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Why Did You Choose *This Job*? Comparing Career Motivators of IS Students & IS Practitioners

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Abstract

This paper reports findings from the second stage of a research program aimed at achieving a better fit between university courses and professional practise in information systems. The paper presents the results of a survey of IS students from three Victorian universities and IS practitioners from around Australia. The survey investigates attitudes towards employment incentives and conditions that may be used by employers hoping to attract and retain scarce and talented information technology professionals. Respondents were asked to rate the importance of eleven conditions that they considered important in their decision to accept and remain working in an organization. The findings suggest that both are more attracted by a friendly work environment, supportive superiors, and perceived promotional opportunities. Economic incentives such as provision of travel opportunities and other fringe benefits were rated as rather less important. Implications for employers who are dealing with an ongoing global shortage of information technology staff are discussed.

Keywords & ACM Classification Codes (1998)

Information Systems Education - Curriculum [K.3.2.] Social Issues - Employment [K.4.2.] The Computing Profession – Organizations [K.7.2.]

INTRODUCTION

Attracting and motivating people to work is a time-honored subject that has a special meaning for employers who desire to attract and retain high quality information technology professionals in the face of a sustained global shortage of talented staff. In a classic article entitled "One More Time, How Do You Motivate Employees", Herzberg (1968) distinguished "hygiene factors" such as salary and fringe benefits, without which job satisfaction will not occur, but which are not sufficient in themselves to produce job satisfaction, and "motivators" such as professional recognition and other relatively intangible perquisites such as a reserved parking space with a person's name on it, a corner office, or a sonorous title, which, when combined with appropriate "hygiene factors", create a climate in which job satisfaction, productivity, and stability are the result. Herzberg characterized two styles of management, "KITA" and "nurturing." KITA managers assume that they own staff members and that staff are motivated and loyal because of the economic (hygiene) rewards they receive. The KITA rationale assumes that simply increasing economic rewards (and threats of their removal) will be sufficient to retain employee loyalty. *Nurturing* managers have a different approach focused more on a supportive working environment and atmosphere. Yet the KITA manager and style are very much alive and multiplying in the IT world. This paper adds some additional evidence of the naïveté and counter-productivity of relying on KITA to motivate and retain scarce IT professional staff.

Some employers approach the challenge as economic rationalists, throwing ever-greater economic incentives at a seemingly ever-shrinking pool of candidates (Niederman, 1999; Jiang and Klein, 2000). This view is often accompanied by a philosophy of employee ownership - that is, that the employer *owns* the staff member because they pay them so much, and believe that they are fully justified in requiring extraordinarily long hours and neglect of family and personal interests because of the high salaries and other economic benefits offered. Moore (1998) noted the burnout of many IT professionals working in such an environment. Noting the unremitting IT staff shortage, Richens (1998) addressed a number of strategies for recruiting and retaining critical staff in the years to come. Young & Keen (1998) reported a study of initial post-graduation employment experiences. Lee (1999) provided some interesting insights regarding career strategies, job and career plateauing, and job satisfaction among IT professionals. Perotti and Perotti (2000) noted some current behaviors of recruiters of IT graduates in an environment of scarcity. Smith (1998), Castleman and Coulthard (1999), Doke & Williams

(1999), d'Orville (1999), and Westfall (1999-2000) note the growing importance of "soft skills" in IT management candidates. Hunter (2000) noted factors that influenced information systems career paths. Stelf-Mabry (1999) reported a number of insights into the nature and importance of staff development in the recruitment and retention of professional IT staff.

Several leading scholars including Ahmadi and Brabston (1997-1998), Ang & Jiwahhasuchin (1998), Neilsen & von Hellens (1999), Snoke and Underwood (1999a; 1999b; 1999c; 1999d) have studied the perceptions and motivation of students preparing for IT careers. Jiang and Klein (2000) noted the importance of supportive supervisors to the career development and satisfaction of beginning IT professionals. A number of writers including Bentley, Lowry & Sandy (2000), Gorgone and Gray (1999), Marchionini (1999), Orr & von Hellens (2000), have reported studies aimed at improving curriculum design and content for the education of IT professionals.

The present study adds weight to the views of Jiang & Klein (2000) and others that economic rewards in the IS profession, whilst important to a degree, are not the primary attractants for intending and practising IS professionals.

METHOD

Useable surveys were obtained from 253 second, third and higher year students enrolled in business computing degree programs at three universities in Victoria. As only full-time students were included, responses from 15 part-time students were excluded. A survey was also sent to 1006 IS practitioners around Australia, returning 136 useable forms (13.5%). Participants in both groups were asked to rate the importance of incentives offered by employers to IS career professionals. Participants were asked to rate the importance of eleven items on a Lickert scale of 1-7 (irrelevant – essential). The incentives considered included opportunity for promotion, travel, a friendly work environment, challenging work assignments, ongoing training provided by the employer, an industry competitive salary, flexible working conditions, reliable internal communications, supportive superiors, scope for individual skills development, and economic fringe benefits such as company vehicles and shares.

The data were analysed using SPSS for Windows R10. Reliability analysis was undertaken, descriptive statistics were generated, and factor analysis was undertaken as part of an initial screening. Space restrictions preclude a full reporting of all of these.

RESULTS

Table 1 shows the means and standard deviations for each question ranked in descending order of the means on practitioner response. This allows the comparison of the two groups in a systematic way.

Job quality	Practitioners		Students	
	rating	mean	rating	mean
A friendly work environment (JF3)	1	6.35	1	6.14
An industry competitive salary (JF6)	2	6.30	3	5.93
Provision for on-going training (JF5)	3	6.29	5	5.78
Supportive superiors (JF9)	4	6.24	4	5.97
Opportunities to expand personal skills (JF10)	5	6.16	2	6.04
Challenging work assignments (JF4)	6	6.13	9	5.52
Flexible working conditions (JF7)	7	5.96	7	5.72
Good promotional prospects within the company (JF1)	8	5.88	8	5.69
Reliable internal communications (JF8)	9	5.79	6	5.74
Fringe benefits (e.g. company shares, car etc) (JF11)	10	4.77	10	5.39
Opportunities for travel (JF2)	11	4.43	11	4.72

Table 1: Descriptive Statistics

The data in Table 1 indicates that both groups, students and IS professionals, see a friendly work environment (JF3) as the single, most important motivator. An industry competitive salary is the next most important for IS professionals. Fringe benefits and opportunities for travel, the hygiene factors of travel and fringe benefits are ranked lower (10 & 11) for both groups with the student responses are slightly stronger than the professionals.

The results were compared against each other to establish any if these were significant differences. Mann-Whitney U-tests performed on all the questions suggested many significant differences. Table 2 below summarises the ranking by question for each group. As can be seen from Table 2, there are significant differences in the responses for a substantial number of questions. For example, although both students and practitioners rate a friendly work environment as the most important feature, IS practitioners rank it *more strongly*. Although both rate fringe benefits at the bottom, IS practitioners rate them as significantly more important than do students.

Job feature	Group	mean rank	Z-score	significance
Good promotional prospects within the company (JF1)	Students	187.40	-1.919	0.055
	IS Professionals	209.15		
Opportunities for travel (JF2)	Students	197.75	-0.682	0.495
	IS Professionals	189.89		
A friendly work environment (JF3)	Students	185.84	-2.367	0.018
	IS Professionals	212.04		
Challenging work assignments (JF4)	Students	169.82	-6.359	0.000
	IS Professionals	241.85		
Provision for on-going training (JF5)	Students	174.98	-5.075	0.000
	IS Professionals	232.25		
An industry competitive salary (JF6)	Students	180.45	-3.723	0.000
	IS Professionals	222.06		
Flexible working conditions (JF7)	Students	187.04	-2.021	0.043
	IS Professionals	209.82		
Reliable internal communications (JF8)	Students	191.06	-1.003	0.316
	IS Professionals	202.33		
Supportive superiors (JF9)	Students	185.72	-2.372	0.018
	Students	212.26		
Opportunities to expand personal skills (JF10)	IS Professionals	190.85	-1.065	0.287
	Students	202.73		
Fringe benefits (e.g. company shares, car etc) (JF11)	IS Professionals	212.70	-4.371	0.000
	Students	162.07		

Table 2: Mann-Whitney U scores comparing student & IS practitioner survey results

DISCUSSION

This study has looked at those aspects of the work environment that may be regarded as incentives for IS professionals and compared what IS practitioners and students saw as important features of their work situation. In addition to an industry competitive salary, students are looking for career opportunities and pleasant working conditions in which to begin their careers. They are looking for personal growth and development in their chosen career. The “carrots” offered through travel opportunities and other fringe benefits are rated as rather less important. Although beyond the scope of the current study, in an earlier report of a study of students who possess fulltime work experience showed a desire for challenging work assignments that increased as they gained experience. It was predicted that as students gain experience and confidence, their interests will steadily move toward greater challenge in work and recognition of their professional expertise. This appears to be supported.

The limitations of the present study, which include identification of a limited number of possible incentives, preclude generalisation. However, employers may well consider the present findings when developing strategies for recruitment and retention of information technology professionals. Given the shortage of competent technical staff and the high cost of recruiting, training, and socialising them into a professional project-oriented workplace, employers should recognize the factors and incentives that employees hope to obtain from them as the price of continued service and loyalty. Simply paying more to retain entry level IS employees may create more problems than it solves. Instead, a proactive consciousness and integration of those factors and conditions of employment may ultimately provide a greater incentive for staff to accept and remain in employment with a given organization rather than economic, or hygiene factors. The results of this study suggest that fringe economic rewards are of relatively less importance than working conditions that will allow both budding and practising IS professionals to develop professionally.

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