Exploring the job satisfaction and organisational commitment of employees in the information technology environment

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ABSTRACT

The objective of the study was to explore the relationship between employees' job satisfaction (as measured by the Job Satisfaction Survey) and organisational commitment (as measured on the Organisational Commitment Scale). A cross-sectional survey was conducted on a convenience sample of 86 employees at four information technology companies in South Africa. Correlational and stepwise regression analyses revealed a number of significant relationships between the two variables. The findings add new knowledge that can be used to improve organisational practices for the retention of valuable staff members in the information technology environment.

Key words: job satisfaction, organisational commitment, affective commitment, normative commitment, continuance commitment

Introduction

Employee retention is an increasingly important challenge for organisations as the age of the knowledge worker unfolds. The 21st century world of work is characterised by unprecedented levels of talent mobility as employees seek to satisfy their own individual demands, leading to growing concern among organisations about the

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retention of talented employees. Labour market trends in the information technology (IT) field have continued to present increased career opportunities for IT professionals all over the world, and recruitment and retention challenges for the organisations that employ these workers. As a result, research focusing on the retention of employees in the IT environment has received considerable attention over the past 20 years (Gqubule 2006; Ramakrishna & Potosky 2002; Van der Merwe 2008). Organisations are increasingly stating that employees are their most important asset, and as a result they are constantly endeavouring to create an employment brand that is attractive to both existing employees and potential talent, while competing in a "war for talent" (Glen 2006). This has led researchers to emphasise the importance of reviewing the factors that influence individuals' job satisfaction and organisational commitment within the IT environment (Lumley 2010).

Spector (1997) states that job satisfaction influences people's attitude towards their jobs and various aspects of their jobs. Job satisfaction is affected by personal and organisational factors, which cause an emotional reaction affecting organisational commitment (Mowday, Steers & Porter 1979). The consequences of job satisfaction include better performance and a reduction in withdrawal and counter-productive behaviours (Morrison 2008). Since job satisfaction involves employees' affect or emotions, it influences an organisation's well-being with regard to job productivity, employee turnover, absenteeism and life satisfaction (Sempane, Rieger & Roodt 2002; Spector 2008). Motivated employees are crucial to an organisation's success, and therefore understanding people in their jobs and what motivates them could be a driving force in strengthening organisational commitment (Schein 1996). Organisational commitment has attracted considerable interest as attempts have been made to better understand the intensity and stability of an employee's dedication to the organisation (Lumley 2010). Allen and Meyer (1990) identified a link between organisational commitment and employee turnover, and concluded that employees who were strongly committed to the organisation were less likely to leave it.

In light of the fact that research on the relationship between job satisfaction and organisational commitment, particularly in the South African IT context, appears to be limited, the study reported on here set out to add empirical research to the current conceptual base relating to the relationship between these variables as manifested in the IT environment.

Job satisfaction

As job satisfaction is a widely researched and complex phenomenon, it follows that there are numerous definitions of the concept. Job satisfaction can be defined as

an individual's total feeling about their job and the attitudes they have towards various aspects or facets of their job, as well as an attitude and perception that could consequently influence the degree of fit between the individual and the organisation (Ivancevich & Matteson 2002; Spector 1997). A person with high job satisfaction appears to hold generally positive attitudes, and one who is dissatisfied to hold negative attitudes towards their job (Robbins 1993).

Spector (1997) explains that for researchers to understand these attitudes, they need to understand the complex and interrelated facets of job satisfaction. A facet of job satisfaction can be described as any part of a job that produces feelings of satisfaction or dissatisfaction (Spector 1997). This perspective can be useful to organisations that wish to identify employee retention areas in which improvement is possible (Saari & Judge 2004; Westlund & Hannon 2008).

Job satisfaction is a result of an individual's perception and evaluation of their job influenced by their own unique needs, values and expectations, which they regard as being important to them (Sempane et al. 2002). Research has indicated that job satisfaction does not come about in isolation, as it is dependent on organisational variables such as structure, size, pay, working conditions and leadership, which represent the organisational climate (Sempane et al. 2002). However, if job satisfaction is absent and other work opportunities present themselves, turnover could well increase (Martins & Coetzee 2007). Job satisfaction can be viewed as a reaction to a job, arising from what an individual seeks in a job in comparison with the actual outcomes that the job provides to the individual (Rothmann & Coetzer 2002).

According to Rothmann and Coetzer (2002), job satisfaction among employees is an indicator of organisational effectiveness, and it is influenced by organisational and personal factors. Most employers realise that the optimal functioning of their organisation depends in part on the level of job satisfaction of employees, hence the emergence of the statement, "Happy employees are productive employees" (Saari & Judge 2004). For performance to be optimal, an employee's full potential is needed at all levels in organisations; this emphasises the importance of employee job satisfaction (Rothmann & Coetzer 2002).

For the purposes of the research conducted, nine facets of job satisfaction were identified (see Table 1), namely: pay, promotion, supervision, benefits, contingent rewards, operating procedures, co-workers, nature of the work and communication (Spector 1997).

Pay and promotion

Pay is associated with global satisfaction and even more closely with the facet of pay satisfaction. Although money is important to individuals, research has shown that

Table 1: Nine facets of job satisfaction, with descriptions

Facet	Description
Pay	Satisfaction with pay and pay raises
Promotion	Satisfaction with promotion opportunities
Supervision	Satisfaction with person's immediate supervision
Fringe benefits	Satisfaction with monetary and non–monetary fringe benefits
Contingent rewards	Satisfaction with appreciation, recognition and rewards for good work
Operating procedures	Satisfaction with operating policies and procedures
Co–workers	Satisfaction with co–workers
Nature of work	Satisfaction with type of work done
Communication	Satisfaction with communication within the organisation

Source: Spector (1997)

individuals who earn more are not necessarily more satisfied in their jobs (Spector 2008). In a study by Yang, Miao, Zhu, Sun, Liu and Wu (2008) to evaluate the influence of pay increases on job satisfaction in the Chinese military, it was found that pay is an important factor affecting overall job satisfaction.

Promotions provide opportunities for personal growth, more responsibilities and increased social status (Robbins 1993). Job satisfaction is likely to be experienced by individuals who perceive promotional opportunities to be fair (Robbins 1993; Spector 1997).

Supervision, nature of work and communication

An immediate supervisor's behaviour is also a determinant of job satisfaction (Spector 1997). Employee satisfaction increases when the immediate supervisor is understanding, friendly, offers praise for good performance, listens to employees' opinions and shows personal interest in them (Robbins 1993). The nature of the work may be influenced by the supervisor's behaviour. The nature of work satisfaction is defined as the employees' satisfaction with the type of work they do (Spector 1997). Employees prefer work that is mentally challenging in that it provides them with opportunities to use their skills and abilities and offers a variety of tasks, freedom and feedback on how well they are doing (Robbins 1993). The formation of specific goals, feedback on progress towards these goals, and reinforcement of desired behaviour all stimulate motivation and require communication. The fewer distortions, ambiguities

and incongruities that occur in communication within organisations, the more satisfied employees will feel with regard to their work (Robbins 1993).

Fringe benefits and contingent rewards

Spector (1997) divides fringe benefits into monetary and non-monetary benefits. Increasing intrinsic and extrinsic fringe benefits that attract an employee's attention may subsequently increase their performance and induce higher levels of organisational commitment (Suliman & Iles 2000). According to Spector (1997), examples of contingent rewards are appreciation, recognition and rewards for good work. Employee dissatisfaction may result if an employee perceives that their efforts are not recognised or that their rewards are not equitable, tied to their performance or tailored to their needs (Robbins 1993). Contingent rewards support the reinforcement theory of motivation, in terms of which performance-relevant behaviours will increase in frequency if rewarded (Spector 2008).

Operating conditions and co-workers

Perceptions of fairness are important determinants of people's behaviour and reactions to work (Spector 2008). According to Martins and Coetzee (2007), employee motivation and organisational culture are affected by how an employee's needs and objectives are integrated with the needs and objectives of the organisation, work–life balance practices and physical work environment. Work fulfils an individual's social factor need. Therefore, having friendly and supportive co-workers leads to increased job satisfaction (Robbins 1993). According to Ghazzawi (2008), an employee's co-workers, the groups they belong to, and the culture to which an individual is exposed all have the potential to influence job satisfaction.

Specific job characteristics lead to positive psychological states such as experiencing the meaningfulness of work, feelings of responsibility and knowledge about the products of work, which in turn lead to satisfaction with the job (Judge, Bono & Locke 2000; Spector 1997). Autonomy gives rise to feelings of responsibility. Knowledge about the products of work is gained through job feedback. When these characteristics are combined, the scope and complexity of a job is defined. High scope results in high levels of job satisfaction, while low scope leads to boredom and dissatisfaction. Aspects of the job and the organisational environment relate to job satisfaction, and as a result some situations produce positive job satisfaction, while others produce job dissatisfaction (Spector 2008).

Organisational commitment

The concept of organisational commitment has attracted considerable interest in an attempt to understand and clarify the intensity and stability of an employee's dedication to the organisation (Lumley 2010). In the context of the present study, organisational commitment is regarded as an attitude, as it relates to individuals' mindsets about the organisation (Allen & Meyer 1990).

Gbadamosi (2003) contends that the more favourable an individual's attitudes toward the organisation, the greater the individual's acceptance of the goals of the organisation, as well as their willingness to exert more effort on behalf of the organisation. Mathieu and Zajac (1990) believe that developing a better perception of the progression associated with organisational commitment has an effect on employees, organisations and the world in general. The level of employees' organisational commitment will possibly ensure that they are better suited to receiving both extrinsic rewards (which include remuneration and benefits) and psychological rewards (which include job satisfaction and associations with fellow employees) related to associations. Organisational commitment is generally assumed to reduce adandonment behaviours, which include tardiness and turnover. In addition, employees who are committed to their organisation may be more willing to participate in 'extra-role' activities, such as being creative or innovative, which frequently guarantee an organisation's competitiveness in the market (Katz & Kahn 1978).

Organisational commitment is viewed as a psychological connection that individuals have with their organisation, characterised by strong identification with the organisation and a desire to contribute to the accomplishment of organisational goals (Meyer & Allen 1997). Meyer and Allen's (1991) three-component model of organisational commitment is therefore of relevance to this research. Meyer and Allen (1991) conceive of organisational commitment as reflecting three core themes, namely affective, continuance and normative commitment. Commitment can be seen as an affective point of reference towards the organisation (affective commitment), acknowledgement of the consequences of leaving the organisation (continuance commitment), and an ethical responsibility to stay with the organisations (normative commitment) (Meyer & Allen 1991).

Affective commitment

Affective commitment is the individual's psychological or emotional connection to, identification with and participation in the organisation (Meyer & Allen 1997). Employees who are affectively committed to the organisation will probably carry

on working for it because they want to (Meyer & Allen 1991). Individuals who are dedicated at an emotional level usually remain with the organisation because they see their individual employment relationship as being in harmony with the goals and values of the organisation for which they are currently working. Affective commitment development involves identification with the organisation and internalisation of organisational principles and standards (Beck & Wilson 2000).

Continuance commitment

Continuance commitment is regarded as an awareness of the costs associated with leaving the organisation (Meyer & Allen 1997). Because of the individual's awareness or consideration of expenses and threats linked to leaving the organisation, continuance commitment is considered to be calculative (Meyer & Allen 1997). Individuals with continuance commitment remain with a specific organisation because of the money they as employees earn as a result of the time spent in the organisation, and not because they want to. This differs from affective commitment, where individuals remain with an organisation because they want to and because they are familiar with the organisation and its principles.

Normative commitment

Normative commitment can be explained as a sense of responsibility to continue employment with a specific organisation (Meyer & Allen 1997). The internalised idea of responsibility and commitment allows employees continued membership that is appreciated by a specific organisation (Allen & Meyer 1990). The normative element is seen as the commitment individuals consider morally appropriate regarding their remaining with a specific organisation, irrespective of how much status improvement or fulfilment the organisation provides the individual over the years (March & Mannari 1977).

Job satisfaction and organisational commitment

Strong positive relationships have been observed between organisational commitment and desirable work outcomes such as performance, adaptability and job satisfaction (Angle & Perry 1981; Hunt, Chonko & Wood 1985; Mowday, Porter & Dubin 1974). Research results indicate that satisfied employees tend to be committed to an organisation, and employees who are satisfied and committed are more likely

to attend work, stay with an organisation, arrive at work on time, perform well and engage in behaviours helpful to the organisation (Aamodt 2007).

According to Kotze and Roodt (2005), a strong correlation has been empirically established between job satisfaction, employee commitment and retention. Organisational commitment is most probably affected by factors such as type and variety of work, the autonomy involved in the job, the level of responsibility associated with the job, the quality of the social relationship at work, rewards and remuneration, and the opportunities for promotion and career advancement in the company (Riggio 2009).

In view of the apparent relationship between job satisfaction and organisational commitment, the following hypothesis was formulated for the purposes of the study reported on here:

Hypothesis: Job satisfaction relates significantly and positively to organisational commitment.

Research design

Research approach

For the exploratory study conducted, a quantitative survey design was used to achieve the research objective (Shaughnessy & Zechmeister 2003).

Participants

The total population was a convenience sample of 195 employees across four head office IT companies based in the province of KwaZulu-Natal, South Africa. All these companies were registered with the Information Systems, Electronics and Telecommunications Technology (ISETT) Sector Education and Training Authority (SETA). In all, 86 useable questionnaires were returned, yielding a moderate response rate of 44%. The racial composition of the sample (n = 86) was as follows: whites (68%), Indians (26%) and Africans (6%). Overall, there were more male (53%) than female (47%) participants in the sample. Most of the participants were employed at staff level (59%) and the others at supervisory level (41%).

Measuring instruments

The Job Satisfaction Survey (JSS) (Spector 1997) and the Organisational Commitment Scale (OCS) (Meyer & Allen 1997) were used to measure the variables of concern to this study.

Job Satisfaction Survey (JSS)

The JSS (Spector 1997) assessed nine facets of job satisfaction (pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, co-workers, nature of the work and communication), as well as overall job satisfaction. The questionnaire consisted of a set of 36 items, all of which were considered to be of equal value and to which subjects responded in terms of how true the statement was. The scale was a summated rating in the form of a six-point Likert-type scale. The purpose of this questionnaire was to stimulate the respondents' thoughts about their own areas of job satisfaction in relation to the nine facets of the JSS. Construct, discriminant and convergent validity of the JSS were established by Spector (1997). Inter-item correlations ranged from 0.61 for co-workers to 0.80 for supervision (Hackman & Oldham 1975; Spector 1997). In terms of reliability, internal consistency reliability coefficients for the JSS ranged between 0.60 for the co-worker sub-scale and 0.91 for the total scale (Spector 1997).

Organisational Commitment Scale (OCS)

Organisational commitment was measured using the three-dimensional Meyer, Allen and Smith (1993) instrument originally developed by Allen and Meyer (1990). The affective, continuance and normative organisational commitment scales each comprised six items, modified from the original questionnaire consisting of 24 items. Meyer et al. (1993) reported internal consistency reliability estimates (Cronbach's alphas) for affective commitment (0.82), continuance commitment (0.74) and normative commitment (0.83). Responses were made on a 7-point Likert-type scale and were averaged to yield composite commitment scores for each respondent. Studies by Coetzee, Schreuder and Tladidyane (2007), Ferreira (2009) and Lumley (2010) confirmed the reliability and validity of the OCS in the South African context.

Since the purpose of this study was not to make individual predictions based on the JSS and OCS, but rather to investigate broad trends and relationships between certain variables, the instruments were considered to be psychometrically acceptable.

Research procedure

Ethical clearance and permission to conduct the study were obtained from the management of the participating companies. Individuals were invited, by means of an e-mail meeting request, to participate in a session that would take approximately 30 minutes, during which the data would be collected. Individuals who indicated interest in participating were calendar booked by the use of e-mail to attend one of several sessions each involving 8 to 10 individuals. The purpose of the study was also communicated to all participants both by e-mail and verbally. Participation was voluntary, based on the acceptance of the meeting request sent out. Anonymity and confidentiality of information supplied by all individuals participating in the study were maintained.

Statistical analysis

The data analysis procedures chosen for this research were based on their applicability to the exploratory nature of the research design. Descriptive and inferential statistics were used to analyse the data. Pearson-product moment correlations and stepwise multiple regression analysis were performed to test the research hypothesis. Although a cut-off point of $p < 0.05$ was set, a practical effect size of $r > 0.30$ (medium effect, Cohen 1992) was also considered for the correlational analyses in order for the practical significance of the findings to be interpreted. In terms of the multiple regression analyses, the value of adjusted R^2 was used to determine the proportion of the total variance of the dependent variable (OCS) that is explained by the independent variable (JSS). The F-test was used to test whether there was a significant regression ($p \leq 0.05$) between the independent and dependent variables. For the purposes of this study, r-values larger than 0.30 (medium effect) and R^2 values larger than 0.13 (medium effect) (Cohen 1992) were regarded as practically significant.

Results

Means, standard deviations and Cronbach's alpha coefficients

Means, standard deviations and internal reliability for the variables of interest are shown in Table 2. In terms of the JSS, the highest mean scores were obtained on the supervision (m = 19.35; SD = 4.71) and nature of work (m = 19.07; SD = 3.40) sub-scales and the lowest mean score on the promotion sub-scale (m = 13.83; SD = 4.34). The standard deviations of the sub-scales are fairly similar, all ranging from 3.40 to 4.71.

Table 2: Descriptive statistics: JSS and OCS (N = 86)

Measuring instrument subscales	Means	Standard deviations	Cronbach's alpha coefficients, total sample
JSS			
Pay	16.58	4.27	0.78
Promotion	13.83	4.34	0.78
Supervision	19.35	4.71	0.89
Fringe benefits	15.02	4.02	0.72
Contingent rewards	16.48	3.73	0.76
Operating procedure	15.79	3.67	0.48
Co–workers	18.34	3.40	0.58
Nature of work	19.07	3.37	0.70
Communication	15.29	4,23	0.72
Total job satisfaction	**149.74**	**24.19**	**0.92**
Affective commitment	4.64	1.12	0.79
Continuance commitment	4.12	0.97	0.68
Normative commitment	4.35	1.20	0.82

The mean scores of all the OCS scales ranged from 4.64 to 4.12. The sample of participants obtained the highest mean scores on the affective commitment (m = 4.64; SD = 1.12) sub-scales and the lowest scores on the continuance commitment sub-scale (m = 4.12; SD = 0.97). The standard deviations of the sub-scales are fairly similar, all ranging from 0.97 to 1.20.

Hypothesis testing: Relationship between job satisfaction and organisational commitment

The primary aim of this study was to assess empirically whether job satisfaction relates to organisational commitment. This was done by performing Pearson-product moment correlations and by conducting standard stepwise multiple regression.

Correlational statistics

Pearson-product moment correlations allowed the researcher to identify the direction and strength of the relationship between each of the variables. As shown in Table 3, significant positive relationships ($p \leq 0.001$; medium to large practical effect sizes) are

observed between all the JSS variables and the OCS affective commitment variable, with the exception of the operating conditions variable. Similarly, significant positive relationships are observed between all the JSS variables and the OCS normative commitment variable ($p \leq 0.01$; medium practical effect size), with the exception of the operating conditions variable. No significant relationships were observed between the OCS continuance commitment and JSS variables.

Table 3: Significant Pearson–product moment correlations: JSS & OCS (N = 86)

JSS scale	Affective commitment	Normative commitment
Pay	0.62*** +++	0.38*** ++
Promotion	0.38*** ++	0.30** ++
Supervision	0.47*** ++	0.28** +
Fringe benefits	0.37*** ++	0.31*** ++
Contingent rewards	0.49*** ++	0.32*** ++
Co-workers	0.46*** ++	0.37*** ++
Nature of work	0.54*** +++	0.41*** ++
Communication	0.43*** ++	0.32*** ++

*** $p \leq 0.001$ **$p \leq 0.01$ *$p \leq 0.05$ (two–tailed)
+++ $r \geq 0.50$ (large practical effect size) ++ $r \geq 0.30 \leq 0.49$ (medium practical effect size) + $r \leq 0.29$ (small practical effect size)

Stepwise multiple regression analysis: JSS and OCS

Table 4 shows that the pay ($\beta = 0.37$; $p = 0.000$) and nature of work ($\beta = 0.30$; $p \leq 0.001$) variables positively predict total organisational commitment by explaining 29% (large practical effect size) of the variance.

The JSS pay, nature of work and co-workers variables contribute significantly to the variance in the OCS affective commitment variables (50%) (large practical effect size). Pay obtained the largest beta weight ($\beta = 0.44$; $p \leq 0.001$), followed by nature of work ($\beta = 0.32$; $p \leq 0.001$) and co-workers ($\beta = 0.17$; $p \leq 0.05$). It is important to note that when the co-workers variable was included in the computing of the multiple regression analyses, it increased the variance in job satisfaction scores by 1%. This observation is also in line with the Pearson-product correlation moment coefficients reported in Table 3, where both pay and nature of work had the most

Table 4: Multiple regression analyses: JSS & OCS (N = 86)

Variable	Unstandardised coefficient		Standardised coefficient	t	p	F	Adjusted R _square_	R
	b	**_SE_ b**	β					
Total commitment (constant)	2.06	0.41		5.03	0.00	17.92	0.29*** +++	0.55
Pay	0.06	0.02	0.36	3.72	0.000			
Nature of work	0.07	0.02	0.30	3.07	0.003			
Affective commitment (constant)	**b**	**_SE_ b**	β					
	−0.33	0.59		−0.57	0.57	29.78	0.50*** +++	0.72
Pay	0.12	0.02	0.44	5.17	0.00			
Nature of work	0.11	0.03	0.32	3.77	0.00			
Co–workers	0.06	0.03	0.17	2.03	0.05			
Normative commitment (constant)	**b**	**_SE_ b**	β					
	0.97	0.70		1.38	0.17	12.29	0.21*** ++	0.48
Nature of work	0.11	0.04	0.32	3.08	0.00			
Pay	0.07	0.03	0.26	2.55	0.01			

*** $p \leq 0.001$ ** $p \leq 0.01$ * $p \leq 0.05$

\+ $R^2 \leq 0.12$ (small practical effect size)   ++ $R^2 \geq 0.13 \leq 0.25$ (medium practical effect size) +++ $R^2 \geq 0.26$ (large practical effect size)

significant correlations with affective and normative commitment. Pay and nature of work are the same job satisfaction drivers found in the regression analysis between total organisational commitment and job satisfaction. The JSS nature of work ($\beta = 0.32$; $p \leq 0.001$) and pay ($\beta = 0.26$; $p \leq 0.01$) variables positively predict normative commitment by explaining 21% (medium practical effect size) of the variance.

In the light of the foregoing result, the hypothesis is accepted.

Discussion

Overall, the findings suggest significant relationships between the job satisfaction and affective and normative commitment variables. The positive associations observed between the job satisfaction variables and the affective commitment variable shown in Table 3 suggest that participants who are satisfied with pay, promotion (advancement), supervision, fringe benefits, contingent rewards (recognition and

achievement), relationship with co-workers, nature of the work and communication (organisational and job specific) seem to feel more emotionally attached to and involved with their respective organisations. These results are in line with findings reported by Spector (2008) that job satisfaction relates most strongly to affective commitment. The findings may be attributed to the notion that both job satisfaction and affective commitment relate to an individual's attitude towards their work.

Similarly, the positive relationships observed between the job satisfaction and the normative commitment variables suggest that participants who are satisfied with pay, promotion, supervision, fringe benefits, contingent rewards, co-workers, nature of the work and communication seem to feel more obliged to remain with their respective organisations because of social norms. These areas of job satisfaction can be described as the obligations that exist in an employment relationship. Research suggests (Döckel, Basson & Coetzee 2006; McDonald & Makin 2000; Meyer & Allen 1997) that normative commitment is characterised by the obligations that create a psychological contract between employer and employee. The obligations are both objective economic exchanges (contingent pay, working overtime, giving notice and high performance-based pay) and subjective social exchanges (employee loyalty, job security and co-worker relationships).

The absence of significant relationships observed between operating conditions and affective, normative and continuance commitment suggests that the participants' commitment to their respective organisations may not necessarily be related to their satisfaction with the company rules and procedures. Similarly, the absence of a significant relationship between job satisfaction and continuance commitment suggests that the participants' decision to stay with their respective companies due to their feelings of attachment (affective commitment) and obligation (normative commitment) may be a consequence of their satisfaction with extrinsic and intrinsic motivational factors (pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, co-workers, nature of work and communication), rather than the costs associated with leaving the company (Meyer & Allen 1997). The findings of this study seem to be in line with research conducted by Meyer et al. (1993), which shows job satisfaction to be significantly positively related to affective and normative commitment, and negatively associated with continuance commitment.

The results further showed that the participants' level of satisfaction with their pay and the nature of the work were significant in terms of predicting or explaining their overall commitment to the organisation. Pay and nature of work are associated with the behaviour that governs an individual's career motivations and decisions to stay with a company. Pay measures the elements of pay fairness and procedural justice in pay policies. According to Spector (1997), pay satisfaction is driven

extrinsically, and if it is unfairly dealt with or is absent, individuals tend to become demotivated. Mathieu and Zajac (1990) indicate a positive correlation between salary and commitment. The results of the present study support the findings of Döckel et al. (2006) that 'competitive' and 'fair' compensation is used as a primary incentive to attract professionals. Compensation offers an individual the opportunity for security, autonomy, recognition and improved self-worth, which consequently increases their sense of self-worth, leading to affective commitment (Döckel et al. 2006). Meyer and Allen (1997) emphasise that perceptions of fairness in compensation have a direct influence on affective organisational commitment. Nature of work (an intrinsic motivator) is measured by an individual's feeling that their job is meaningful, engagement, and a sense of pride in the job (Spector 1997). Satisfaction with the nature of work was found by Westlund and Hannon (2008) to be significantly related to an employee's intention to remain with an organisation.

The findings also support the findings of Martin and Roodt (2008), who state that employees value certain conditions of work, and that if these conditions are evident and congruent with the individual's own needs, employees will be more satisfied and committed and less likely to leave the organisation. Therefore pay, nature of work and co-worker relationships need to be congruent with employees' own needs, making them feel affectively committed to their employer and resulting in improved retention. Since work plays an important part in fulfilling an individual's social needs, co-worker acceptance and sense of group and culture belonging could affect job satisfaction (Ghazzawi 2008; Robbins 1993).

The relationship observed between normative commitment and the participants' satisfaction with their pay and the nature of their work are in line with research conducted by Döckel et al. (2006); these authors found pay to have a direct effect on normative commitment. According to Meyer and Allen (1997), high performance-based pay creates an economic obligation for an individual to remain with an organisation. When considering that the participants' satisfaction with the nature of their work appears to have a significant effect on their normative commitment, the findings may be useful for guiding managers in making effective work assignment decisions and improving job designs, with the intention of increasing organisational commitment and improving employee retention. According to Klaus, LeRouge and Blanton (2003), through better job assignment or work design, employees may display greater commitment, leading to better job performance.

Conclusions, implications and recommendations

The overall findings of the study add to the retention literature by shedding new light on how the job satisfaction of individuals employed in the IT environment relates to their levels of organisational commitment. In practical terms, the new knowledge gained from observing the relationship between specific job satisfaction factors and the affective and normative commitment of the participants may be useful in the attraction, selection, placement, development and reward and remuneration of talented employees in the IT environment. The results suggest that in order to create a working environment that encourages people to stay with their respective organisations, managers need to review existing pay practices so as to offer fair pay, provide challenging and meaningful work tasks, and foster positive co-worker relationships.

Since the present study was limited to participants employed in IT institutions in the province of KwaZulu-Natal, South Africa, the results cannot be generalised to other occupational contexts and regions. Future research efforts should focus on obtaining a larger and more representative sample of employees in the IT environment. Furthermore, given the exploratory nature of the research design, this study can yield no statements about causation. The observed associations between the variables have therefore been interpreted rather than established. Notwithstanding these limitations, the study should be seen as a step towards making a positive contribution to the retention of valuable staff in the South African IT context.

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