

Soft Skills for Sri Lankan ICT Professionals

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Abstract— The report ‘The national ICT work force survey 2013’, (ICTA 2013), conducted on behalf of the Information Communication Technology Agency (ICTA) has identified a growth of ICT work force of 50,159 in 2010 to 75,107 in 2013, a 50 % increase. The projected figure for 2014 had been 82,854 and the momentum is expected to continue, with a shortfall of nearly 500 ICT graduates in 2014. The report quotes the Central Bank Report for 2013 according to which the country had earned US \$ 600 million from the ICT sector that year. The ICTA report identifies 26 university faculties and 45 private colleges providing ICT degree and other programs. Further, according to the report ICT professionals are expected to provide core, technical and soft skills. As guidance to ICT trainers the following is stated at the final conclusion. “An area that needs special attention is developing soft skills that have ranked high among the skills in demand by employers. Among others, **supply situation of soft skills seems to be unhealthy.**” Objective of this research is to broadly investigate reasons for this short fall and to seek for ways of improving this situation. Whereas core & technical skills belong to the cognitive and psychomotor intelligence, soft skills will be considered as pertaining to emotional intelligence as identified by researchers, see Coleman (1992, 1996). Matters such as shortfalls in creative thinking and team work & professional ethics are national issues which needs wider inquiry. Special emphasis will be made on the English language issue as it is connected to communication & presentation and even to team work and also because it is relevant only to our country. To use concepts of emotional intelligence to improve the CIT industry three levels of activity are identified, which are (a) the national, (b) training institutes, (universities & others), and (c) by ICT firms itself. Describing what need be done at the national level will be a wasteful exercise and will be treated only in passing. There are matters that institutes providing ICT training should make use of as emerging from emotional consideration conceptualized by Coleman and these will be discussed. There are activities that ICT organizations can adopt to improve team work and communication skills. The technique SCRUM, used in most US companies and Extreme Programming (XP) will be discussed, see, Pressman (2005); Sommerville (2009).

Keywords— IT Professionals, Soft Skills

I. INTRODUCTION

As stated in the abstract Sri Lanka had benefitted from the use of ICT technology by providing employment opportunities and also by bringing in much needed foreign exchange. However the country is behind neighbouring countries such as Singapore and Malaysia, SITF (2013), Economist (2012). According to the former report in the fiscal year 2013/14, Singapore had earned US \$ 6.3 billion worth of IT exports to China alone. According the latter report Singapore and Malaysia have the highest spending in 2012, with forecasted figures of US\$ 3.9 and 3.3 billion respectively for 2016 in the IT sector. Sri Lanka is not even listed in this study by the Economist magazine.

Thus the problem that motivated this research was that in spite of some progress made in, Sri Lanka is lagging behind some neighbouring countries in the productivity in this sector. The objective of the study is to examine at least one strategy to overcome the above problem.

In seeking a methodology for the above purpose it was noted that issues in soft skills as strongly stated in the ICTA report mentioned in the abstract was one area that should be addressed to strengthen the work of ICT organizations in the country. This report identifies (a) creative thinking, (b) team work, (c) communication & presentation, (d) interpersonal skills, (e) professional ethics, and (f) proficiency in English, as the required soft skills.

Coleman in the reference given earlier identifies self-awareness, self-confidence and self-control, commitment and integrity; the ability to communicate and influence, to initiate and accept change which he collectively calls emotional intelligence as “A premium for today’s job market.”

Means of advancing creative thinking mentioned in the ICTA report should be discussed at a national level in the annals of education and higher education.

Soft skills that may be needed for the local IT industry should address the present scenario and these matters will be discussed in section 2.

It is the contention of this study that there are opportunities at organizational levels that can enhance soft skills and that will be discussed in section 3.

II. SOFT SKILLS NEEDED FOR THE LOCAL IT INDUSTRY

It is worthwhile studying the present trends in the working arrangements of IT professionals which are shown in Table 1.

Table 1 – Soft skills needed for different IT Work Environments

Working Condition	Working groups	Soft skills needed
Normal office hours	Managers, fellow workers, customers occasionally	Communication skills, Team work
Free-lance contractors	Potential clients, clients or agents	High communication skills with emphasis on English language, Professional ethics, Creative thinking
Work alone for overseas company from home on 'Skype' and /or phone or chat at different times	Overseas managers, customers	High communication skills with emphasis on English language, Professional ethics, Team work
Work in local branch of an overseas company; could be normal office hours or from home at different hours	Both local and overseas managers and fellow workers, customers	High communication skills with emphasis on English language, Professional ethics, Team work

It is evident from the above table that professionals should be well versed in communications skills, especially in the English language both spoken and written, in the usage of ethics and in team work, in order to capture and maintain overseas markets for the IT industry.

III. MEANS OF ENHANCING SOFT SKILLS AT ORGANIZATIONAL LEVEL

The importance of having good communication skills especially in the English language was seen as an important requirement for effective work in the IT sector. This calls for both spoken and written English.

Following methods can be used to strengthen soft skills such as communication and team work, ref. Pressman, (2005), Sommerville (2009).

- SCRUM: In this method normally at the end of the day each worker states (a) what h/she had done that day, (b) what is planned for the following day, and (c) what issues were experienced or could happen. This is followed by a discussion on whether some work had been duplicated or likely to be duplicated, how others can assist, etc.

This set of activities can be expected to improve communication skills and also strengthen team work.

- Extreme Programming (XP): Here design, implementation and testing of a programming module are entrusted to a pair of workers. While coding is done by one the other does the testing.

This method will enhance team work.

- Japanese Management Techniques: Japanese management techniques are now being extensively applied by organizations of US and other developed countries, Dirks, (1999). Only a few such methods are described here

Taguchi Method: The use of Think Tanks, brought to fame by Dr Genichi Taguchi, ref. Roy, (2010), uses a set of stakeholders called think tank that has to identify different components and levels. They have to individually give a score for different products.

This method will enhance team work and communication skills to some extent.

Ringo system: Employees of any organization are invited to forward suggestions to solve any problem that is encountered or to improve performance or products. Persons whose proposals are accepted by the senior management are given rewards.

Clearly this method could improve creative thinking among the employees.

IV. CONCLUSION

The paper highlighted the need for improving soft skills to improve the level of the IT industry of the country. Soft skills were identified of which communication abilities in spoken and written English were of paramount importance.

A few methods such as SCRUM, Extreme Programming (XP) could be used by IT organizations to improve communication skills and team work. The Japanese Ringo system could encourage creative thinking.

REFERENCES

The national ICT work force survey 2013, (2013), ICTA SITF Report (2013) Singapore Federation of Information Technology (SITF).

Economist Intelligence Report (2012) Asia Competing Branch, The Economist.

Coleman Daniel (1992) Working with emotional intelligence, Bloomsbury.

Coleman Daniel (1996) Emotional intelligence – Why it can matter more than IQ, Bloomsbury.

Pressman Rogers (2005) Software Engineering – A Practitioner’s Approach, McGraw-Hill, (6th edition)

Sommerville Ian (2009) Software Engineering, Pearson Education (3rd edition).

Dirks, Daniel, Jean-Francois Huchet, and Thierry Ribault, eds. (1999) Japanese Management in the Low Growth Era, Berlin: Springer Verlag.

Roy, Ranjit (2010) Taguchi Method, Society of Manufacturing Engineers, USA