Research Paper   **Management**

Competency Mapping for Entry Level Jobs in Service Sectors and Under Graduates of Selected Arts and Science Colleges

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ABSTRACT

It is very hard to get talents for emerging world of work to match with the unexpected growth and demands of the present competitive markets. Now a day there is a strong feeling that the skills of graduates do not match the needs and the expectations of the employment sector. A number of graduates are good at academics, but not efficient at communication skills and other related skills which are essential for professional contexts. This aspect puts them behind in their career opportunities. Historically, education was one of the determining factors for the progress of human civilization. The modern world is using education increasingly as an instrument for all round development. Many employers now purposefully screen applicant for specific characteristics and skills. If the applicants know their strengths and the expectations of the employers, they can emphasize them on an interview. Students should try to proactively bridge the competency gap between what the industry needs and what they possess. So, competency mapping can also be used to find out the skills required by the employers and its level of acquisition by those seeking employment. Understanding of these aspects, the study has been designed to know the expectations of service sector employers from the undergraduates and their acquisition of skill-sets.

Keywords: skill-sets; world of work; entry level jobs; service sectors.

1. INTRODUCTION

According to Sabitha Niketh (2008), the youth today has a large number of avenues available to them to build a career. They walk out with a graduation degree from various Universities, with great aspirations and expectations. These individuals dream to make big in life with their inherent skills. Job-hopping of employees was found mainly in the Information Technology sector. Now this trend is slowly spreading to the other service sectors like, banking, finance and insurance, retailing and pharmaceutical sectors are also follow the same footsteps. The companies are looking out for young talent that is energetic and having the zeal to excel. At the same time there is a strong feeling that the huge gap between the rapidly evolving skill need of Indian businesses and those provided by our higher education system, there is a growing realization amongst the government, academic institutions and industry, of the urgent need to bridge these skill gaps (Report of Industry – Academia Convergence, 2010). There is a need for an effective intervention to understand employer needs, various sector specific skills, training requirements that improve business performance, articulation of business expectations in educational institutions and engagement of industry leaders with higher education institutions. If one can get bachelor's and master's degree in the respective courses, excellent job are waiting for them in different sectors of employment like hospitals, production industries, banks, financial and insurance companies, multi-national companies, educational institutes and public service organizations. The opportunities for graduates from these streams have increased manifold over the past decade. Yet many graduates remain without jobs. As graduates complain about a lack of jobs, companies across the world see a lack of skilled applicants. The contradiction is explained by the lack of top quality undergraduate education.

2. REVIEW OF LITERATURE

In the present era of dual income families, it has become evident that families need an extended support for leading a comfortable and contented life. The service sector which is booming the present era and especially ITeS sector that creates good opportunities for young minds to work. According to the Ma Foi 2008 survey, in terms of percentage of growth in recruitments, the health sector shows the highest growth

at 8.9%, followed by IT at 7.3%, ITeS at 7.2% and hospitality at 6.9%. Demand for fresh recruits is above 30% in hospitality followed by sectors such as energy generation and supply, ITeS, and mining and extraction. MNCs and Indian companies are adopting a cautious approach to recruitments, particularly the smaller ones. The demand for a smart and sophisticated workforce is sure to go up in the long run. It is high time the employers re-engineered their hiring strategies to win the talent war.

According to Federation of Indian Chambers of Commerce & Industry report, only one in four engineering graduate in India is employable, based on technical skills, English fluency, and teamwork and presentation skills. In addition to the nearly 1.3 million – strong workforce employed directly in the industry, Indian IT – ITES is estimated to have helped create an additional 3 million job opportunities through indirect and induced employment. Indirect employment includes expenditure on vendors including telecom, power, construction, facility management, IT, transportation, catering and other services. By 2009, based on the current human resource supply trends (NASSCOM – KPMG 2003 op cit.), it is estimated that there will be a shortfall of over 0.5 million personnel for the IT and ITES Sector.

Srinivasa Reddy and Ravi Dasari (2005) have made a study of the origin, status, opportunity and challenges of Indian IT Industry. They have indicated the phenomenal growth of IT Industry over the decade 1992-93 to 2001-2002. According to them, availability of a large pool of English speaking man power willing to work at low wages, a tradition of logic and mathematics, past investments by government in building capability in the computing and networking technologies, availability of infrastructure and communication links, favourable policy regime and the growing scarcity have helped in the rise of Indian IT Industry. Despite a very impressive growth profile, the Indian IT Industry is facing a number of challenges. The further growth of industry therefore depends on understanding these challenges and tackling them expeditiously.

The industry tends to favour proven experience and ability over education and qualifications. In some roles, non-IT

graduates compete with IT graduates based on the skills they have to offer, including technical and analytical skills, and not necessarily degree subject studied. When recruiting for roles, almost 65% of employers seek graduates from any degree discipline. (*TARGET Graduate Trends Survey 2005/6: IT sector*, GTI Specialist Publishers, 2006).

In today's competitive age, there are more job seekers than the jobs available; one must continuously try to improve one's communication and other skills to be successful. There are many skills, which are essential for success in life. However those that are important for success in interview and in one's career are domain knowledge, application skill, conceptual skill, communication, creativity and innovation, leadership ability, and teamwork (Murali Krishna, 2003).

The Skills Gap Survey, which focuses on whether there are gaps between the expectations of employers and the performance of newly hired MBAs in the BFSI sector, was conducted between late November 2009 and January 2010. The core topics covered by the Skills Gap Survey are the Knowledge, Skills, and Attitudes employers expect of these new MBAs, and their performance compared to these expectations. In total, data were collected from 113 individuals from 74 organisations in the BFSI sector. The Survey found that industry has the highest expectations for newly hired MBAs in the area of Attitudes, followed by Skills, and finally by Knowledge. Regarding Skills, although listening skills were considered paramount, with 93 percent of the sample reporting this attribute was important or very important, a large gap was seen between expectation and performance. This research revealed two prominent themes. First, there are differences in Knowledge, Skills, and Attitudes based on the institute fresh MBAs attended. Eighty percent of those surveyed felt that the institute mattered. Second, industry is generally concerned with the unrealistic expectations of newly hired MBAs in terms of salary, position, and corporate mobility. Ultimately, respondents believed that both educational institutions and corporations needed to, and can, take action to limit the gaps in Knowledge, Skills, and Attitudes and manage expectations of newly hired MBAs. All respondents believed educational institutes need to focus more on practical education, based in strong, relevant case studies and market-driven curriculum (Skill Gap Survey, 2010).

3. RESEARCH DESIGN
The topic of the study is required to find out aspects such as Skills-set expectations for various sectors of employment and Skills-set acquisition and aptitude level of the students. Hence two types of samples such as Students (571 samples) selected through systematic random sampling method and Human Resource Personnel of Service Sectors of Employment (42 samples) were selected through convenience sampling method. The data were collected through structured survey/ questionnaire method from the target respondents. The most important factors that the service sectors expected from their employees are functional and behavioural competencies and proper attitude. To assess these skill-sets, the tool includes both behavioural and functional skills assessment. Functional skills are basic computer knowledge; organizational skills, analytical ability and the behavioural skills taken for this study are basic communication, team work, leadership skill, time management, critical thinking and adaptability.

4. OBJECTIVES OF THE STUDY
The main objectives of the study are: To

1. identify and prioritize the Skill-sets demand for various service sectors of employment at entry level in the case of Under-graduates
2. assess students' Skill-sets availability and subject knowledge in relation to their Under Graduate studies
3. assess students aptitude level in relation to various sectors of employment
4. measure the gap between the availability of students' skills and the employers' expectations.

5. ANALYSIS AND INTERPRETATION
5.1. Basic Details of the Selected Samples:
• 571 student samples were selected from nine colleges (4 Autonomous and 5 Non-Autonomous) and they are from 3 disciplines covering 8 subjects. Among them one fourth are males and three fourth are females.
• Good academic performance was one of the selection criteria, more than 70 per cent of the respondents scored 60-80 per cent of marks at all levels of their education. Another 25 per cent of them scored 80-90 per cent of marks.
• Nearly half of them studied Tamil medium upto their school education (12 years).
• 40 per cent of the samples studied Computer Science as a subject during their 12th level school education and in colleges mostly all the samples were having at least one Computer paper in their syllabus. Hence they know basic computer knowledge like internet browsing, work with MS Office, etc.
• 42 Human Resource Personnel of service sectors of employment were also studied.

5.2. Skill- sets Expectations for Various Entry Level Jobs
Employment requirements and qualifications vary based on the needs of the employer and their projects/ nature of work accomplished. Hansen and Hansen (2007) reported that some of the key skills and values employers seek from college graduates, including communications (writing, speaking, and interpersonal), teamwork, analytical ability, multitasking, organization, leadership, problem-solving and persistence. The following table (Table 1) gives the requirement of essential skills from entry level graduates for the service sector with the appropriate statistical analysis. The mean rank was calculated to know the preference level (ranks ranges from 1 to 13) and Kendall's W test is also done to know the similarities among the samples preferences.

Table 1: Recruiters' Ranking Essential Skill Expected from the Students

Skill-sets	Mean rank of HR responses (No: 43)
Communication Skills	3.72
Time management	4.66
Team work	5.02
Active Listening	5.09
Reading Comprehension	7.09
Critical thinking	7.09
Organizational Skills	7.12
Analytical Reasoning	7.52
Decision Making	7.97
Written Comprehension	8.33
Problem solving skills	9.00
Ability to learn new technologies fast	9.15
Leadership	9.23
Kendall's W Score	.222

Source: Primary data collected from HRs sample
Communication skills are most required by 43 per cent of given by HRs of the sample companies as first preference and obtained the mean rank of 3.72. 19 per cent of the HRs who responded to prefer team work as their first preference (mean rank is 5.02). Time management and active listening are also equally expected as like team work (mean rank is 5.02). Written Comprehension, Problem solving skills, Ability to learn new technologies fast, Leadership skills are least preferred by the HRs, because opportunities to use these skills are limited at entry level.

Kendall's W score (.222) shows that there are no similarities among the respondents ranking. It is obvious that each sector of employment requirements and qualifications vary based on the needs of the employer and their projects/ nature of work

accomplished. By the end of the Under-graduate education, students are expected to develop a range of skills that will be essential for their future careers.

The above result is supported with the study based on a number of surveys on the skills required by graduates undertaken by Microsoft, Target Jobs, the BBC, Prospects, NACE and AGR and other organizations, here is the summary of the skills which were most often deemed important. In both study, communication holds first place followed by team work, analytical skill, initiative, written comprehension, time management and organizational skills.

Verbal communication	1	Able to express your ideas clearly and confidently in speech
Teamwork	2	Work confidently within a group
Analyzing & investigating	3	Gather information systematically to establish facts & principles. Problem solving.
Initiative/ self motivation	4	Able to act on initiative, identify opportunities & proactive in putting forward ideas & solutions
Drive	5	Determination to get things done. Make things happen & constantly looking for better ways of doing things.
Written communication	6	Able to express yourself clearly in writing
Planning & organizing	7	Able to plan activities & carry them through effectively
Flexibility	8	Adapt successfully to changing situations & environments
Commercial awareness	9	Understand the commercial realities affecting the organization.
Time management	10	Manage time effectively, prioritizing tasks and able to work to deadlines.

Source: http:// www.kent.ac.uk/careers/sk/top-ten-skills.htm\

5.2.1 Requirement of Computer Literacy
The present study also gives the details of the requirement of Computer Knowledge from the candidate. 88.4 per cent of the companies required basic computer awareness and skills. The following table (Table 2) presents the data on various programming language and packages at different level. Students are given the hands-on computer experience, knowledge, and skills that can qualify graduates for careers in business, education, commerce, mechanics, technology, healthcare, and nearly every other field. As well as being an important tool of business, computers have become an important part of the home office, making Computer Education essential for managing personal finance, paying bills, and other household chores.

Table 2: Requirement of Computer Knowledge

Computer Language	Strong Knowledge	Moderate Knowledge
MS Office	65.1	27.9
Internet Usage	39.5	23.3
SQL Server	18.6	14.0
Java	14.0	14.0
HTML	14.0	2.3
Tally	11.6	4.7
Data Structure	9.3	20.9
C, C++	9.3	18.6
. Net	9.3	7.0
MS Dos	7.0	9.3
Oracle	4.7	16.3
VB	4.7	11.6

Source: Primary data collected from HRs sample   *Multiple responses

Most companies demand strong knowledge (the employees have to work without supervision at maximum five percentage of error) on Office suit and internet usage, SQL server, JAVA and HTML. Another 15-20 per cent of the companies required moderate knowledge (work with less supervision and the error percentage may be allowed upto 10%) of Data structure, C language and Oracle and Visual Basic.

5.3. Skill-sets acquisition by the Students
- Twenty per cent of the respondents had very good team work capacity, which was measured through a self assessment tool. Aptitude level also tested through analytical, creativity, comprehension and English tests. More than 60 per cent scored acceptable scores in analytical and mental ability tests, in English language only 45 per cent scored the accepted scores. It is noted that only 25 per cent of them had good scores in creativity and written comprehension.
- There is no significant difference among Computer Science, Science and Commerce and Business Management students in their Skill-sets acquisition

One way ANOVA was applied to find out whether there is a significant difference among the students of various disciplines such as Computer Science, Science, Commerce and Business Management and the set of skills acquired by the students.

Table 3: F- Value for skill set acquisition among the students of various disciplines

Skill-sets acquisition	F value	Significant level
Team work	6.731	**
Leadership skill	8.549	**
Decision Making skill	2.267	NS
Problem solving skill	5.338	**
Time Management	3.110	*
Analytical skill	.533	NS
English Language Competency	11.325	**
Creativity	1.157	NS
Written Comprehension	6.970	**

Implications: Corporate people are not very particular about the study of subjects especially for service sectors of employment. Even though they look for academic achievement at the first level screening, mainly they watch students' non-technical skills like communication, basic computer skills, team work, decision making skills, organizational skills and analytical aptitude level. These are become very essential for the companies. So it is implied that the students should not have the knowledge while taking the course during the admission in colleges with a particular course or the institution. Now a day, the talents are acquired by the corporate through various special schemes which includes the rural based colleges, socially backward community candidates and special children. If one who has the employers' expected skills, the subject doesn't play any role in getting the job in service sectors of employment. Creativity, decision making and analytical ability is basically a skill that is enhanced through continuous practices and purely self interest. These are based on their inner values and attitudes and also it needs updation of knowledge with current scenario of world of work.

To conclude, the above Hypothesis was partially rejected for team work, leadership, problem solving, time management, English language competency and writing comprehension skills. Significant differences were not found among decision making, analytical ability and creativity skills.

- This study also analyzed the difference between types of institutions with regard to Skill-sets acquisition. It is found that there is a difference in team work, leadership, problem solving, time management, English language

competency and decision making and analytical ability between the Autonomous and Non-autonomous colleges' students.
- The statistical tool proved that there is a strong relationship between academic achievement and analytical abilities of the selected students.
- There is no difference between the male and female students in having the English language competency. It

is also proved that there is a significant relationship between the medium of instruction at the school level and the English language competency skills.

5.4 Competency Mapping

H0: There is no significant difference between Skill-sets expectations by the employers and the availability of such skills among the students

Table 4 shows the data pertaining to this aspect of the study is discussed below.
Table 4: Paired Sample t- Test

Skill-sets expected and acquired	Paired difference		t	df	Sig.	Table value
	Mean	S.D				
Communication skills required -acquired	2.5814	2.8555	5.928	42	**	2.698
Active listening- required -acquired	2.3023	5.0828	2.970	42	**	2.698
Reading comprehension required -acquired	.6279	1.3456	3.060	42	**	2.698
Written comprehension- required -acquired	.7674	1.6160	3.114	42	**	2.698
Analytical reasoning- required -acquired	3.5116	3.8691	5.952	42	**	2.698
Organization skills- required -acquired	6.4186	15.5858	2.701	42	**	2.698
Critical thinking- required -acquired	.9302	2.4823	2.457	42	*	2.018
Time management- required -acquired	1.1628	1.1533	6.612	42	**	2.698
Decision making- required -acquired	1.3953	3.0639	2.986	42	**	2.698
Adaptability- required -acquired	1.0000	2.9277	2.240	42	*	2.018
Team work- required -acquired	4.0233	7.2325	3.648	42	**	2.698
Problem solving- required -acquired	.8837	1.3131	4.413	42	**	2.698
Leadership- required -acquired	4.6512	8.2919	3.678	42	**	2.698

Here all the calculated t-values are higher than the table values, so, it is inferred that there is a significant difference between the employers' expectations and the student acquisition with respect to selected Skill-sets. Hence the hypothesis is rejected.

6.Conclusion:

It is time that institutions redefine, reinvent and rediscover the processes to keep their students updated with the latest skills. Training enables one to lead a life with confidence. A man is complete when he is capable of performing things all by him-

self or with very little guidance. Skills-set for domain technicalities are expected from a candidate in the interview and an employee at the time of competency mapping for appraisal. Our education pattern has to be application oriented to suit the real time needs. The essential skills required by every industry have to be a part of the respective curricula and such an orientation would increase the rate of 'employable graduates'. This study would give an idea about the importance of enhancing the Skills-set and aptitude coaching to the Under Graduate Arts and Science students to promote them as employable graduates to academic graduates.

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