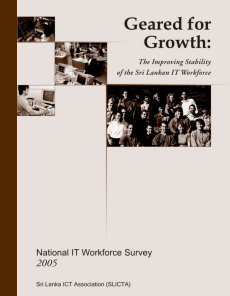


Geared for Growth:

Survey Extract



National IT Workforce Survey 2005

Sri Lanka ICT Association

Executive Summary

There has always been a dearth of information related to the IT industry in Sri Lanka. As an industry in its early stages, however, this situation is not entirely uncommon. While surveys conducted in the past have been good sources of information, a dedicated workforce survey was seen as a necessity to help the industry catapult forward.

Until now the quantity and quality of information about the Information and Communications Technology (ICT) industry in Sri Lanka has been limited and fragmented. This was identified as a significant barrier for the development of the ICT industry sector. Therefore, Sri Lanka ICT Association (SLICTA) proposed preliminary steps to initiate a very specific survey that would deliver a comprehensive picture of the information technology workforce in Sri Lanka.

The ICT workforce survey was completed on December 15, 2004. This report presents the findings of the survey.

The Headlines

- ▶ The IT workforce in Sri Lanka as at the end of last year (2004) stood at 20,276 which is a growth of 30% from 2003
- ▶ Female population in the IT industry is growing albeit slowly and is 22% of the IT workforce at present, which was only 17% in 1998. Interestingly, the proportion of female IT workers is 27% in the public sector
- ▶ ICT product and service suppliers employ 47 % of IT workers while ICT users employ 44% leaving public sector with only 9% of the IT workers
- ▶ The overall attrition rate for the IT workforce has dropped from 19% in 1999 to a respectable 6.6%
- ▶ A good compensation plan is essential to retain IT workers at any level of experience
- ▶ The demand for IT workers this year is 5,724, in 2006 another 5034 IT workers are required
- ▶ Around 4,300 graduates will be required this year by the industry, the supply is just over 3,600
- ▶ Employers find that essential soft skills are deficient in new recruits
- ▶ The starting salary of an IT worker is approximately Rs. 20,000. His capacity to earn increases at a higher rate if in the ICT Supplier sector

The key findings of this survey show that the demand is increasing at over 5,000 IT professionals per year. The IT training industry is also showing growth in number of students trained at all levels of educational qualification, except for the notable exclusion of Ph.D level. The overall attrition rate is at a stable 6.6%. The average acceptable length of employment with a single firm for an IT professional is a healthy three years. Employers' belief that better educated and trained employees stay longer in a job is a vital factor that will lead to the improvement of the quality of the skill base. Overall, there is an air of stability as far as the IT workforce is concerned. This is a good platform indeed for the industry to develop to the next level. Therefore, the IT industry is 'Geared for Growth!'

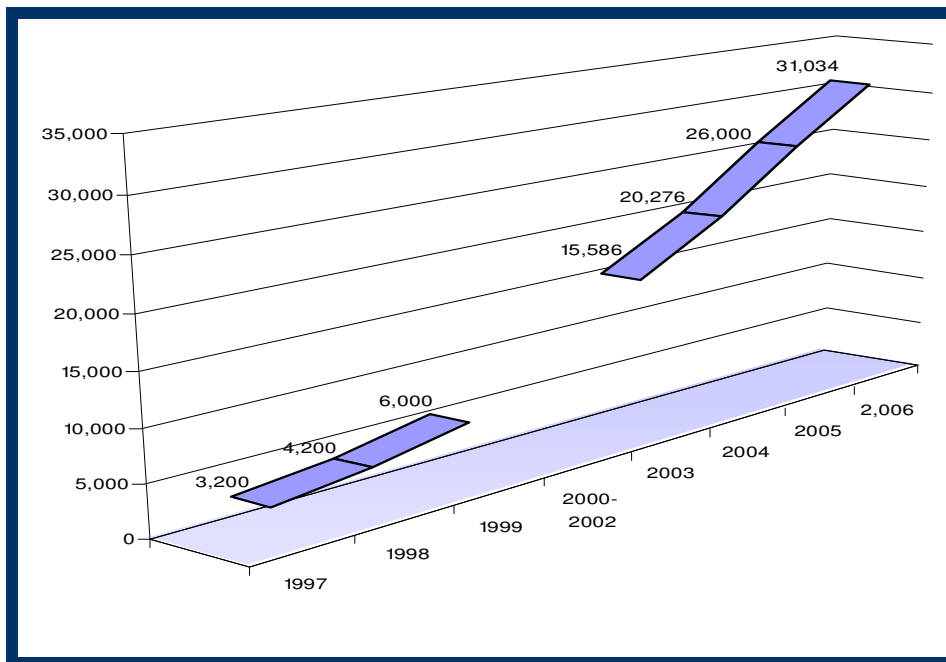
This foundation however, is only the beginning. There are many challenges ahead for the IT training institutions, in particular, to conquer. While the supply is definitely on the increase there is considerable room for improvement in the quality of training programmes.

In order to gain a complete picture of the demand and supply, two separate questionnaires were employed for this survey; one sent to employers of IT workers in order to measure the demand and another aimed at IT training organisations to determine the state of the supply of skilled personnel.

MG Consultants, a survey specialist was employed to implement the survey. The questionnaires were developed with the guidance of the Steering Committee that comprised of members from SLICTA, the academia and industry representatives. Technical assistance from the World Information Technology Services Alliance (WITSA) helped in validating the survey instrument. WITSA is involved with a similar survey for the IT Association of America (ITAA), which has become a widely cited annual publication in the USA. The Competitiveness Program (TCP), a USAID funded program aimed at increasing competitiveness of Sri Lankan industries and the IT Mentors Alliance based in the US were the primary sponsors of this survey. They were complemented by SLICTA, Software Exporters Association (SEA), Sri Lanka Association for the Software Industry (SLASI) and the Association of Computer Training Organizations (ACTOS).

The current IT workforce, as at end of 2004, stands at 20,276, based on the survey findings. The last available estimate of the size of the IT workforce was presented in 2001 in the survey report by Computer Society of Sri Lanka (CSSL)¹, which reported a figure of 6000 for the year 1999. Figure 1 below, shows the growth of the IT workforce. No information is available for 2000 and 2001.

Figure 1: Leaving behind the past: IT workforce growth trend 1999 - 2006



The last available estimate of the size of the IT workforce in 1999 was 6000

¹ CSSL, *Information and Communications Technology Manpower and Skills Survey, 2000/2001*

IT worker in the context of the study

“A person involved in producing IT related output as his primary job function” is how an IT worker is described for the purpose of this survey.

Jobs were classified into twelve high-level categories in order to keep the questionnaire to a manageable size. Many individual job titles were grouped into each job category, disregarding the level of seniority. The IT Association of America (ITAA) job categorization was used as the baseline when deciding on the job categories. Four new job categories were added in this survey to suit the Sri Lankan environment and indeed, gain a more comprehensive picture of the IT workforce requirements. A complete list of the job categories and job titles included in each category could be found in Appendix 3.

Respondents were asked to categorise each of their IT staff into only one category. In situations where a single person was responsible for functions relating to more than one job category, the respondents were instructed to classify them according to the most dominant job function.

The twelve job categories are;

1. Database Administration and Development
2. Digital Media
3. Enterprise Systems Consulting
4. Networking
5. Software Engineering
6. Project Management
7. Quality Assurance
8. Sales and Marketing
9. Technical Support
10. Technical Writing
11. Web Development
12. IT Management

A notable, deliberate, exclusion was the IT Enabled Services (ITES) workers. They were excluded as their main job function does not involve producing IT related output, although they use IT services in their day to day work.

Objectives of the study

The overall aim of this survey was to gain a clear understanding of the extent and the composition of IT workforce in Sri Lanka and weigh that against the extent of the supply of skilled personnel.

The achievement of this overall goal will enable;

1. The IT Suppliers, ICT User organisations and the public sector gain a realistic picture of the overall demand and supply of IT human resources
2. Universities and other IT training institutions to improve their offerings

3. Students to make better course selections that will lead to employment in the IT industry
4. Potential investors to have vital information about the IT workforce that will help them make their investment decisions

Information about the current state of the IT workforce can then be used to produce appropriately skilled IT professionals to suit the needs of employers.

Rationale for sample selection

This survey consisted of two parts; one aimed at managers in organizations that employ IT professionals to assess the demand and another for managers in IT Training organisations to assess the supply of trained professionals. A different questionnaire was sent to each of the two samples.

The employer organisations sample

The employers sample included three categories of organization;

1. **ICT Supplier:** Organizations with the primary business objective of providing ICT products and services.
2. **ICT User:** Private organizations outside the ICT sector. Organisations were selected from a stratified sample of nine vertical sectors to ensure best representation of organisations.
3. **Public Sector:** Ministries, departments, corporations and other government owned agencies.

When developing the sample frame, trade association membership listings and listings from business chambers were used. In addition key organisations that did not appear in those listings were included to ensure a representative sample. In forming the sample frame the main rationale used was the likelihood of those organisations to have IT professionals in their staff. The lack of a complete and up-to-date company listing for the country was the primary reason for taking this approach.

The number of ICT Supplier organisations in the employers' sample was 130. A further 380 ICT User organisations and 118 Public sector organisations made up a sample consisting 628 organisations. A total of 359 completed questionnaires completed from this sample represented an impressive 58% return rate. Respondents to the questionnaire were CIOs, IT Managers or in some cases CEOs themselves.

The Training Organisation sample

The training sample consisted of 108 organisations. This sample included Universities, degree awarding and non degree awarding private institutions as well as government technical colleges. Seventy five training organizations completed this questionnaire giving a return rate of 69%.

Methodology overview

Completed questionnaires were quality checked and entered into an SPSS statistical application database for analysis. Given that the sample for employers was treated separately for ICT suppliers, ICT users and public sector projections were made separately. The results have an overall sampling variability of plus or minus 4.9% at the 90% confidence level. The sample is projectable to all organisations with more than five employees.

For the training sample the overall sampling variation is plus or minus 9.68% at 90% level of confidence.

The sample selection, questionnaire design and results generation were examined by the Head of Statistics Department at the University of Colombo for statistical validity. Their approval was a vital step in presenting the survey findings with a high degree of confidence.

Further details about the survey methodology are found in Appendix 1.

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The Fact Boxes:

Each of the **12 job categories** is profiled in a Fact Box which includes number of employees in each category, demand, minimum qualifications required, skills required, compensation, etc.