Abstract

Rapid expansion of education in Bhutan can lead to a discrepancy between the output of graduates in different specializations and the capacity of the Labour Market to absorb them, leading to unemployment and under-employment of certain graduates. By surveying college students of various specializations, employees and employers we attempt to identify the attitudes, motivation and the changing needs of the employment market in order to identify inconsistencies between education and the labour market.

The paper examines the question of the changing relationship between education, employment and the labour market and how employability is possible in the new ‘knowledge-driven’ economy.

Our research objectives are to: 1) extend the studies of graduate unemployment to the situation in Bhutan and compare it with other developing and developed nations, 2) to determine the attitudes and motivations of college students toward higher education and employment, and 3) to determine needs of the employment market in the new economy.

Analyzing the data allows us to look at ways in which emphasis may be shifted in the higher education system away from simple participation rates towards a more diversified education to meet future workforce needs and skills. Our study looks at best practices in this area, found in other developing and developed countries and examines Labour Force Surveys published by the Ministries in Bhutan. The resulting indicators can be used by policy makers in educational planning, to be oriented towards the employment needs of Bhutan.

Key words: employment, higher education, young adults, college students, job market, job skills, training, unemployment, counseling, graduate aspirations, graduate employability.
INTRODUCTION

Rapid expansion of higher education in many developing and developed countries had resulted in unemployment problems among the educated youth. At first countries increased their gross enrollment ratio in tertiary institutions in order to expand their economy and achieve a highly educated workforce. Higher education was the domain of the wealthy at one point, when access to Universities was limited and the cost was prohibitive. However, all this changed by the 1950’s in most of the industrialized nations of Europe, North America and Australia.

As nations shifted from agriculture dominated economy, most jobs in business, finance and industry required a degree from a University or a diploma from a vocational school. Thus it was necessary to expand the tertiary education system, to admit more students in both government and private institutions. Students realized that a degree or diploma led to better jobs and higher salaries. This led to large numbers of graduates entering the job market with high expectations. Eventually unemployment and under-employment issues arose, especially during recessionary times. It is important to balance the job expectations of college graduates with the capacity of the labour market, the required skills and employer expectations. Youth unemployment has become a global problem; this rate has continually increased, especially among first-time job seekers.

An evaluation of the social causes of unemployment requires analysis in terms of labor force and labor force participation rates as determined by industrial restructuring and the supply and demand of human capital. Governmental and Non-Governmental strategies are employed in most countries to improve human capital development among college graduates that face unemployment.

Using our survey data, we attempt to identify the attitudes, motivation and the changing needs of the employment market in order to identify inconsistencies between education and the labour market. In this study we examine the question of the changing relationship between education, employment and the labour market, what are best practices here and elsewhere and how employability is possible in the new ‘knowledge-driven’ economy.
LITERATURE REVIEW

In 1973 Martin Trow defined Mass Higher Education, as when over 15% of the age grades have access to higher education (Trow, 1973). Transition from elite to Mass Higher Education took place in developed nations during the middle of the 20th century. This goal was also recognized by the central government of China and they aimed to reach it in a 10 year plan instituted in 2000. This goal was actually reached by 2002, (Bai, 2006) and exceeded by 2004.

A review of participation rates in OECD countries reveals an average 50% participation rates in Higher Education, with some Eastern European countries (Poland, Slovakia) reaching as high as 60% rate in the 18-25 age group. Such a high rate also implies that these nations have an overall 50% of the population 25-65 age group with Higher Education and a literacy rate of nearly 100%. Another interesting finding in these surveys is that in 21 of the OECD countries women outnumber the men in numbers graduated from tertiary educational institutions (OECD, 2011).

This leads us to several observations:

1. College education increases the value of human capital and leads to productivity gains, private entrepreneurship and economic development. Tertiary education serves as an indicator of the capacity at which countries produce advanced knowledge. Countries with high graduation rates at tertiary level are also those most likely to be developing or maintaining a highly skilled labour force.

2. Tertiary education of 3-5 years delays the entry of the 18-25 age group into the job market, hence temporarily reduces the pressure on job seekers.

3. The large percentage of young women enrolled in Universities also reduces the birth rate in developed countries, further reducing pressures on the future job market, as the population growth is stabilized at a lower rate.

4. When a large numbers of graduates enter the job market with high expectations, it can lead to temporary unemployment issues, especially during a recession. In the United States the unemployment rate for college graduates younger than 25 jumped to an average of 9 percent between April 2009 and March 2010, compared with a 5.4 percent average in 2007. That rate doesn't account for graduates who are employed part-time or at jobs beneath their skill levels (Quillen, 2010).
5. It has been shown that Higher Education does lead to better jobs and higher earnings in the long run. “On average, college graduates do very well in terms of employment and earnings relative to others in the labor force” (Shelley, 1996). This is a large factor motivating young people to enroll in tertiary education, and is especially true in underdeveloped nations or those formerly under communist rule where people had little chance of improving their status without higher education.

Countries such as China, India, Poland or Russia are not always able to absorb the highly skilled and educated into their own job market; however, they are now able to export this talent to the global job market. Some developed countries face a shortage of certain skilled workers and find it more economical to import such skills from outside. This export of human capital has become another important source of income contributing to an increased wealth for developing nations (see for example the IT centers of India and Russia and the export of software development and consulting work by these nations to the global market at competitive prices).

Demand and supply of labor over the next 2 decades will have a huge impact on the global economy. Based on current trends, there will be large gaps in the labor supply needed to drive the new knowledge-based economies, while workers with limited skills will be in surplus (McKinsey Global Institute, 2012). The global labor market of 3.5 billion workers is projected to have a potential shortage of over 38 million college-educated people in 2020, according to the study by McKinsey Global Institute. Avoiding these imbalances (in both developing and advanced economies) will require an unprecedented commitment to education and training.

**Implication of these findings for Bhutan**

These findings are highly relevant to the Kingdom of Bhutan where the Higher Education participation rate for 2011 was calculated to be close to 15%. This is lower than the lowest rates (40% in OECD) found in developed countries and also below the 20% rate for China or approximate 20% rate for Turkey and Mexico (OECD, 2011) and 18% rate for India (Goswami, 2012). However, the rise in Gross Enrollment Ratio in India does not necessarily mean an increase in education quality or the supply of skilled personnel, academics and policy-makers have warned. While the Gross Enrollment Ratio of Singapore is just 23%, it is one of the most advanced economies in the world (Mishra, 2012). South Korea, Canada and Japan are the top
three countries with the largest share of adults ages 25 to 34 holding college degrees (OECD, 2011). Statistics show that only 3.5% of the working population in Bhutan is college educated (Pelden, 2012a) and (NSB, 2011).

This disparity in Bhutan, coupled with the large percentage of illiteracy rate (over 200 thousand people, or 25% of the population, mainly in agriculture) leads us to conclude that Higher Education has a long way to go towards developing a strong and well-educated nation. Quality Higher Education is a goal stated by the Honorable Minister of Education in an address at Gaeddu College of Business Studies in May 2012. His Excellency stressed the importance of education, not just for employability (“Universities are not just degree factories, producing employable graduates”), but for the sake of knowledge, as well as life and business skills. The continuing importance of Higher Education has also been stated by His Majesty the 5th Druk Gyalpo and the Royal Government of Bhutan in the current 5 Year Plan.

Our Contribution – Scholarly and Practical

Our paper seeks to examine the following:

1) What skills Bhutanese college graduates have or lack and how they relate to their jobs and to employer expectations?

2) What are the attitudes and motivations of college students and graduates in Bhutan toward higher education and employment?

3) Examine the various factors that contribute to graduate unemployment, and what solutions can be offered.

4) Examine job satisfaction of employed graduates, their preparedness for the job market by colleges and their motivations for further development and business skills.
METHODOLOGY

We used convenience, or opportunity sampling, to survey 414 students (last year of their program) from tertiary institutes in Bhutan to participate in our study (the sampling was done to include close to 15% of the students in final year classes in each area of study). We also surveyed 207 employees throughout Bhutan who are recent graduates (2009-2011) from colleges and vocational schools in the nation. Our questionnaire had 16 items and took less than 5 minutes to complete. We asked respondents about their college background, motivation for higher education, the quality of education received, job search methods, salary expectations, most important factors in their jobs and industry of employment.

Finally, we asked 23 employers to fill out a survey on hiring practices, employee skills and educated workforce needs. Secondary data relating to population demographics, comparative data with other nations and workforce statistics were collected from Statistics Yearbooks, published papers and government websites such as Ministry of Labour and Human Resources and Royal Civil Service Commission.

Data was coded and entered into SPPS for analysis. SPSS software was used for descriptive statistics and summary graphs. The summary tables obtained were compared with similar surveys conducted in China, Philippines and with European data.

Limitations of this study include a number of factors. Some 4000 Bhutanese students enrolled in colleges abroad were excluded from this study, as it would be nearly impossible to locate most of them for a survey. We have no idea about the fields of study these students pursue abroad. We sampled only final year students in Bhutan, but it was not a true random sample, although we attempted a stratified approach while sampling the various colleges. We had difficulties contacting recent graduates, thus our sample includes too few in the education field and too many in engineering. To overcome some of these limitations, we chose several randomized samples in SPSS to arrive at our results and examined the significance of the summary statistics. Randomized subsamples did not significantly impact the results and the conclusions shown are still valid.
DISCUSSION

Our data on final year students include approximately 63% males and 37% females with a median age of 23, obtained proportionately from all Royal University of Bhutan colleges, Royal Thimphu College and Jigme Namgyel Polytechnic institute.

The student respondents studied in all fields of study offered in Bhutan with:
18% Finance and Accounting, Economics
17% Education
21% Science, IT and Engineering
10% Vocational diplomas
10% Health/Nursing
10% Languages, Art

Smaller numbers are enrolled in Geography, Agriculture, Human Resources, Marketing and Tourism. The distribution of students by field of study is quite similar to that found in a study of countries such as the Philippines (Johanson, 1999). Gender %-ages are according to RUB enrollment date for 2010 (RUB, 2011).

Academic performance of these students fell into the 60-80% average mark at least 86% of the time. Do students feel well prepared for employment? Respondents tended to find college infrastructure facilities (libraries, IT, etc) inadequate 15-18% of the time, while only 10-15% found them excellent, depending on their field of study. In our study, we found that 32-44% of graduates find field trips and entrepreneurship training inadequate, and 21% found counseling inadequate. Soft skills, course content and instructional methods were judged to be good to excellent by (>90%) grads. Students and graduates in our study were quite clear on the fact that they wanted to use their skills and talents in their jobs, while salaries are of importance but location of employment was mostly unimportant.

At the UNESCO Conference in Bangkok in 2006, participants identified several issues related to graduate unemployment (UNESCO, 2007), such as: access to internship, good career counseling and the need for soft skills. So how do students and graduates in Bhutan feel about the adequacy of their exposure to these skills?

Tables 1 and 2 summarize the perception on preparation for the job market at College by all 616 respondents (1 = inadequate, 2 = adequate, 3 = very good, 4 = excellent).
Table 1. Quality of college preparation for the job market

<table>
<thead>
<tr>
<th></th>
<th>Content</th>
<th>Instructional method</th>
<th>Soft skills</th>
<th>Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (Strd. Dev)</td>
<td>2.82 (1.28)</td>
<td>2.55 (.72)</td>
<td>2.46 (.75)</td>
<td>2.42 (.92)</td>
</tr>
</tbody>
</table>

Table 2. Quality of college preparation for the job market

<table>
<thead>
<tr>
<th></th>
<th>Counseling</th>
<th>Internship</th>
<th>Entrepreneurship</th>
<th>Field trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (Strd. Dev)</td>
<td>2.15 (.83)</td>
<td>2.12 (.95)</td>
<td>1.99 (.8)</td>
<td>1.83 (.92)</td>
</tr>
</tbody>
</table>

Students were asked about their salary expectations. About 53% of them expect their first job to pay under Nu. 15,000/month. Our survey of employers reports a starting salary range of up to Nu. 20,000/month. And graduates who are employed report salaries of higher than Nu. 15,000/month 70% of the time. These findings, along with responses on the importance of various factors in a job indicate that salaries expected by college students are not of the highest importance.

<table>
<thead>
<tr>
<th>Salary range (1000 Nultrum/month)</th>
<th>Students</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>12%</td>
<td>4%</td>
</tr>
<tr>
<td>10-15</td>
<td>41%</td>
<td>25%</td>
</tr>
<tr>
<td>15-20</td>
<td>32%</td>
<td>41%</td>
</tr>
<tr>
<td>20-25</td>
<td>10%</td>
<td>14%</td>
</tr>
<tr>
<td>&gt;25</td>
<td>5%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Table 3. Salary Expectations vs. Actual salaries

We found the highest salaries in Engineering, lowest salaries in Languages and middle range salaries in Finance/Accounting.
Over 95% of graduates find working conditions, training, security and advancement most important factors in their jobs, while location of workplace was found to be less important by graduates. Employees and college students also valued: research, international work, helping others, entrepreneurship and good colleagues at work.

<table>
<thead>
<tr>
<th></th>
<th>Training opportunity</th>
<th>Career advancement</th>
<th>Secure future</th>
<th>Use my talents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (Std. Dev)</td>
<td>2.71 (.49)</td>
<td>2.70 (.48)</td>
<td>2.69 (.52)</td>
<td>2.57 (.55)</td>
</tr>
</tbody>
</table>

Table 4. Most important factors in a job
(1 = not important, 2 = important, 3= very important)

<table>
<thead>
<tr>
<th></th>
<th>Salary</th>
<th>Travel opportunities</th>
<th>Vacation time</th>
<th>Location near home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (Std. Dev)</td>
<td>2.22 (.63)</td>
<td>2.19 (.65)</td>
<td>2.04 (.64)</td>
<td>1.61 (.7)</td>
</tr>
</tbody>
</table>

Table 5. Other factors in a job

We asked final year students about their motivation for pursuing tertiary education. The results are shown in Table 6.

<table>
<thead>
<tr>
<th>Motivations</th>
<th>Numbers</th>
<th>Percent</th>
<th>% for Chinese students in 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>For better job opportunities</td>
<td>238</td>
<td>58.9%</td>
<td>56.28%</td>
</tr>
<tr>
<td>For self improvement</td>
<td>122</td>
<td>30.2%</td>
<td>30.69%</td>
</tr>
<tr>
<td>Just following trends</td>
<td>11</td>
<td>2.7%</td>
<td>2.23%</td>
</tr>
<tr>
<td>For research interests</td>
<td>20</td>
<td>5.0%</td>
<td>8%</td>
</tr>
<tr>
<td>Others influence</td>
<td>13</td>
<td>3.2%</td>
<td>2.74%</td>
</tr>
</tbody>
</table>

Table 6. Motivation for tertiary studies, 2012

These numbers indicate that better job opportunities are the most important factor for higher education. A survey of over 10,000 students in China in 2003 showed a remarkably similar result.
Only 5% report an interest in research as a primary motivating factor for continued education.

Expected and actual job search: we found that 82% of students expect to find a job within 6 months, but only 76% of graduates who are employed found a job in less than 6 months, while 92% of them found a job within 12 months.

It is difficult to estimate the unemployment rate among new college graduates, as secondary data has no specific numbers for 24-29 age group with degrees; data from the USA shows an average of 9% unemployment for this group in recent years and unemployment rates for the college educated youth were 10-16% in China in 2004. Considering media reports in Bhutan, of over 2600 people looking for positions in 2012, with only 2200 job and training opportunities available (Choden, 2012); we might have 400 unemployed graduates at this point or about 15%. But with rapid development of Hydro projects and other new businesses, as well as opportunities abroad, it should not be too difficult to absorb those 400 people into the workforce.

According to MOLHR (2012), demand for workers at hydroelectric power projects will be at least 4958 skilled Engineers, Admin / Finance/Accounts and other employees. The demand will peak by 2016. It may be difficult to meet this demand at current rates of graduation from within Bhutan.

Table 7 does not show any obvious disparities between areas of study (RUB, 2011) and the current job market. These percentages are approximate, as it is difficult to interpret and place some of the job vacancies announced by MOLHR (2012) into the correct category. It implies that graduates with general degrees or any of the specializations can be absorbed by employers in Bhutan and India. There are also training opportunities to start self-employment, in addition to the areas shown above.
Field of study | 2012 College graduates (approx.) | Respondents studied (614) | Jobs+training vacancies
---|---|---|---
Business/Finance/Accounts | 20% | 25% | 20%
Education | 24% | 17% | 20%
Engineering / IT | 16% | 15% | 22%
General / Arts / Media | 20% | 15% | 22%
Agriculture | 4% | 7% | 3%
Health / Nursing | 4% | 8% | 2%
Vocational diplomas | 12% | 7% | 11%

Table 7. Areas of study versus job vacancies

MOLHR Labour Market Survey also includes some job opportunities abroad.
- 15 teachers are selected to teach in Thailand
- 450 general degree graduates are being interviewed for a variety of employment in India
This is an encouraging step in the right direction, giving college graduates an opportunity to work abroad, get international exposure, travel and increase their skills and training opportunities this way.

A draft of a study by the education ministry in Bhutan shows that the perception of a government job and self-employment has not changed among the youth, both in and out of
school, with over 87 percent of them preferring government employment (Pelden, 2012b). Self-emp
trepreneurship are not seen by most youth as secure ways to advance their future. It was found that social and cultural factors discourage youth to opt for self-employment, mainly because government employment is seen to have higher social status (Pelden, 2012b).

In our study, respondents replied with their perception of several reasons responsible for unemployment: Inadequate experience (30%), no jobs in their field (21%), low salaries (12%) and qualifications not good enough (9%) or other reasons such as family situation.

At the UNESCO Conference in Bangkok in 2006, participants identified several issues related to graduate unemployment (UNESCO, 2007).

   a. Mismatch of qualifications with employers’ needs
   b. Lack of supply and demand information on labour market
   c. Lack of proper career guidance and information
   d. Lack of exposure of students to the real world of work
   e. Lack of soft skills
   f. Economic issues

The Conference participants recommended some key steps to deal with these issues.

   a. Conduct needs assessment of employers and businesses. Provide opportunities for teachers and trainers to be familiar with knowledge and skills needed by the industries. Review and revise curricula to match needs, incorporating competency-based core subjects and soft skills.
   b. Convince stakeholders to give due attention to up-to-date labour market information. Develop common criteria for collecting of information.
   c. Provide relevant information to target groups. Share information through various channels and establish web-based career guidance portals. Encourage governments and employers to plan events to develop career awareness. Develop strategies to coordinate cooperation between governmental agencies, industries and educational institutions. Provide training for career counselors.
d. Facilitate exposure of students to the workplace through mentoring, counseling. Organize campaigns and forums to increase students’ awareness and exposure.

e. Develop more extra-curricular activities and encourage students’ participation while enrolled as students or trainees. Strengthen linkages between academia and industry. Create internships at the workplace. Encourage and facilitate student mobility and exchange across borders

Various rates of economic growth in each region have contributed to some imbalances between supply and demand in human resources. The push for a knowledge-based society has seen an increase in the number of tertiary educational institutions and university graduates. Globalization has further opened the door to opportunities and challenges for trade and labour market. There is still a great reliance on imported skills in Bhutan. As we gradually increase the well-educated, skilled local labour force, then these positions in the labour market will be filled increasingly by qualified nationals.

Best practices for business skills development can be found in various developed countries, where the supply of tertiary graduates is abundant, but there is a need to develop business skills relevant to the marketplace. For example the Government of Canada issued a directive in 2011: “The future prosperity of each region depends on ensuring that people have the skills and opportunities to contribute, innovate and succeed. The Canadian government is committed to expanding opportunities for entrepreneurs so they can add to or improve their business skills, enhance their abilities, and prosper in today’s changing economy.” The Government supported nearly 450 business skills projects in 2011 in each region of the country (ACOA, 2011). Training programs and the use of tax incentives are widely used strategies by governments to improve the employability of educated youth.

In Bhutan an Entrepreneurship Promotion Program has been initiated by the Entrepreneurship Promotion Division under the Department of Employment. A Comprehensive Entrepreneurship Course focuses on offering courses for aspiring youths who would like to venture into the business world. This program currently offers 50 vacancies per quarter for its 40 day training program, followed by eligibility for a loan of up to Nu. 1 Million to start a new business venture (MOLHR, 2012).
Our findings from interviews and survey responses confirm the findings by the Labour
Market Guide; Bhutanese employers place a high importance on soft skills, such as: Positive
work ethics, good attitude, desire to learn and be trained and consistent hard work (MOLHR,
2012). Tertiary institutes must strive to educate students in these vital areas.

Planning is the Key: it is becoming increasingly important that students understand the
necessity of careful career planning when making decisions about college. Those who familiarize
themselves with the kind of jobs open to college graduates, projections of growth in occupations
employing graduates, and the relative ease or difficulty of entry into various occupations are less
likely to be taken by surprise during their post graduation job search (Shelley, 1996).

A commitment to quality education is essential in Bhutan not only in order to serve the
needs of the nation, but to also compete in the global marketplace with skills that can be easily
exported to the advanced economies of the world. In conclusion, we see a bright future for our
educated youth, as we prepare for the next 100 years of modern education, with an emphasis on
quality Higher Education in Bhutan.
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REFERENCES


