



A PILOT STUDY ON EVALUATION GAP BETWEEN COMPETENCIES ACQUIRED BY GRADUATES AND REQUIREMENTS OF INFORMATION TECHNOLOGY (IT) COMPANIES.

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ABSTRACT

A long debated study over the years have proven that employment is one of the major areas of concern and in today's time, graduates who are competent and highly skilled alone would be able to compete and acquire jobs by maintaining relevant skills by being abreast on the latest trends within the industry.

Various organizations and communities perceive skills development on a holistic view as strategic and fundamental, and consequently have considered investing in skills which is of utmost priority. In order to realize the potential of skills enhancement and development, they face common challenges. Student professional development constantly attempts to address and highlight the gap between academic experiences and employer's expectations. This study focuses on student's professional development within an academic environment. Job demand and trends, and applicable curriculum were explored to support this research. The main objective of this study is to ensure that skills taught at school and colleges are applicable and relevant for the work environment; that are maintained and further supported during working life; and that they are recognized and used by employers once people join the labour market.

KEYWORDS : Potential, Model Curriculum, Labour Market, Knowledge-Based Economy, Changing Trends, Gaps, Resources, Challenges, Opportunities & Solutions

INTRODUCTION

Various organizations and communities perceive skills development on a holistic view as strategic and fundamental, and consequently have considered investing in skills which is of utmost priority. In order to realize the calibre of skills enhancement and development, they face common challenges. Student professional development constantly attempts to address and highlight the gap between academic experiences and employer's expectations. Higher education in information technology (IT) heavily relies on various successful model curriculums that lead in generating potential candidates. These curricula help academic programs not only in determining and finalising which courses are highly essential, along with focussing on the learning outcomes that define the skills and talent of students that they should acquire when they graduate from the program. One of the toughest challenges that IT higher education is facing today is recognizing changing trends in the industry, which would enable them to adapt their course offerings to meet the needs and expectations of the job opportunities in various fields. Due to these challenges among others the underlying question is should the concentration be developed on Computer Information Technology curriculum (CIT) which is the need of the hour on certain applicable situations.

SCOPE OF THE STUDY

Computer Information Technology curriculum has gained rapid importance at various universities as some changes and modifications have been identified and accommodated so that graduate and undergraduate students can have the required knowledge and skills for a fruitful career in the global market with respect to emerging business disciplines and changing trends. After an initial overview and analysis of the available resources, a decision was made to concentrate on a few select data sources. The IT 2008 Curriculum Guidelines for Undergraduate Programs in Information Technology, the IS 2010 Curriculum Guidelines for Undergraduate Programs in Information Systems, and finally the CIT course catalogue containing course descriptions and learning objectives for all offered courses that promises a rewarding career for all graduates.

THEORETICAL BACKGROUND OF THE STUDY

An individual's qualification and expertise has become increasingly

vital, as it poses a question on its marketability factor for job candidates, due to the current position of the job market and unemployment factors.

Lombardi (2012) discussing the challenges stated that "There seems to be an increasing demand of Talent across various organizations" While demand has grown for this talent, the Available supply of potential, qualified and liable candidates hasn't increased at the same rate which is a bleeding issue" (para. 2 & 4). This is especially critical when considering the nature of the IT related disciplines. The rapid evolution of technology and technical changes over the years, ultimately has pressing demands of more and more from current practitioners, and will demand and expect the same of future practitioners as well. One of the primary challenges for academia, within the realm of IT industry, is to update its course offerings with respect to the expectations of companies and their recruiters. Traditional, outdated and Lagging course offerings presents a significant issue to students pursuing a degree in the fast-paced technology field (Bullen et al., 2009, p. 136). It is important to establish a strong curriculum that can not only recognize trends in the industry but also enable the learning curve of graduates so that can be better positioned to enter the market.

LITERATURE OF REVIEW

The various literature reviews collected over the years highlights the fact that a strong academic foundation influences the functioning of an able bodied society. Over the years many studies have revealed the fact that many colleges and universities, have primarily focused on providing professional training for students with the intention that many graduates who have understood the value of education, hold a better chance of occupying a certain grade in an organization which is imperative in today's era. The literature defines "Professional Training" as a continuous learning process during which participants learn theoretical and practical knowledge and with its implementation, can develop the skills acquired that could be measured, and the outcome of the results lead in the development of an effective society. In Knowledge-Based Economy (Paris, 1996) defines the knowledge-based economy as "The economy based directly on the Production, Distribution and use of Knowledge and Information" Ian Brinkley (2006) defines knowledge-based economy as a scenario where the companies

provide a favourable and a warm climate for well-educated staff and the high technology in order to create wealth.

According to the study of the organization for economic cooperation and development, the effective participation in the knowledge-based economy requires the following competencies (OECD, 2001): Interpersonal skills, (team work co-ordination skills,) intra-personal skills (motivating attitude, learning ability, problem-solving ability, communication skills, analytical and technology skills). (Arnold and Mackenzie, 1992, Stevens and Campion, 1994 Bills, 1998 and Leveson, 2006) have stated that besides technical skills, graduates need to develop certain personal skills that will contribute for success in their professional careers. Miller (2000) or Elliott and Jacobson (2002) suggest that students must have a multidisciplinary curriculum and approach that will give them the chance to be engaged in processes of learning and to develop critical and farfetched thinking. However, the higher education system should not only focus on the development of specific skills forming of graduates' ability to formulate their own new skills and knowledge throughout life. (Duke, 2000). The most important outcomes of learning process should be the enhancement of skills in communication and teamwork (Gabric and McFadden, 2001). The results are employers are constantly seeking graduates who have well developed skills in communication, teamwork, critical thinking and problem solving (AC Nielson Research Services, 2000)

OBJECTIVES OF THE STUDY

- (i) The primary objective of this study is to identify the gap between employers' perception and job seekers' perception.
- (ii) To study the relationship between factors determining employability and the profile of the job seekers.

STATEMENT OF THE PROBLEM

There has been a mounting rise in structural unemployment, and due to some skills mismatch resulting from the economic depression and floating crisis, requires immediate attention, for a long-term comprehensive strategy. Due to the prolonged and unpredictable recession, and other impending challenges stemmed up, many unemployed people are facing an acute shortage with job opportunities and are more likely to accept employment that is not well matched to their skills. This study also highlights the various factors behind unemployment that causes a gap for graduates seeking employment opportunities with various firms and its mismatch.

- Skills mismatch has become a glaring issue in the global economic crisis.
- Many employers face difficulty in finding suitable and right applicants for the jobs offered by the company at various levels.
- Another worrying occurrence is qualification mismatch affecting many firms. Difficulties employers face in finding the right talent and imbalances created between skill demand and skill supply in the knowledge based economy.
- Qualification mismatch and underutilization of skills.

In order to overcome these various barriers and daunting issues pertaining to graduates skill gaps a better management of skills and resources can lead to economic benefits, in benefitting 'well-being of workers. Reducing the gap calls for better hiring practices and policies, job design and training provisions, in coordination with actions to improve the quality of education in partnership with governments, employers and organizations. In addition, on job role and continuous training at work are necessary for employees to constantly adapt and meet impending job demands.

RESEARCH METHODOLOGY

As per the study conducted in 1993, Kim, Ghosh and Meng stated that the most important aspect for selection by employers for graduates is: the graduates being driven internally to seek jobs and opportunities that requires self-acquired qualities and communication skills. Instead graduates often consider that employers are

more interested in the expertise acquired. A similar analysis of the study revealed that both students and employers have prioritised verbal communication, understanding ability and problem solving skills, where in perceptions about the importance of other skills were a bit undermined. (Leveson, 2000). Results of prior research state that both employers and students hold the same opinion about the skills needed for success in a business career. Hence, both analytical and communication skills are given utmost priority, that would leverage the assigned positions as per the interview for both employer and students. (Kavanagh and Drennan 2008). As per the study in Romania and as per the National Qualifications Framework for Higher Education created by Ministry of Education Research and Innovation order No 4430/2009 ensures that the international compatibility of qualifications acquired in the higher education system is based on objectives by the strategy Lisbon and Bologna process the graduates skills falls in two categories:

- **Professional Skills:** It is known as the application of Knowledge, Values, Beliefs, and Assertiveness in solving a particular situation that requires good problem solving skills, constructive thinking and reflection of creativity and innovation.
- **Transversal Skills:** It represents team building, oral and written skills, technical, critical thinking, problem solving, decision making, diversity and entrepreneurship.

As per these study employers consider various factors in the selection and recruitment of graduates, the esteemed universities from where graduates have passed out and the universities reputation, the ability of the candidate to "Sell" himself/herself during an interview. Hence, the main issue that various employers face in the corporate world is graduates who have poorly obtained knowledge and the lack of will to succeed in the long run turns out to be disappointing. On the other hand employers appreciate qualities in candidates that are most desirable such as being computer literate, knowledge of foreign languages, ability to work in a team. (Vasiliu, 2009). Various sources have stated that the perceptions of graduates and employers regarding the skill gap still exists, by the lack of employers' interest of graduates acquiring lifelong learning skills, even if, as Vasile, Prelipcean and Sandru (2009) highlighted, in the context of Knowledge-Based Economy, the knowledge and skills learned or obtained by the students is relatively short.

In order to measure competence and skills that students consider that they have acquired over the years of study, Likert scaling technique is used. The sample was acquired by using proportional stratified random sampling. Data was collected from a sample of few companies in IT.

ANALYSIS

Regarding the perceptions and the types of skills and abilities acquired by students and employers reveal some differences. Students believe that during their graduation they have acquired key skills such as Communication Skills (90%) Technical Skills (80%) Economic Culture (75%) Team work (50%) and General Awareness (5%). The below table highlights the data that is drawn from the internal references that an organization uses while hiring candidates for a suitable job, as this is a part of the written assessment round that highlights few abilities and qualities of candidates that is in demand today.

Table 1

Interview parameters for gauging applicants	Applicant's Scores
Communication Skills	95.00%
Technical Skills	90.00%
Economic Culture	75.00%
Team Work	50.00%
General Awareness	5.00%

The below primary data is drawn with the help of a random

sampling technique that is applied with a small group of individuals in the age category of 20-28 years as this population of data is with reference to the applicants applying, for jobs where the ratio of men and women is equivalently distributed (20:20) as per the parameters mentioned below most applicants felt that they had a strong foothold with respect to communication skills and they are technically sound on a scale range of 90-95% out of 100%.

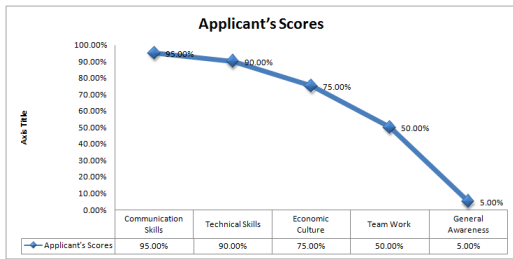
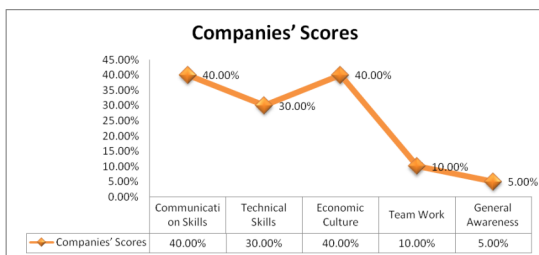


Table 2

Interview parameters for gauging applicants	Companies' Scores
Communication Skills	40.00%
Technical Skills	30.00%
Economic Culture	40.00%
Team Work	10.00%
General Awareness	5.00%

This primary data is drawn with respect to applicants that had applied for jobs at various levels within the organisation, and as per the trend analysis the major drawback was with respect to communication skills where the percentage drawn was only 40% and technical scores being only 30% on a scale of 1-100, as this random sample of data has proved that most applicants believe that they are good i.e. communication and technical skills but as per the company expectations they are not able to meet the expectations accordingly.



Inferences: It is interesting to know that employers have a better perception than students about their knowledge acquired in their field. The difference in perception between the students and the employer is related to communication, technical and team building skills which plays a very important role. As students are not aware of the modern learning approach with respect to (Simulations & Role Play) and the fact that the teaching process doesn't focus on spontaneous thinking ability, creative thinking, presentations that would help in creative and analytical thinking along with the improvement in communication skills. In terms of assessing the relationship between theoretical knowledge and practical application studies have revealed that there is no relevant difference between the perception of students and employers. Studies have revealed that there is no actual relevance between practical and theoretical knowledge acquired by students during their years of study. This can be explained by the results concerning theoretical and practical knowledge acquired by students. Research has also proven that most students were able to do extremely well, not only academically, but also in cracking high end technical interview in the Information Technology industry as these students have been not only persistent in learning and acquiring knowledge, but also in participating in various extracurricular activities conducted during college days when compared to students who hadn't participated in such events, by doing so they increased their

social awareness and their sense of responsibility towards themselves and the society at large increased gradually. Research has also revealed that students are hesitant to participate in activities on their own, and there could be a possibility that most faculties is not encouraging such events sufficiently and the benefits of participation in such activities in turn helps students to develop team building skills, communication skills analytical thinking and practical skills.

FINDINGS

1. Skills are key assets for individuals, business and societies in a dynamic and sophisticated world.
2. Matching skills and jobs has become of great importance today. Skills mismatches occur when employees either have fewer or more skills than jobs required.
3. Many employers face a huge challenge in finding and placing the right candidate for the right job within a given organization.
4. Over the years qualification mismatch also seems to be the problem in most organizations, if the qualification level is higher or lower than required by the job.

SUGGESTIONS

With the help of major findings it is possible to bridge the gap between competency evaluation between graduates and expectations of companies. Robust training policies and systems are important in each country. A good skills development program if incorporated within the system will be able to identify and anticipate skills needed, make training accessible to all sectors in the society, and evaluate the economic and social outcomes of training. Institutions, universities and financial firms must build solid bridges between the world of learning and the world of work. Together business, government, and various industries should understand the importance of training for the changing needs of enterprises and labour markets.

CONCLUSIONS

This study highlights the graduates and employers perception about competencies and the acquired skills by the graduates and the prevailing gap that exists between students and employers. As we are aware that surmountable challenges exists with both employers and graduates, where employers try to find the right candidate with the right skill , and candidates who want to qualify with the right skills and the right job. This study highlights the importance of skills by students during academic training, the skills of lifelong learning that is required in the professional career of graduates in the long run, than the immediate practical application of theoretical knowledge. Graduates need training in specific corporate culture by gaining it would be able to adapt to any given environment that is unambiguous and is constantly changing and by being resilient to face challenges in any given situation.

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