”. High wage products in Germany and Japan were low-wage products in America and imports to America from these countries did not threaten jobs. In these years, America was the world leader in terms of its economic output. In the late 1940s, America’s Gross Domestic Product (GDP) represented half of the worlds, and per capita GDP was four times that of West Germany and fifteen times that of Japan.

Today, the tables have turned and Asia now leads the pack. Thurow indicates that by the late 1980’s, America’s share of the world’s economy had fallen by half, and in 1990, Japan’s per capita GDP was slightly higher than America’s. America lost its dominance in steel and machine tools, chemicals and autos, and television and consumer electronics production. This is in part because of increased investment in the quality of human capital stocks in Asian countries.

Hershburg (1996) observes that, in his 1996 State of the Union Address, President Clinton cited the need for K-12 schools to adopt rigorous academic standards as one of the six challenges facing America. Soon afterwards, 41 of the nation's Governors and 49 corporate leaders met at the National Education Summit, hosted by IBM, and agreed that standards and assessments were the number one priority. In a similar way the time has come to ask what kind of workers Botswana has now and must have in the future. What kind of qualities must workers have if companies are to succeed in product and process technologies? What kind of employees do high performance work organizations need to succeed without layers of middle

management? Research suggests that they will have to be flexible, adaptable, quick learners and problem solvers. Are those the kind of skills being developed by our education and training system?

## **Botswana Context**

In examining Botswana's education and vocational training system, it is clear that curriculum is subject-based and dichotomous, that is, theory is separated from practice. The government has tried to infuse practical subjects into the curriculum, however, it has been noted that these practical subjects are still taught abstractly. Education commission reports (Education for Kagisano: Report of the National Commission on Education, 1977; Revised National Policy on Education Report, 1994) also point to evidence that more prominence is accorded academic education. When one has failed in their academic education, he or she then enrolls in vocational education, offered by Brigades and Vocational Training Centres, as a second choice. This education in turn is limited to the acquisition of manual skills and does not include competency skills that nurture an adaptable worker and are required by the rapid changes in today's labour market. Increasingly in countries around the world, practical and vocational studies are no longer thought of as subordinate to general education. In the new school, it is argued, work and education must meet on equal terms. Consequently, the search is on for new ways to combine theory, practice and production in an interactive and dynamic pedagogy.

The government of Botswana continues to seek ways to maximize training opportunities. The government recently established the Tertiary Education Council (TEC) and Botswana Training Authority (BOTA). The development of standards, qualifications and curriculum for the vocational training system, as well as registration and accreditation with quality assurance institutions, was enhanced. The Vocational Training Fund (VTF) was created as an incentive by the government to assist companies in upgrading employee's skills. Consensus seems to be that the fund is under-utilized and very few companies have heeded the call to contribute to it. At present, TEC and BOTA are being merged to spearhead tertiary education and vocational training as a single entity.

A recent TEC (2005) consultation paper highlights fragmentation, a system that is characterized by multiple accountabilities and that is ambiguously defined, lacks coherence and strategic direction, as a defining characteristic of vocational education in Botswana. Overlaps between the Tertiary Education Council and the Botswana Training Authority were cited frequently as were the number of tertiary institutions being separately run by various Government Ministries with little or no high level co-ordination. The present training system is characterized by the absence of a proper mechanism for the financing of training, which is almost entirely dependent on the government. Currently there is also a National Human Resources Development Strategy, which sets out the broad macro-level human resource goals for the country, a Tertiary Education Policy, which provides guidelines on how tertiary education should meet human capital development goals, and a Botswana National Qualification Framework.

According to the Government of Botswana's 10<sup>th</sup> Biennial Report (2006), Botswana embarked on a number of projects, including the expansion of the University of Botswana and a review of its governance and management structures in order to respond to global and local changes in higher education. The capacity of the Institute of Health Sciences was increased in terms of infrastructure, human resources, intake, and programmes. The government also established a new medical school, the Oodi and Selebi Phikwe Colleges of Applied Arts and Technology, and Francistown College of Technical and Vocational Education. Botswana International University of Science and Technology (BIUST) is being established to increase access to tertiary education and to facilitate development of skills and competencies that will promote research and innovation. BIUST will seek to partner with industry, as well as local and international institutions to facilitate exchange programmes and work placements to ensure relevance to the world of work for both staff and students. These major projects are expected to go a long way in building the human resources required to meet the challenges of the 21<sup>st</sup> century and beyond.

## **Justification for the Need of Pre-Vocational Training**

With the world becoming more of a global village, the importance of developing competitive human resources cannot be understated. Training in the traditional way, with long training cycles is less and less effective. Systems have to be put in place to promote continuous learning and to keep the workplace up-to-date on the latest technology and techniques. The pace at which knowledge and skill are becoming obsolete, however, points to the need for the establishment of a life-long learning culture. Such a feat cannot be achieved by social partner, government, employer or worker alone. A strong partnership will go a long way towards avoiding wastage in training and making sure that training is demand-driven in line with the needs of business and industry. To date, the government remains committed to investments to improve access to pre-school education, the provision of ten years of basic education for all, increased access to senior secondary education, the expansion of vocational and technical training and the promotion of life-long learning.

In general, public tertiary education institutions have been slow to respond to changes in the labor market, have failed to establish linkages with the market, and have not responded sufficiently to improve the employability of graduates through curricula adaptation and quality improvement. Indications from employers also suggest that while many of the graduates entering the labor market are sufficient in terms of specialist knowledge, they lack critical analysis skills. Private institutions have been more responsive to labor market demands, and when certain employers required certain types of skills, have been quick to devise new programmes. However, as noted below, many of these institutions are far from being well established and are largely disconnected from the core developments of the country's tertiary education system.

It is important that vocational education and training improve its responsiveness to rapid changes in demand for skills development, that it address skills shortages, especially in traditional trades and emerging industries, and that it deliver improved outcomes for employers, individuals and communities. Employers are seeking a national training system that offers more choice and flexibility, graduates with improved skills outcomes, training packages which deliver graduates the right skills sets, and opportunities for businesses to engage directly with training providers. Addressing these key issues will give rise to an industry that has a highly skilled workforce able to support strong performances in the global economy. This, in turn, will address challenges related to an ageing population, increased global competition, changing industry needs and potential skills shortages.

If Botswana's economy is to operate near full capacity, government policies will need to focus on human resource skills development, given the positive link between education and workforce participation and productivity. Moreover, those with higher level education are generally more employable and able to earn higher wages than those without.

On a positive note, in a local Mmegi newspaper, dated 21<sup>st</sup> October 2011, the Department of Curriculum Development and Evaluation is said to be reviewing the curriculum, which has not been reconsidered since its inception in 1996. The Department contends that the current curriculum prepares students to pass examinations, rather than instilling sustainable practical skills that broaden opportunities after basic education. The curriculum is unable to unleash learner's potential because it is exam-oriented. Besides lacking practical/vocational components, the syllabi are found to be congested, and of limited flexibility in turn hindering learners ability to make subject choices in line with their career interests.

An evaluation of Botswana's General Certificate of Secondary Education commenced in 2008 and was undertaken by the University of Botswana, Cambridge and a team of curriculum development officers. The new programme that will be operational in 2013 is comprised of four learning areas: Core, Options, Electives, and Basic Life Skills. The Department argues that these changes will help to develop an enterprising culture and creating awareness of the centrality of economic and financial literacy.

## **DISCUSSIONS**

This paper contributes to the understanding of how vocationalizing the curriculum can enhance the human capital accumulation necessary for economic growth. It is clear from this review that Botswana's curriculum is subject-based and dichotomous and theory is separated from practice. Lekoko (2008) points out that Botswana has relied exclusively on one knowledge system, formal education, to prepare individuals for the world of work. This is so because of the emphasis on the formal employment sector for which formal schools are considered the best and only means of providing education and training. Unfortunately, this type of education has its shortcomings and graduates often lack skills needed for the world of work. Graduates do not fit easily into the development activities of the country and the courses that are taught are not relevant to the requirements of the productive sector.

It would be important, then, to pay more attention to match what the labor market needs and what education institutions emphasize in their programming. This mismatch between the school system and industry presents an enormous national challenge. The significant and relevant vocationalization of the curriculum will be fundamental to addressing this challenge. Curriculum should be designed to build specific critical thinking skills that are now considered weak or lacking among graduates. While a variety of specific content areas are addressed in academic disciplines, the primary emphasis should be on skill development. While content topics are important in building student interest, skill development is foundational to the future success of graduates.

Another issue that needs to be considered is the fact that a working partnership between industry and the education sector is absent during curriculum development. Curriculum is a result of a complex process involving a variety of actors. Traditionally, the subject matter has been determined by educators who, taking social or private values into account lay out the syllabi and number of periods each subject should be taught. It is imperative that policy-makers and educators develop curricula in partnership with industry. Stakeholder forums should be a prominent feature of the laying out of subject matter. A wholesale rethink of curricula is required as many programmes are still entrenched in the traditional development paradigm and industry partnerships and input will be helpful in this regard.

It is critical that policy-makers, educators and industry fully understand the potential strategic pay off of the investment made in the training and development. Vocationalizing the curriculum will always have its challenges, but if it is to be viable it will require the provision of adequate equipment and materials and operations such that they can be maintained and replaced. There is also need to provide professional training for vocational educators to enhance their instructional quality.

## **CONCLUSIONS**

This analysis has surveyed the gap that exists between industry and the education sector. This lack of cohesion has led to a surplus of educated unemployed people and, at the same time, shortages of skilled personnel. Human capital development through education must be given greater priority by the government so that the country does not continue to depend on expatriate skilled labor for its development. We do, of course, stand to benefit in many ways from the skilled services of those from other friendly nations. Until we have adequate human resources of our own, these will continue to be vital to our development. However, our future as a nation lies in training our own skilled workforce and moving towards self-reliance. We must therefore begin to expand and enhance our vocational education and training and plan for our own development.

## **Recommendations**

- Curricula should equip students with the relevant productive and occupational skills that will enable them to enter into gainful employment.
- Curricula should be restructured to integrate both the academic and practical towards proving trained human resources to meet industry demand.
- Educators and curriculum reformers should engage all key stakeholders (including industry) in the developmental to the implementation stage of integrated academic and practical curricula.
- Vocationalization can be achieved through greater local flexibility, better teaching facilities and equipment, and the provision of more technical assistance
- There is a need to increase the attractiveness of vocational education in schools by increasing the numbers of qualified facilitators through the provision of professional development.

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