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Cambodia and the ASEAN Economic Community: Opportunities, Challenges, and Implications for Human Resource Development

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Abstract: The purpose of this paper is to examine the opportunities, challenges, and implications for human resource development (HRD) for Cambodia in joining the Association of Southeast Asian Nations (ASEAN) Economic Community in 2015. The paper starts by providing an overview of ASEAN as a regional institution and the rationale for the ASEAN Economic Community (AEC) 2015. The second section outlines and discusses current HRD practices in Cambodia, which include the country's National Strategic Development Plan and Rectangular Strategy, higher education system, vocational and technical education system, and HRD through the private sector. What follows is an in-depth analysis of the main HRD challenges facing Cambodia, namely ASEAN integration challenges, mismatches between education and employment, problems with higher education and technical and vocational education systems, challenges in technology development and HRD, and a lack of awareness and engagement in the AEC processes. The paper concludes by discussing the implications for research and practices as regards Cambodia's integration in the ASEAN Economic Community.

Keywords: Cambodia, Human Resource Development, National Human Resource Development, ASEAN Economic Community, ASEAN Integration

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Abbreviations:

AEC: ASEAN Economic Community

ASEAN: Association of Southeast Asian Nations

HEI: Higher Education Institution

HRD: Human Resource Development

IAI: Initiative for ASEAN Integration

ICT: Information and Communications Technology

ILO: International Labour Organization

MoEYS: Cambodia's Ministry of Education, Youth, and Sport

NAFTA: North American Free Trade Agreement

NHRD: National Human Resource Development

NSDP: National Strategic Development Plan

RGC: Royal Government of Cambodia

TVET: Technical and Vocational Education and Training

UNDP: United Nations Development Programme

Cambodia and the ASEAN Economic Community: Opportunities, Challenges, and Implications for Human Resource Development

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Introduction

The Association of Southeast Asian Nations (ASEAN) was formed in 1967 with the purpose of maintaining regional peace and security. ASEAN, however, has faced competitive economic threats from other regional bodies, such as the North American Free Trade Agreement (NAFTA) and the European Single Market, as well as from countries such as China and India (Chia, 2011). To respond to these challenges and deepen the economic integration of its member countries, the organization has developed a proposal for the ASEAN Economic Community (AEC), to be put in place in the year 2015. The main goal of the AEC 2015 is to transform the ten-member ASEAN into a single market and production base – rendering it more dynamic and competitive with new mechanisms to strengthen its current economic initiative – through enhancing regional integration in priority sectors, assisting in the movement of talented and skilled labor and business persons, and bolstering ASEAN’s institutional mechanisms (ASEAN Secretariat, 2008).

Cambodia, one of ASEAN’s member countries, has enjoyed remarkable economic progress over the past decade but faces many human resource development (HRD) challenges, especially in preparation for the AEC 2015. The purpose of this paper is to examine the opportunities, challenges, and implications for HRD in Cambodia arising from joining the AEC 2015. The significance of this study is two-fold. First, it makes a contribution to the virtually nonexistent literature on ASEAN and Cambodia in the field of HRD. Such paucity of research in the HRD literature is puzzling, given that ASEAN is a rapidly growing economic region and has a population of around 600 million, thus rendering human capital and HRD issues especially relevant and significant. Although it should be noted that articles on some of the individual countries that make up the ten-member ASEAN body can be found in the relevant HRD journals – for example, Thailand, Vietnam, Malaysia, and Singapore – we could not find any articles that provide an overview of ASEAN as a whole or report results of in-depth analyses of an individual country’s human capital or HRD issues specifically in relation to country’s membership in ASEAN. Finally, this study offers a fresh perspective on the opportunities, practices, and challenges of national HRD in a small, developing Southeast Asian nation that is often overlooked in the literature: Cambodia.

Findings from this study were derived from an extensive literature review utilizing major online databases such as Academic Search Premier, Wiley Online Library, and Sage Library. In addition, we selected key publications from governmental and non-governmental agencies such as the Asian Development Bank, the World Bank, UNDP, ASEAN Secretariat, Cambodia’s Ministry of Education, Youth, and Sport (MoEYS), and Ministry of Economy and Finance, to

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name a few. We also conducted a targeted search of tables of contents of several major relevant to this project, including *Asian Economic Policy Review*, *Asia Pacific Journal of Human Resources*, *Human Resource Development International*, *Advances in Developing Human Resources*, *International Journal of Education Development*, *International Review of Education*, and *Journal of the East Asian Economic Association*. Some descriptors (keywords) employed in our literature search were *Cambodia's Human Capital*, *National Human Resource Development*, *ASEAN Integration*, and *ASEAN Economic Community*.

The first section of this paper provides a brief overview of the history of ASEAN and its rationale for establishing the AEC 2015. AEC's commitments to allowing for free movements of labor, developing human resources, and strengthening research capacities among the ten member states, bring about exciting opportunities for Cambodia with regard to its socio-economic and workforce development. However, Cambodia also faces many challenges in its attempt to compete with other countries of the region. Hence, the main research question for this study is: *What are the main HRD opportunities and challenges for Cambodia in joining the AEC 2015?*

The second section provides a contextual overview of Cambodia. This overview will demonstrate, among other things, a strong need for major national HRD initiatives. The third section examines current HRD practices in Cambodia through both private and public lenses. The fourth section includes an analysis of the HRD challenges facing Cambodia, including ASEAN integration challenges, a mismatch between education and employment, problems with its higher education and technical and vocational education systems, challenges in technology development and HRD, and limited awareness and engagement in the AEC processes. The paper concludes by discussing the implications for research and practice.

Background: The Association of Southeast Asian Nations (ASEAN)

ASEAN was established in 1967 and currently consists of ten member states. As a political-security organization, ASEAN has managed to achieve peace and security throughout the region, despite occasional eruptions of bilateral territorial disputes among its member states (Chia, 2011) – for instance, the current standoff between Cambodia and Thailand. In economic terms, however, ASEAN faced “competitive threat” (Chia, 2011, p. 43) from NAFTA and the European Single Market; consequently, it launched the ASEAN Free Trade Area in goods in 1992, followed by more liberalization of services and investment flows. The subsequent rise of China and India has posed serious economic threats to the region's economy (Chia, 2011) and contributed to the establishment of the ASEAN Economic Community (AEC) in 2003, which typifies the organization's serious efforts in deepening the economic integration of its member countries (ASEAN Secretariat, 2008).

ASEAN endeavors to deepen and broaden economic integration for a number of reasons. According to its blueprint, the AEC, visioned for 2020 but later pushed to 2015, will establish ASEAN as a single market and production base, rendering it:

...more dynamic and competitive with new mechanisms and measures to strengthen the implementation of its existing economic initiatives; accelerating regional integration in the priority sectors; facilitating movement of business persons, skilled labor and talents;

and strengthening the institutional mechanisms of ASEAN. (ASEAN Secretariat, 2008, p. 5)

Additionally, several benefits of integration have been discussed in the current literature. As noted by Chia (2011, p. 50), such economic integration can lead to an “enlarged market with economies of scale and scope,” better resource allocation, competition leading to improved efficiency and innovation, and better-quality human resource pools resulting from free movements of the labor force.

It is within this context of workforce development and free flow of skilled labor that Cambodia is the topic of discussion for this paper. The AEC Blueprint (ASEAN Secretariat, 2008) stated that the AEC 2015 would allow for “managed mobility or facilitated entry” (p. 15) for the movement of people involved in the trading of goods, services, and investments, and in so doing would implement actions that facilitate the issuance of visas and reduce employment red tape for ASEAN professionals and skilled labor. In working toward such “harmonization, standardization” (ASEAN Secretariat, 2008, p. 16), and free labor movement within the region, the AEC strives to foster cooperation among ASEAN University Network members to encourage mobility for students and staff, engage in HRD initiatives aimed at developing the competencies and qualifications of the labor force, and last but not least, bolster the research capabilities of its member states in terms of “promoting skills, job placements, and developing labor market information networks” (p. 16) among the countries.

These commitments to allowing for free movements of labor, developing human resources, and strengthening research capacities among the ten member states, bring about exciting opportunities for Cambodia as regards its socio-economic and workforce development. However, Cambodia also faces many challenges with respect to this transnational collaboration as well as competition within ASEAN. Before discussing those human capital challenges in greater depth, we will first provide a contextual overview of the developing Southeast Asian nation and examine the current HRD practices in the country.

Country Overview: Cambodia

After decades of war, genocide, and domestic conflict, Cambodia finally regained political stability in the 1990s. From 1975 to 1979, the infamous Khmer Rouge genocide regime emphasized “manual labor and political correctness over knowledge” (Ledgerwood, 2002, para. 2), and deliberately destroyed the country’s infrastructure, human resources, and education system. Educated Cambodians such as doctors, lawyers, professors, teachers, and former college students were either killed or forced to work in labor camps. Overall, at least 1.7 million people were killed; needless to say, the regime is widely regarded as one of the darkest moments in the country’s history.

Fast forward four decades, despite being a relatively small economy – with a Gross Domestic Product (GDP) of \$14.06 billion (World Bank, 2012) – Cambodia appears to be enjoying considerable progress. The country’s real GDP grew at a double-digit rate from 2004 to 2007, and 6.7% in 2008 (Ministry of Economy and Finance, 2012). Not surprisingly, the impact of the global financial crisis was strongly felt and real GDP only grew by 1% in 2009. The country’s economy then began to pick up, with real GDP increasing by 6%, 7.1%, and 7% in 2010, 2011, and 2012 respectively (Ministry of Economy and Finance, 2012). It is important to note that

the country's economy is composed of three main sectors: services (41%); agriculture (34.7%); and industry (24.3%) (CIA, 2012).

The remarkable growth in the economic sector, coupled with recent political stability, has undoubtedly provided the country with great opportunities to invigorate its social and education sectors (Chet, 2009). The AEC 2015 vision also offers new avenues for the country's workforce development. With a population of 14.8 million, of which 70% are between the ages of 14 and 30 (World Bank, 2012), it is understandable that Cambodia's human resources play an important role in the ASEAN integration.

Opportunities for Cambodia in the AEC 2015

Globalization is a double-edged sword. As Ardichvili and Kuchinke (2009) pointed out, its various impacts in the social, economic, political, and cultural arenas have not only generated optimism toward peace, prosperity, and growth, but also engendered controversies over the widening gap between the rich and the poor, the overutilization of scarce resources, and sustainable development.

The AEC 2015 is emblematic of such optimism and concerns about a globalized world. To accomplish its integration objectives, ASEAN fully recognizes that there needs to be facilitation of movement of skilled workforce, cooperation between members of its university network, development vis-à-vis core competencies, skills, and qualifications of the workforce, and reinforcement of research capabilities of its members (ASEAN Secretariat, 2008).

The organization, however, also recognizes the disparity between the levels of development among the ten member countries (ASEAN Secretariat, 2008). In order to maximize the benefits of ASEAN integration, there must also be technical and development cooperation to "address the development divide and accelerate the economic integration of less developed ASEAN member countries" (p. 24) such as Cambodia, Laos, and Myanmar. In line with this, ASEAN launched the Initiative for ASEAN Integration (IAI) in 2000, which is tasked with directing and sharpening the collective focus of its members to narrow the development gap both within ASEAN and between the ASEAN and the world (ASEAN Secretariat, 2008). The key priority areas of the IAI include infrastructure, HRD, information and communications technology (ICT), capacity building for regional economic integration, poverty reduction, and improvement in the quality of life.

With these thoughts in mind, it suffices to say that Cambodia has a great, albeit extremely challenging, opportunity to do things the right way. Cambodia is one of the most youthful countries in the Southeast Asian region and has the second highest projected labor force growth from 2007 to 2015 with 22%, after Lao PDR with 25% (UNDP, 2011). "Excellent" national HRD (NHRD), as suggested by Cho and McLean (2004, p. 390), could result in the elimination of functional illiteracy, child labor, and employment in socially stigmatized occupations (e.g. prostitution, drug dealing, and other illegal activities); development of quality primary, secondary, and higher education; improvements in health; and promotion of cross-boundary movements of skilled and legal labor force, all of which sectors are of paramount importance to Cambodia.

Current HRD Practices in Cambodia

HRD is defined as “any process or activity that, either initially or over the long term, has the potential to develop adults’ work-based knowledge, expertise, productivity and satisfaction whether for personal or group/team gain, or for the benefit of an organization, community, nation or, ultimately, the whole of humanity” (McLean & McLean, 2001, p. 322). Analyzing a country’s NHRD as proposed by various scholars, should involve investigating the education, training and development programs, policies, strategies, and mechanisms provided by various key stakeholders, such as the central government, local governments, communities, private enterprises, and unions (Cho & McLean, 2004; Harbison & Myers, 1964; Lynham & Cunningham, 2006).

Cho and McLean (2004) delineated five emerging models of NHRD: centralized model, transitional model, government-initiated model toward standardization, decentralized/free-market model, and small-nation models. Although it should be noted that there is no “pure” model for each country, Cambodia’s NHRD fits the transitional model best because the country’s HRD policy is “featured by the tripartite approach drawing on employers, unions, and the government” (Cho & McLean, 2004, p. 384). This tripartite relationship ascertains that there is agreement over the strategies, mechanisms, and policies governing NHRD; thus, coordination between the three constituencies is of great significance. In Cambodia, however, NHRD elements other than the higher education and technical and vocational education systems are not developed and often neglected. Also, coordination between the government, private companies, and unions is relatively nonexistent. Given this context, Cambodia’s NHRD can be considered a very weak version of the transitional model.

In examining Cho and McLean’s (2004) five models, Lynham and Cunningham (2006) proposed four dimensions for analyzing NHRD: political, economic, social, and education systems. They argued that “each of these dimensions, separately and together, informs the needs and necessary goals of NHRD” (p. 124). This is even truer for developing nations such as Cambodia, where HRD is absolutely integral to the development of the country; as such, enacting a balance between the four dimensions is necessary. In the previous sections, we have alluded to the political, economic, and social systems of Cambodia. Given the scope of this study, we are going to focus more on the country’s current HRD practices in terms of the National Strategic Development Plan, higher education system, technical and vocational education system, and HRD through private and public lenses.

National Strategic Development Plan (NSDP)

In the NSDP, the Royal Government of Cambodia (RGC) (2010) has reiterated their firm stance on striving to move towards socio-economic development and poverty reduction. The RGC (2010) has established national goals and strategies aimed at:

Improving and enhancing institutional capacity, promoting good governance, modernizing economic infrastructure in order to foster economic growth, create jobs for all citizens, ensure social equity, and increase public sector efficiency as well as protect natural and cultural resources, which is vital for sustainable development and poverty reduction. (p. ii)

In order to achieve these goals, the RGC has formulated the so-called “Rectangular Strategy” (see Figure 1, Rectangular Strategy), a conceptual framework for action and implementation that specifically addresses four key elements that are deemed vital for Cambodia’s development: (1) enhancement of the agriculture sector, (2) further rehabilitation and construction of physical infrastructure, (3) private sector development and employment generation, and (4) capacity building and human resource development.

Figure 1. Rectangular Strategy. Adapted from National Strategic Development Plan (p. 60), by Royal Government of Cambodia, 2010, Phnom Penh, Cambodia: Government Printing Office.



The fact that Capacity building and HRD constitutes a major component of the four “growth” rectangles of the RGC’s rectangular strategy evidences the government’s full recognition of the significance of education and HRD in achieving the country’s development goals. The RGC (2010) has maintained that strengthening the quality of education “has been and remains a high priority” (p. 61) and has taken major steps to accomplish this objective. The RGC increased the education budget from USD 45.8 million in 2000 to USD 185.6 million in 2009 and has prioritized the following three areas in the education sector: ensuring equitable access to education, improving quality and efficiency of education services, and strengthening institutional development and capacity building for decentralization. To achieve these desired outcomes, MoEYS has taken the following actions (RGC, 2010):

- Increased the number of primary, lower-secondary, and upper-secondary schools from 8,628 in academic year 2005-26 to 9,834 in 2008-09.
- Increased the number of teaching staff from 78,606 in academic year 2005-06 to 81,350 in 2008-09.
- Expanded educational facilities including increasing the number of classrooms and more accessible facilities for students with disabilities.

- Continued investments and efforts to pursue long-term strategy in Higher Education. This includes providing scholarship opportunities for outstanding students, poor students, students from the remote areas, and female students.
- Renewed school curriculum; issued guidelines on the implementation of the new curriculum for basic education
- Assessed and accredited some public and private higher education institutions.
- Drafted a strategic plan to decentralize the education function.

The RGC has been cautiously optimistic about the progress that has been made particularly in the education sector. It also recognizes the many challenges that remain, which will be discussed in the penultimate section of this paper.

Higher Education in Cambodia

Unlike many other countries, the higher education sector in Cambodia was completely abandoned for about three years during the Khmer Rouge genocide regime (1975-1979). At present, there are 105 higher education institutions (HEIs) in the country, 39 of which are public and 66 are private, and are located in 18 provinces and in the capital city, Phnom Penh (MoEYS, 2014). In the academic year 2012-2013, 253,764 students were enrolled in a 4-year program, of which 40.12% were female. Four of the biggest HEIs in Cambodia are The Royal University of Phnom Penh, National University of Management, Royal University of Law and Economics, and National Institute of Education. These four HEIs are now “independent and operating equally under the supervision of the MOEYS as their in-charge or parent ministry” (Chet, 2009, p. 156). However, only the old Royal University of Phnom Penh is a multi-disciplinary university; the other three are specialized in certain academic subjects.

MoEYS (2014) acknowledges that higher education in Cambodia still faces great challenges. For instance, there is a lack of resources for institutions (e.g. laboratories, computers, etc.), a lack of focus on research, an imbalance between the number of instructors and students, and the limited capacity of professors. Other challenges include issues of quality assurance, research capacities, academic freedom, as well as mismatch between education and employment (Chet, 2009; UNDP, 2011).

Technical and Vocational Education and Training (TVET)

Over 80% of Cambodia’s population lives in the rural areas and about 68% of the country’s labor force is employed in the agricultural sector (National Training Board, 2009). As of 2004, 24% of the workforce had either no or little formational education, 43% had not completed primary school, and over 75% were self-employed as unpaid family workers (ADB, 2009). Despite notable increases in education enrollment at secondary level and in higher education, the country’s labor force still faces great challenges in meeting the skills demands of the labor market.

TVET offers training to those looking to enter the workforce for the first time and also offers existing workers a chance to upgrade their skills (ADB, 2009). TVET in Cambodia is critical; with the majority of Cambodia’s population living outside the major cities and other industrializing parts of the country, any HRD interventions must be directed toward these rural areas. TVET can help improve agricultural productivity and provide the rural population

with the “livelihood skills needed for self-employment” (p. 6). In addition, TVET is expected to “provide the pool of skilled labor that can contribute to greater productivity in existing industries and help to attract investment in new, competitive industries” (p. 6).

Cambodia’s TVET system is still in its “infancy as a discrete post-school vocational training system” (ADB, 2009, p. 1) and is managed by the Ministry of Labor and Vocational Training. The system is essentially “supply-driven” (p. 2) and consists of 25 provincial training centers responsible for providing non-formal education and training programs to rural citizens. There are also 11 polytechnics and institutes providing formal TVET courses to a “predominantly urban-based population” (p. 2). In 2008, there were only 2,200 graduates from the formal TVET certificate and diploma courses, of whom about 1,500 were from technical programs; and 756 graduates with a TVET bachelor’s degree, about half of whom were in the technical fields. As for non-formal TVET, short non-formal training programs are offered through the 25 provincial training centers and address topics such as basic agriculture, construction, motor repair skills, crafts, and basic food processing (ADB, 2009).

HRD through the private sector

We have previously identified that Cambodia’s NHRD model fits best with Cho and McLean’s (2004) proposed transitional model, in which collaboration between the government, employers, and other institutions is absolutely essential. Needless to say, private sector involvement in the country’s HRD is a key priority (RGC, 2010; UNDP, 2011). For instance, according to the National Strategic Development Plan, strengthening the private sector and attracting investment, as well as creating jobs and improving working conditions are a prioritized area for the government (RGC, 2010).

As stated in the NSDP, employment generation and development in the private sector is deemed a priority in the country’s national development plan. HRD in the private sector in Cambodia is typically focused on employee training. An International Labour Organization (ILO) (2013b) survey found that 62% of establishments “provided some form of training to their employees” (p. 60). In addition, the percentage of establishments that offered training to their employees was directly related to the size of the establishments: 37.8 % of small establishments, 64.4% of medium-sized establishments, and 79.6% of large establishments. As expected, foreign-owned organizations (73%) were more likely to offer training to employees than Cambodian establishments. Similarly, establishments operating in the international market were more likely to provide training than those operating in the local market. Training provision also varies by sectors (ILO, 2013b). For instance, 94.5% of establishments in the finance and insurance sector provided some forms of training, followed by the garment sector at 61.6%. 45.1% of food and beverages establishments offered some training whereas only 27.3% of rubber and plastics establishments were inclined to do so. Finally, types of training also varied, with induction training being offered the most (by 70.4% of establishments), followed by training in new technology or products (41.4%) and occupational health and safety (38.6%). Interestingly, foreign language and literacy/numeracy skills training were provided only by 19% and 12.5%, respectively, of the establishments.

The government has a vision of “private sector-led growth” but progress has been largely restrained by “institutional fragmentation on the government side” (UNDP, 2011, p. 88). Efforts to engage the private sector in human capital development would require “direction,

policy, support, services, and social and physical infrastructure” (p. 88), all of which are lacking to a great extent in this context. As such, HRD through the private sector is still in underdeveloped and a lot of improvement – particularly in terms of coordination, collaboration, support, and infrastructure – needs to be made.

Despite the challenges, a number of initiatives have taken place; for instance, the Government-Private Sector Forum, which so far has received favorable assessment, has been able to deliver measurable outcomes and improved processes in areas such as labor standards and private sector investment (UNDP, 2011). In addition, small and medium enterprises (SMEs) have been encouraged to work with the government to examine various strategies such as working in clusters, developing workers’ skills, seeking support from the government to train workers, and acquiring government incentives (UNDP, 2011). Given the growing training costs and technological challenges, collaboration between the government and private institutions are becoming more and more important and relevant (UNDP, 2011).

Challenges for Cambodia in Joining the AEC 2015

There is little doubt that Cambodia lags behind many of its neighboring countries in economic and workforce development. For instance, a recent UNDP study (2009, as cited in Chan & Strange, 2012) reveals that Cambodia’s “competitiveness indicators are among the lowest in the region in many fields, including skills and human resources, technology, infrastructure, regulations, and institutions” (p. 43). In order to fully benefit from this ASEAN integration, Cambodia needs to address a number of major HRD challenges, such as the mismatch between education and employment, problems, higher education and TVET systems, and the lack of awareness and engagement in the AEC processes, and the lack of technological infrastructure.

HRD Challenges

Cambodia’s demography is highly influenced by its history over the last four decades. The Khmer Rouge regime left 1.7 million people dead and dramatically impacted the demographics of the country. The country experienced two baby booms – in the 1980s and 1990s – which have engendered what is called a “youth bulge” (UNDP, 2011, p. 26) in the population structure. Such an extremely high youth-dependency ratio undoubtedly renders human capital development in the country extremely critical. Currently, the country’s standard educational attainment indicators are among the lowest in the ASEAN region and the world, with illiteracy rates higher than its neighbors except Laos (Lall & Sakellariou, 2010). The weak education system “represents a significant burden in terms of public and private costs of education, which reduces the private and social returns to schooling and, therefore, economic growth” (p. 333).

Mismatch between Education and Employment.

One of the most important aspects of education is that it can create a skilled workforce and create returns on investment in education for students as well as the overall economy when they enter the labor force (UNDP, 2011). Findings from Lall and Sakellariou’s (2010) study revealed that the Cambodian labor market has greatly transformed over the past ten years. In 1997, university-educated workers earned only twice as much as those with no formal education, thereby offering very limited association between education and workers’ wages. In

2003 and 2007, a university graduate could earn, on average, 3 and 3.3 times more than those with no formal schooling, respectively (Lall & Sakellariou, 2010).

It must be noted, however, that the average income in Cambodia is very small, which implies that this apparent increase in the returns on investment in education is still low when compared to other countries. For instance, in 2007, the average wage for a Cambodian who had completed primary school was 58.14 USD per month, whereas those who had finished high school only earned 62.17 USD – an increase of only 4.03 USD (UNDP, 2011). In addition, a person with university degree could earn only 141.74 USD per month, whereas a TVET graduate had an income of 115.55 USD per month (UNDP, 2011).

The official unemployment rate in Cambodia – referring to those who are unemployed and actively looking for work – can be misleading. At 2.7% (ILO, 2013a), this figure is extremely low. However, this is mainly due to the fact that many people are “forced to find some kind of employment rather than having no income at all” (UNDP, 2011, p. 41). This means engaging in informal economic activities, such as self-employment or working as an unpaid family worker. The quality and pay of these jobs are usually very low and do not match a person’s qualifications (UNDP, 2011). The formal sector employment in Cambodia, despite recent economic growth, is still very small and paid employees only account for 23.3% of the workforce (UNDP, 2011). Such a low proportion indicates that the education system does not produce adequate graduates capable of contributing to the overall workforce, or that the economy does not generate enough employment opportunities for graduates.

A report by HR Inc. (2010) revealed potential mismatches between the demand of the labor force and the supply of university graduates. Over the six years from 2009 to 2014, higher education is projected to supply around 220,000 bachelor’s degrees; however, the labor market is projected to absorb only around 86,000 graduates. Also, there is a huge imbalance between students’ fields of study. There seems to be an oversupply of business, management, IT, and foreign languages graduates, whereas fewer students enroll in fields that are in demand, including health sciences, engineering, marketing, and agriculture and rural development (HR Inc., 2010). MoEYS (2010, p. 6) also acknowledged this problem and recognized that there needs to be an increase in the “number of students with unpopular majors” and to develop new majors that are central to the country’s growing economy.

Because of these mismatches, the government is currently drafting a national policy to boost Cambodia’s development in science, technology, and innovation, as the country “endeavors to catch up with its regional neighbors and internally” (Phnom Penh Post, 2013, para. 1). The main goal of this new policy is to promote research and develop the human resources needed for science and technology. As an advisor to the Development of National Policy on Science, Technology, and Innovation stated: “If you look at the 10 ASEAN countries, only Cambodia doesn’t have a national institution for directing, leading and coordinating science” (Phnom Penh Post, 2013, para. 7). The draft policy is awaiting final approval by the government and is expected to become a national strategic plan.

Finally, the education–employment mismatch also results from the poor quality of the current education system. With 70% of the population under the age of 30, youth represent an enormous resource for Cambodia. However, as Mysliwiec (2005, as cited in Ros, 2010) argued, the education system, albeit slowly growing, is still weak and does not provide young

Cambodians the skills needed to find and sustain employment or to effectively contribute to the society as a whole. Higher education stakeholders are increasingly aware of the concept and issue of quality assurance in higher education, as opposed to the “more traditional concept of quantity and accessibility” (Ros, 2010, p. 66); and it is getting more obvious that the country needs a quality education system if it is to resolve this issue of misalignment between education and employment.

Higher Education Challenges

That the country’s population is heavily skewed towards the lower-age group implies that Cambodia needs a quality education system that produces qualified graduates to meet the demand of the labor market. To broaden and sustain high economic growth for the eradication of poverty, not to mention to be a competitive force in the region, it is necessary for Cambodia to successfully move from a resource-based growth to one that is based on “capital accumulation and human resources improvement” (Chan & Strange, 2012, p. 44).

Without careful observation, it appears that the Cambodian higher education system is enjoying considerable progress. The number of HEIs in the country increased from 51 in 2005 to 105 in 2014 (MoEYS, 2014). However, such rapid growth in the number of HEI has raised concerns about the quality of education in the country. In addition, the rapidly expanding number of graduates may prove too excessive for the market demand of labor in the country (Chet, 2009). Higher education in Cambodia faces a lot of challenges including access, equity, equality, relevance, academic freedom, research capacities, governance, and management of the system (Chet, 2009; World Bank, 2007).

MoEYS (2011) pointed out that the higher education system in Cambodia faces the following challenges:

- The professors’ capacity at some higher education institutions is still limited;
- There is a lack of focus on research;
- There is an imbalance between the number of professors, facilities and equipment, and the number of students;
- Efforts need to be made to encourage students to enroll in “unpopular majors” (p. 6) and to develop new majors;
- The education system as a whole needs to be decentralized to promote democratic development;
- Most HEIs still lack research facilities and equipment for students.

In addition to the challenges pointed out by the government, the state of the system is “characterized by very disparate organization mechanisms, poor quality output, and low enrolment” (UNDP, 2011, p. 43). UNDP (2011) reported that at present, eleven ministries and agencies are involved in the provision of higher education services (including TVET). MoEYS is, by law, responsible for higher and vocational education; however, the role of the Ministry of Labor and Vocational Training is very vague, which has resulted in a high level of competition and a lack of cooperation between these ministries (UNDP, 2011). Also, the majority of higher education institutions (more than 50%) are located in Phnom Penh. As far as areas of study are concerned, the majority of the students are enrolled in foreign languages, business and management, accounting, and computer science. However, many of those who graduated with

these degrees did not have the skills and practical experience needed for employment in their respective fields (UNDP, 2011). Such failure to integrate graduates into the labor market implies that the system is facing issues of relevance vis-à-vis the skills needed for the market.

There is also a weak partnership between public and private institutions and between companies and those higher education institutions (Chet, 2009). The government still provides funding to public universities to administer academic programs that are already well run at private institutions (Chet, 2009). Rather than being a strategic partner, these public institutions strive to compete with the private sector in those academic programs; as a consequence, both sectors tend to neglect science and other unpopular programs such as chemistry, physics, and mathematics (Chet, 2009).

Another challenge facing the country's higher education system is the issue of autonomy and academic freedom. At present, universities in Cambodia are not allowed to grant degrees without the approval and signature from MoEYS (Chet, 2009). Furthermore, "freedom of teaching and freedom of speech is based on the political system and situation" (Chet, 2009, p. 159) of the country. Problems with access to information, selection of topics for research, and freedom of expression are still causes for concern in Cambodia. Also, appointments – such as appointment of state university presidents and staff appointments – are often made "by the government with or without narrow open application, evaluation of competencies, and input from the institution themselves" (p. 159).

Finally, research is still in its infancy in Cambodia's higher education system. Funding from the government for public HEIs to conduct research is "relatively nonexistent" (Chet, 2009, p. 161). Some public universities are engaged in research activities only through the help of foreign donors and partners, whereas research in private HEIs is "almost completely absent" (Chet, 2009, p. 161). This may result from not only budget issues but also the lack of research-supporting infrastructure including intellectual property infrastructure, research facilities, and laboratories (Chet, 2006). The AEC 2015 recognizes that research is highly crucial to its member countries and aims to foster cooperation and strengthen the research capabilities of each member state (ASEAN Secretariat, 2008). The fact that research in Cambodia's higher education is still in an underdeveloped stage presents a daunting challenge to the country with regard to striving to accomplish this overarching objective and to make use of this collaboration opportunity.

TVET Challenges

TVET in Cambodia is a demand-driven system and is aimed at responding to the needs of the economy. The objectives of TVET are to prepare young people for good jobs, develop the skills of the workforce, and to upgrade their knowledge and skills in relation to technological advances and globalization. The system, however, also faces similar challenges to the higher education system including coordination, quality, and participation (UNDP, 2011). According to UNDP (2011, p. 45), there is "little or no collaboration between the different donors" and the institutions – including international donor agencies, and public and private TVET institutions. The system tends to be "inflexible and non-responsive" (Pich, 2002, p. 6) because there is no coordination with the industries and does not provide opportunities for graduates to take continuing courses to further develop their skills. Furthermore, there seems to be a perception that TVET only serves as a second option for those that cannot attend a university;

therefore, efforts should be made to raise the profile of TVET through improving the quality and relevance of the system (UNDP, 2011). There needs to be a “more effective system regulation, setting of standards, and integration of the formal and non-formal sectors to broaden training opportunities” (ADB, 2009, p. 4).

HRD Challenges in the Private Sector

Although private sector involvement in HRD remains a priority for the government (RGC, 2010), many challenges still persist. Progress in the sector is hindered by institutional fragmentation on the government side, where there is a lack of incentives, support, direction, policy, and infrastructure for human capital development (UNDP, 2011). The private sector will require an “enabling state” (UNDP, 2011, p. 88) that is willing to take initiatives and offer such support. Only when government support systems are in place will the private sector be more willing to engage in human capital development (UNDP, 2011).

A report by HR Inc. (2010, p. 38) stated that currently the government “does not have working group with private sector on labor market needs” in relation to higher education. Instead, the responsibility rests with the universities to make this link between higher education and the labor market. In addition, a “cohesive strategy” (HR Inc., 2010, p. 38) is strongly required to address the labor market needs of the private sector. At present, employers seem to focus more on internal training programs based on the needs of their organization without partnership and support from the government.

Limited Awareness and Engagement in ASEAN and AEC Processes

In order to successfully integrate itself in the AEC 2015, Cambodia needs to ascertain that its businesses, government officials, public and private sectors’ employees, citizens, and other key stakeholders are aware of the opportunities and challenges that AEC presents and fully engaged in the integration processes. However, the level of awareness and engagement in such processes is still low. According to Chan and Strange (2012), interviews with Ministry Commerce officials responsible for the ASEAN integration, selected business leaders, and other related working group suggest that:

...private sector awareness and engagement in ASEAN and AEC processes, and the involvement of other relevant parts of the government, are, at best, very uneven and generally very weak. There is low or uneven knowledge on the implications of the AEC and its potential benefits, no reliable detailed analysis of Cambodian competitiveness by sector compared with other ASEAN economies, or where the most promising AEC benefits and opportunities might be found. p. 48.

Currently, the private sector in Cambodia, except for the garment and tourism sectors, is not “well-networked” (Chan & Strange, 2012, p. 48) and is not informed about or engaged in AEC matters. Yet, there seems to be a strong desire to learn more about this forthcoming ASEAN integration (Chan & Strange, 2012). The garment and tourism sectors of Cambodia are central to the country’s growth and development and could serve as role models for the other sectors, given their “effective national leadership and coordination” (Chan & Strange, 2012, p. 48) as well as engagement with the ASEAN processes.

Technology Infrastructure Challenges

Electronic, communication, and information technologies have transformed our daily lives, work, and society as a whole (Merriam, Caffarella, & Baumgartner, 2007). These advancements, in the forms of telecommuting, information databases, social networking, to name but three, have been designed to make our work more efficient and to increase access to learning for people of all ages and from virtually anywhere in the world (Merriam et al., 2007). However, technology has engendered a paradox in which such information and communication medium have instead provided us with more ways to communicate, increased the demand for information, and increased our workload and level of expectations (Merriam et al., 2007). It may have also contributed to the widening of the gap between “the haves and the have-nots, between the sexes, between young and old, between majority and minority populations, and between rich and poor nations” (Merriam & Brockett, 1997, p. 208).

There is little doubt that the so-called “digital divide” exists in today’s society. Just to give an example as regards Internet usage, of the world’s approximately 7 billion people, only 34.3% are Internet users (Internet World Stats, 2013). In the case of Cambodia, it is estimated that of its 14.9 million people, only about 663,000 (or 4.4% of the population) have access to the internet (Internet World Stats, 2013). These figures suggest that there is still a huge divide in the use of Internet technology between the country and the world.

Researchers, policy makers, and educators are increasingly focusing on how less-developed nations can use information and communication technologies (ICT) to effectively bridge this digital divide (Richardson, 2008). ICT plays a crucial role in education reform and human resource development efforts (Richardson, 2008). In attempting to better utilize ICT in these reform efforts, the Cambodia government, through MoEYS, adopted an *ICT in education* policy, aimed at increasing access to basic education for all students through the use of ICT, improving the quality of education, and creating a workforce that is capable of participating in the global knowledge-based economy (Richardson, 2008).

ASEAN recognizes that ICT is critical and has launched efforts to facilitate “interconnectivity and technical interoperability” (ASEAN Secretariat, 2008, p. 21) among its members’ ICT systems and transforming existing national networks into a regional information infrastructure. ASEAN also acknowledges the importance of the participation of all key stakeholders – ASEAN member countries’ people, communities, enterprises, administrations – in the utilization and development of the regional information infrastructure.

Cambodia faces many ICT challenges with regard to the ASEAN integration. For instance, a study by Richardson (2008), aimed at comparing the Cambodian government’s ICT policy and its current state, found that there is little or no evidence of the establishment of formal and non-formal opportunities to improve ICT skills of the key stakeholders (government officials, teachers, and trainers), promotion of ICT-based research activities, or promotion of the use of community information centers. Although there is proof that teacher training colleges have been equipped with ICT hardware and infrastructure (under a UNESCO project), there does not exist a cyber campus consortium that links virtual campuses between Cambodia and other countries. In addition, there has been minimal effort to improve ICT skills needed for the knowledge economy, to promote ICT content and development in the Khmer (Cambodian) language, or to promote open distance education for students in the rural areas. There is a lack

of Internet connectivity in schools and training of government and school personnel in ICT maintenance and repairs. Finally, there is not enough evidence to suggest that there has been an increase in ICT stakeholders' satisfaction through such means as providing opportunities for vocational training and essential resources, establishing partnerships between schools and other public and private entities, and providing students with a choice of "what, when, and where they want to learn" (Richardson, 2008, p. 80). As a result, Cambodia needs to find solutions to these ICT challenges if it is to successfully integrate itself in the ASEAN community and be competitive in the region.

Conclusion and Implications for Practice and Research

This paper aimed at examining the HRD opportunities and challenges facing Cambodia as the country prepares to be part of the AEC 2015. Given the scarcity of research pertaining to NHRD in Cambodia, it is conceivable that this paper is mostly reliant upon information from government ministries, non-governmental organizations, and other international bodies. In a similar vein, the dearth of literature associated with HRD within the country's business sector means that the discussion of this particular subject matter was limited. Nevertheless, we hope that this paper can help spur interest in the topic and serve as an impetus for strengthening HRD research and practice within the context of Cambodia and the ASEAN region.

To integrate itself in the AEC 2015, Cambodia needs to address many HRD challenges, including mismatches between education and employment, problems with the higher education and TVET system, lack of awareness and engagement in ASEAN and AEC processes, and technology infrastructure challenges. First, higher education is considered the dominant HRD practice in Cambodia; therefore, it is in the country's interest to address issues associated with the system, including quality issues, low enrollment rate, lack of partnership between private and public institutions, autonomy, academic freedom, and mismatches between the demand of the labor force and supply of university graduates. Second, efforts should be made to eliminate the stigmatization associated with TVET as well as to strengthen coordination and collaboration between public and private TVET institutions, international donor agencies, and the government. Similarly, there needs to be a more enhanced HRD partnership between the government and private entities to ascertain that cohesive initiatives and strategies are in place to address the labor market needs. Equally important is the need to raise the awareness and engagement in the ASEAN and AEC processes of key stakeholders – government officials, public and private sectors' employees, university graduates, and other citizens. Finally, given the important role of ICT in the integration process, as acknowledged by ASEAN, Cambodia needs to provide opportunities for key stakeholders to improve their ICT skills, increase access to Internet connectivity, and promote ICT-based research and development.

At present, research, especially on HRD in Cambodia's private sector, is very limited. Future studies could look at the country's HRD progress, issues, practices, and policies. In particular, more research is needed on the linkages between private and private sectors, government policies towards the private sector, specific cases of HRD in private organizations, HRD in foreign companies operating in Cambodia, and more. In addition, as the integration unfolds, research could also examine the level of awareness and engagement of key Cambodian stakeholders in the AEC.

Future research could also focus on examining NHRD and international HRD issues within regional contexts such as ASEAN. More studies are definitely needed to help understand NHRD challenges facing countries already part of a regional community or planning to integrate into one. Research could also explore possible solutions to address the gap between developed countries and their less developed counterparts as well as what possible HRD initiatives could be put in place in order for integration plans to succeed and move forward. Finally, potential studies – for instance, in the form of specific country cases – that examine NHRD models in the context of developing countries would make a good contribution to the current literature base.

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