

INVESTIGATING TURNOVER INTENTIONS BY ROLE OVERLOAD, JOB SATISFACTION AND SOCIAL SUPPORT MODERATION

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ABSTRACT

Gold mining in South Africa has played a significant role in the economic development of the country. However, the current economic, personnel and rationalisation pressures could imply a loss of production in this industry. The focus of this research fell on investigating the role that social support may play in the translation of employees' role overload and job satisfaction on their intentions to leave the organisation. A cross-sectional survey design with a random sample was used ($n = 206$). Results indicate that job satisfaction is the most significant predictor of turnover intention, but that collegial support plays an important role in moderating the effects of role overload on turnover intention.

Keywords:

Role overload, social support, turnover intention, job satisfaction

Following the historic changes in South Africa post-1994, much change has taken place in political, economic, social and technological environments (Bainbridge, 1996; Brill & Worth, 1997). In terms of South African law, Grogan (2000) suggested that the law governing employment relations, has undergone the most and most frequent changes. A case in point is the Employment Equity Act (South Africa, 1998), and the Broad-Based Socio-Economic Empowerment Charter for the South African Mining Industry (Mining Charter, 2004), that brought changes to the mining industry policies and decision-making processes in terms of selection and recruitment.

The Mining Charter (2004) states that South African mining companies should establish targets for employment equity, particularly in the junior and senior management categories. Companies agree to spell out their plans for employment equity at management level. Such an environment may easily expose individuals working within it to job stressors like role overload and job dissatisfaction (Moodie, 1994).

In the literature, a distinction between a qualitative and quantitative dimension of role overload has been developed. Beehr, Walsh and Taber (1976) see quantitative role overload as simply having too much to do given the time available. Sverke, Hellgren and ...hrming (1999) describe the qualitative dimension of role overload as requiring skills, abilities or knowledge beyond that which the individual in the position possesses. However, the two dimensions of role overload are related due to individual and professional characteristics and abilities, and the nature of the work itself. Coverman (2001) has interestingly indicated that a decrease in workload may be associated with an increase in job satisfaction. Theoretically though, an 'optimum' level of workload should exist: Where work is challenging and demanding enough of employees' time, skills and abilities to keep them engaged, committed and satisfied, but not so high as to be demotivating.

Job satisfaction refers to a subjective notion and positive emotional response of the individual and it presents the best measure of the value individuals perceive themselves as deriving from the job, in consideration of what they want and value (Clark & Oswald, 1996; Hom & Kinichi, 2001). It is recognised that job satisfaction is influenced by a myriad of job-related factors, such as pay, benefits, conditions of employment, relationships with supervisors and colleagues and fundamental benefits individuals perceive themselves as receiving from doing the job (Sloane & Williams, 2000).

McIntosh (1991) defined social support as perceived or actual resources available to one individual from another, which assists the first individual in dealing with stress or enhancing their wellbeing. These resources may take the form of emotional support, practical assistance, or support of a material nature (Kessler, 1992). Social support is mostly thought to interact with strains in alleviating their outcome in terms of stress, although the direct effects of social support in mitigating strains are also supported (Beehr, King & King, 1990). The interaction effect of social support with strains is also referred to as the 'buffering effect', since social support appears to 'buffer' individuals against negative outcomes of occupational strain (Beehr et al., 1990). The amount of social support an individual perceives has been shown to be associated with lower experiences of depression (Brown & Harris, 1978), strain (Stotland & Pendleton, 1989) and importantly for our theses, turnover intention (Furnham & Walsh, 1991; Hatton & Emerson, 1993). Seminal work on social support has suggested that although it may come from many sources, such as supervisors, colleagues, family and friends, the support received from people at work is the most important for mitigating occupational strain (Beehr, 1985; House, 1981; LaRocco, House & French, 1980).

Social support at work is also noted as an important contributor to individuals' experience of job satisfaction (Jones, 1989; Limbert, 2004) and general wellbeing (Thompson, 2005). More social support usually translates into a higher level of job satisfaction and organisational commitment (Furnham & Walsh, 1991) and improves mental wellbeing (Buunk & Verhoeven, 1991). Social support at work has also been noted as an important moderator in the translation of work stress into individual outcomes (Kirmeyer & Dougherty, 1988).

In general, the dual-model view (Cohen & Wills, 1985) of the effect of social support in terms of organisational outcomes has received most support. This view emphasises that social support is directly related to individuals' experience of work stress (i.e. having social support makes individuals less stressed), but also has a moderating effect (i.e. because I get along well with my supervisor, I am more happy at work and therefore experience less stress). French (1989) specifically indicated the moderating effect of social support between role overload and complaints relating to depression and irritation at work. Wells (1989) also indicated that social support may aid individuals in appraising their workload as more bearable.

The appraising of workload specifically was investigated by Kirmeyer (1990), who indicated that individuals with more positive appraisals of their social support also appraise their workload more favourably.

While job satisfaction has been shown to be an important direct predictor of individuals' intentions to leave the organisation, this intention may be tempered when the individual perceives that they are supported by their supervisor (Brough & Frame, 2004; Eisenberger, Stinglahamber, Vandenberghe, Sucharski & Rhoades, 2002). Considering different sources of work-based support, support from the supervisor has been shown to be a stronger predictor of positive outcomes than for example support from colleagues (Kirk-Brown, 1999, Mayes, 1986). This effect has been theorised to be related to the fact that the supervisor is probably in a better position than colleagues to do something about resolving the individual's negative work experiences (Thompson, 2005).

During the initial stages of the study of human resource management, the study of turnover has attracted attention due to its negative impact on organisational effectiveness. Planned turnover behaviour has been indicated as the best indicator of actual subsequent turnover behaviour (Lee & Mowday, 1987). By identifying factors that may be related to turnover intention, managers and researchers may act proactively in retaining their talented employees. Job satisfaction is in turn considered a major role player in most theories on turnover intention (Hom & Kinichi, 2001). Satisfied employees simply stay in their jobs longer, while unsatisfied employees usually tend to consider other alternatives, which they perceive may be better (Busch, 1998, Trevor, 2001).

The objective of this study can thus be stated as investigating the relationship between individuals' qualitative and quantitative experiences of role overload, job satisfaction, social support at work and turnover intentions. More specifically, the focus falls on the moderating effect that social support at work may play in the translation of experiences of role overload and job (dis)satisfaction into employees' intentions to leave the organisation.

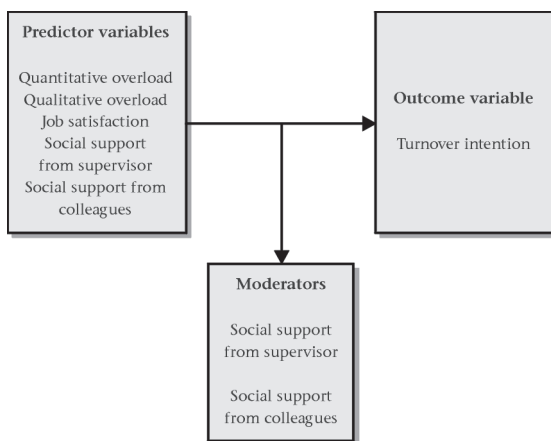


Figure 1: The hypothesised model

RESEARCH DESIGN

Research approach

A survey was used to gather data on the variables of interest. Since the design is cross-sectional, the data can only be used to describe the current population as it stands now, where no causal attributions can be made from this data. However, this design provides a suitable avenue for exploring the relationships between the different variables (Kerlinger & Lee, 2000; Shaughnessy & Zechmeister, 1997).

Research Method

Participants and sampling procedure

A random sample was taken from a South African mining company. Two hundred and fifty individuals were targeted, of which 206 usable questionnaires were returned ($n = 206$, response rate = 82,4%). The total population of managers (N) equals 644, thus, 31,99% of the total population was sampled). Individuals on Paterson grading E-band to C-Upper (middle managers) were part of the sample. The sample consisted mostly of males (91,7%), which is a representation of the gender spread of the population in the mining company, where males represent 95% of the total population. More than half of the participants (69,4%) were Afrikaans-speaking, and most of the participants (73,7%) have at least completed high school or tertiary studies. Most participants (95,6%) are permanently employed, and nearly all the participants (99,5%) are employed full-time. The majority of participants were union members (83,0%). The average amount of years participants have been working for the organisation is 14,03 years ($SD = 9,00$ years). Participants' mean age was 35,08 years ($SD = 7,93$)

Participants received a questionnaire in a stamped questionnaire addressed to the researchers. The questionnaire was completed in the participant's own time, and returned by regular mail to the researchers. Alternatively, questionnaires were sealed in the envelope provided and returned to the human resources manager. In terms of ethical considerations, all participation was voluntary and anonymous.

Measuring instruments

The following questionnaires were used in the empirical study:

Quantitative role overload

Quantitative role overload was measured by a scale developed by Beehr et al. (1976). This scale consists of three items and measures the feeling of having too much to do in too little time (e.g. "I often have too much to do in my job"). The response alternatives range from 1 (disagree) to 5 (agree), where a high score represents a heavier workload. Beehr et al. (1976) report this scale as reliable, with a reliability of 0,56 by applying the Spearman-Brown prophecy formula to the median inter-item correlation.

Qualitative role overload was measured with a scale that consists of four items developed by Sverke et al. (1999), and captures the sense that the work is too difficult or demanding (e.g. "My work contains elements that are too demanding"). The response alternatives range from 1 (disagree) to 5 (agree), where a high score represents more difficult or demanding tasks. Sverke et al. (1999) reported satisfactory reliability for this scale at two different times in their longitudinal study (Chronbach's alpha coefficient Time 1 = 0,78, and Time 2 = 0,77).

Job satisfaction

Job satisfaction was measured with a scale developed by Hellgren, Sjöberg and Sverke (1997), based on the work of Brayfield and Rothe (1951). This scale consists of three items measuring satisfaction with the job (e.g. "I enjoy being at my job"). The response alternatives range from 1 (disagree) to 5 (agree), where a high score reflects satisfaction with the job. The reported Cronbach alpha coefficient for this scale is 0,86 (Hellgren et al., 1997).

Turnover intention

This scale, consisting of three items, was developed by Sjöberg and Sverke (2000), and measures the strength of the respondent's intentions to leave the present position (e.g. "I feel that I could leave this job"). The response alternatives range from 1 (disagree) to 5 (agree) and a high score reflects a strong intention to leave the job. The reported Cronbach alpha coefficient for this scale is 0,83 (Sjöberg & Sverke, 2000).

Social support

Social support was measured with a scale developed by Caplan, Cobb, French, Van Harrison and Pinneau (1975) and consists of six items that measures two factors based on the source of

the support – supervisor support (3 items, e.g. “I always receive help from my manager when difficulties in my work arise”) and colleague support (3 items, e.g. “When I encounter problems at work, there is always a co-worker to turn to”). The response scale ranged from 1 (disagree) to 5 (agree), where a higher score on either scale reflects a larger sense that support is available. This scale is often used to measure the variables of supervisor and colleague support, and generally performs well (Ganster, Fusilier & Mayes, 1986). Caplan et al. (1975) reported satisfactory reliability (Cronbach’s coefficient alpha) of these scales ranging from 0,73 to 0,83.

Compared to the guideline suggested by Nunnally and Bernstein (1994) for Cronbach’s coefficient alpha ($\alpha \geq 0,70$), we felt confident that these scales would perform well in the South African context.

Statistical analysis

The statistical analysis was carried out with the use of the SPSS for Windows version 14 package (SPSS, 2005). Cronbach’s alpha coefficients were used to assess the reliability of the measuring instruments (Clark & Watson, 1995). Descriptive statistics (i.e. means, standard deviations, skewness and kurtosis) and inferential statistics (i.e. correlations and regression analyses) were used to analyse the data. Results are regarded as significant if the p -values attained are smaller than 0,05, as this is the accepted cut-off for most behavioural science research (Christensen & Stoup, 1991). If the final p -values for correlations are statistically significant ($p \leq 0,05$) the practical significance (d -values) for the results was calculated. According to Cohen (1977), the following cut-off points are relevant for practical significance of correlations:

- $d \geq 0,30$ – practically significant (medium effect)
- $d \geq 0,50$ – practically significant (large effect)

The main and interactive effects of social support was tested using hierarchical multiple regression analysis. Firstly, quantitative and qualitative role overload were entered, followed by job satisfaction and thirdly social support. The reasoning here is that role overload presents a more focal characteristic of the work individuals may have to perform than their more distal responses (job satisfaction) to it. Social support presents the most distal aspect of work, being the interpersonal relationships between individuals performing similar jobs. The interaction terms created for social support with role overload and job satisfaction were entered in a fourth step, to test for the hypothesised moderating effect of social support in the relation of the previous variables to turnover intention. Following Aiken and West (1991), the means of variables used in interaction terms are set to zero, while their standard deviations are kept intact. Where a moderating effect is indicated, the relevant variables are dichotomised via a median-split, and graphically represented with a univariate general linear model.

RESULTS

Descriptive statistics, Cronbach’s alpha coefficients and product-moment correlations are reported in Table 1.

It is evident from Table 1 that most of the scales of the measuring instruments have relatively normal distributions, with skewness and kurtosis within the +1 and -1 range. Only turnover intention showed positive skewness and high kurtosis. Overall, the Cronbach alpha coefficients are acceptable, considering the $\alpha \geq 0,70$ guideline (Nunnally & Bernstein, 1994), although quantitative role overload shows a somewhat disappointing value (which may be attributed to a variety of factors, including the diversity of constructs being measured (Field, 2005, and the few items used to operationalise this construct). However,

considering that this is the first apparent study that used this scale in South Africa, it is retained for further analysis.

TABLE 1
DESCRIPTIVE STATISTICS, ALPHA COEFFICIENTS AND CORRELATIONS

	M	SD	Skew-ness	Kur-tosis	α	1	2	3	4	5
1. Qualitative Role Overload	8,59	1,95	-0,56	-0,17	0,77					
2. Quantitative Role Overload	9,87	2,69	-0,30	-0,03	0,59	0,75++				
3. Supervisor Support	7,76	2,82	-0,38	-0,84	0,91	-0,06*	-0,20			
4. Colleague Support	8,24	2,47	-0,41	-0,53	0,80	-0,03*	-0,10	0,42+		
5. Job Satisfaction	8,73	2,53	-0,69	-0,27	0,80	-0,07	-0,21	0,50++	0,26	
6. Turnover Intention	5,78	3,23	1,17†	3,25+	0,74	0,27	0,34†	-0,42+	-0,24	-0,65++

† High skewness and/or kurtosis

* $p \leq 0,05$ – statistically significant

+ $d > 0,30$ – practically significant (Medium effect)

++ $d > 0,50$ – practically significant (Large effect)

Pearson product-moment correlation coefficients were used to determine the strength of association between all the variables. However, for turnover intention, Spearman correlations were computed due to the variable’s positive skewness and high kurtosis. Qualitative role overload showed a negative and statistically significant correlation with both social support from supervisor and colleagues, but did not reach practical significance. Quantitative and qualitative role overload is practically significantly correlated with a large effect size, as could be expected due to the overlap of the constructs. Social support from supervisor showed a positive practically significant (medium effect) correlation with social support from colleagues and a negative correlation with turnover intention. The correlation between supervisor social support and expressed satisfaction with the job is also positively and practically significantly related, with a large effect. The association of job satisfaction with turnover intention is in the expected negative direction (large effect), with the correlation between quantitative role overload and turnover intention practically significant, with medium effect.

The results of the multiple regression analysis with turnover intention as dependent variable are given in Table 2. Quantitative and qualitative role overload were entered first, followed by job satisfaction and thirdly social support. The interaction terms created for social support with role overload and job satisfaction were entered in the fourth step.

Table 2 indicates that when only the role overload variables were considered, only quantitative role overload made a significant contribution to explaining the variance in turnover intention. Also, job satisfaction proved a very robust predictor of turnover intention in Step 2, explaining an additional 33% of the variance in turnover intention together with qualitative role overload. In Step 3, when considering the social support variables, no direct significant contribution could be established between the latter variables and turnover intention. In investigating the moderating effect of social support between role overload and job satisfaction on the one hand, and turnover intention on the other, only the interaction of qualitative role overload with social support from colleagues showed a significant effect. Next, the interaction was plotted to illustrate this finding. The interaction is demonstrated in Figure 2 below.

TABLE 2
MULTIPLE REGRESSION ANALYSES WITH TURNOVER INTENTION AS DEPENDENT VARIABLE

Model		Unstandardised Coefficients		Standardised Coefficients	t	p	F	R	R ²	ΔR ²
		Beta (β)	SE	Beta (β)						
1	Constant	5,80	0,22		26,53	0,00	9,33	0,29	0,09	0,09
	Quantitative Role Overload	0,31	0,12	0,26	2,50	0,01*				
	Qualitative Role Overload	0,08	0,17	0,05	0,44	0,66				
2	Constant	5,77	0,17		32,96	0,00	46,75	0,65	0,42	0,33
	Quantitative Role Overload	0,05	0,10	0,04	0,45	0,65				
	Qualitative Role Overload	0,28	0,14	0,17	1,98	0,05*				
	Job Satisfaction	-0,76	0,07	-0,60	-10,54	0,00*				
3	Constant	5,77	0,17		33,08	0,00	29,16	0,66	0,43	0,01
	Quantitative Role Overload	0,01	0,10	0,01	0,14	0,89				
	Qualitative Role Overload	0,30	0,14	0,18	2,18	0,03*				
	Job Satisfaction	-0,68	0,08	-0,54	-8,55	0,00*				
	Social Support from Colleagues	-0,06	0,08	-0,05	-0,78	0,44				
	Social Support from Supervisor	-0,12	0,08	-0,10	-1,51	0,13				
4	Constant	5,68	0,19		29,50	0,00	15,15	0,69	0,47	0,04
	Quantitative Role Overload	0,01	0,11	0,01	0,07	0,95				
	Qualitative Role Overload	0,33	0,14	0,20	2,35	0,02*				
	Job Satisfaction	-0,68	0,09	-0,54	-7,86	0,00*				
	Social Support from Colleagues	-0,08	0,08	-0,06	-0,91	0,37				
	Social Support from Supervisor	-0,10	0,08	-0,09	-1,30	0,20				
	Job Satisfaction*Social Support from Colleagues	-0,01	0,03	-0,02	-0,41	0,68				
	Job Satisfaction*Social Support from Supervisor	0,01	0,03	0,02	0,25	0,80				
	Qualitative Role Overload*Social Support from Colleagues	-0,14	0,06	-0,23	-2,51	0,01*				
	Qualitative Role Overload*Social Support from Supervisor	0,09	0,05	0,17	1,80	0,07				
	Quantitative Role Overload*Social Support from Colleagues	0,02	0,04	0,05	0,48	0,63				
Quantitative Role Overload*Social Support from Colleagues	-0,06	0,04	-0,16	-1,67	0,10					

*p < 0,05

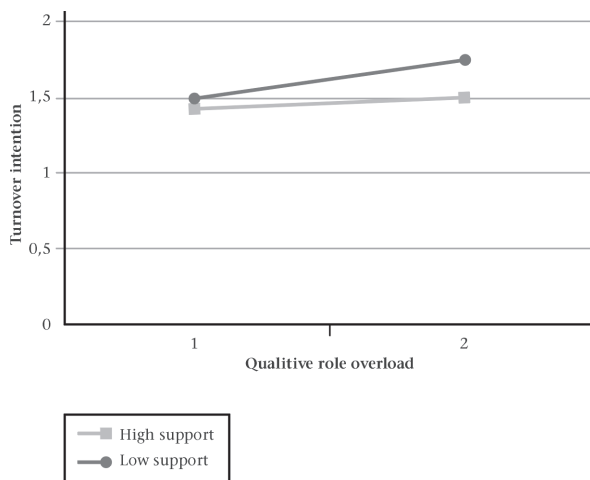


Figure 2: Interaction of Collegial Support with Qualitative Role Overload in relation to Turnover Intention.

Figure 2 shows that when qualitative role overload is at a low level, employees who differ in terms of their perceptions of the amount of support they receive differ very little in terms of their turnover intentions. However, it can also be seen

that when employees' experience of qualitative role overload increases, those employees with low experiences of collegial support show an increase in their turnover intentions, when compared to those employees who experience high levels of collegial support. For those employees who perceive themselves as receiving high levels of collegial support, there is little difference in turnover intentions between the high and low qualitative role overload conditions.

DISCUSSION

The aim of the current study was firstly to investigate the relationships between role overload (quantitative and qualitative), job satisfaction, work-based social support and turnover intention. A further objective included investigating the moderating effect of social support on the relation between role overload and job satisfaction on the one hand, and turnover intention on the other. The results show that all the measuring instruments used in this study are reliable in terms of their use, except for the quantitative role overload dimension. Most of these measures have been taken from the international literature, and their reliability in the South African context presents a unique contribution.

Results indicate that employees experiencing quantitative role overload (the feeling that there is more work than time to accomplish it in), are also likely to experience qualitative role overload (feeling that the work requires skills, abilities and knowledge beyond that which the individual possesses). Of course, the distinction between a qualitative and quantitative dimension is somewhat theoretical, but given the different relations of the two constructs to the other variables in this study, both dimensions are necessary to enhance our understanding of the relations between these variables. Huber (1985) presents some further clarification for the found relationships, and relates it to the goals set for a specific job. The goal of a high volume of work (quantitative) or highly complex work tasks (qualitative) may be considered as somewhat irreconcilable. Yet, both relate to a condition that requires more from the individual (in either time or skill) than he or she possesses. Interestingly, when only the role overload variables were considered in predicting turnover intention, quantitative role overload was more significant than qualitative role overload. This may indicate problems with the dimension's instability, due to the lack of consistency. However, when considering additional variables of social support and job satisfaction, qualitative role overload proved a stronger predictor.

While social support from colleagues and supervisor were strongly correlated, it was only social support from the supervisor that was strongly related to job satisfaction. Positive perceptions of social support in the workplace, have been related to greater psychological well-being and job satisfaction (Limbert, 2004). This research differs from those of previous researchers (Ganster et al, 1986; Moyle, 1998) in the sense that support from colleagues was found to be more important than support from the supervisor. While the supervisor may be more influential in changing employees' experiences of role overload, he/she may also be likely the source of demands contributing to overload. As such, the direct colleague may be more instrumental in alleviating qualitative role overload by serving as a source of knowledge or giving advice in terms of practical know-how.

In terms of the negative association between job satisfaction and turnover intention, our findings are in line with that of the international literature (Van Dick et al., 2004). The size of the correlation also indicates that these two variables are strongly negatively correlated. In the final step of the regression analysis, qualitative role overload, job satisfaction and the noted moderating effect were the only significant predictors of turnover intention. This seems to suggest that having the right skills needed to perform the job is more important than the amount of work required to be done, especially when colleagues are supportive.

Kirmeyer and Dougherty (1988) confirmed a pure buffering effect of social support, which was not found here. However, it can be seen that for the low social support condition, turnover intentions do increase as qualitative role overload increases. Kirmeyer and Dougherty (1988) offered two explanations for the buffering effect of support. Firstly, feeling supported may aid the individual in displaying problem-focused coping in resolving their experienced stress, and secondly colleagues may act as an important emotional outlet for experienced frustrations of employees. Considering the correlations, it can also be seen that while qualitative role overload is more correlated to social support, quantitative role overload is more correlated to turnover intention and job satisfaction. Thus, while it may be more important for colleagues and supervisors to accurately estimate an individuals' ability in ensuring that the individual is not tasked with work which is beyond their ability, the individual may need a manageable workload to ensure a positive emotional relation to, and staying in, the job.

Recommendations and limitations

It was found that social support from colleagues served to influence the relation of employees' experiences of role overload to their turnover intentions. The organisation should guard

against overloading their employees by assigning tasks to them which are beyond their level of knowledge, skill or ability. In addition, job satisfaction seems to be the most robust predictor of turnover intention, thus the need to develop programmes to sensitise employees' to each other's needs may bear fruit in terms of enhancing the experience of job satisfaction and subsequently reducing employee turnover.

Although the results with international measuring instruments show promising results, the quantitative role overload scale did not reach adequate reliability. Granted that we were rather ambitious in using only three items to measure the quantitative role overload variable, future studies may include more items to increase the reliability of this measure. Future studies with larger samples may also investigate inter-item correlations in order to enhance the psychometric properties of this scale. The distinction between qualitative and quantitative role overload is warranted, and may abet our understanding of the role overload construct in general.

Given the nature of our sample (mostly Afrikaans-speaking males), the findings may be argued to be somewhat culture-specific. Yet, it also needs to be borne in mind that these typical middle-level employees are those most likely to experience the brunt of necessary affirmative action and employment equity policies. As such, they may be the employees in the organisation most likely to display turnover intentions, at a time when the transfer of their skills to a new generation of managers is highly needed.

Given the characteristics of the sample, although reflective of the nature of the organisation, it was also not deemed wise to include demographic variables as controls in the regression analysis. This presents a serious limitation, as turnover intention may also relate to factors such as level of education or income, gender or language group (as proxy for cultural grouping). A larger sample, more representative of both females and other language groups may yield different results.

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REFERENCES

- Aiken, L.S. & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications.
- Bainbridge, C. (1996). *Designing for change: A practical guide to business transformation*. Chichester, West Sussex: Wiley.
- Beehr, T. A. (1985). The role of social support in coping with organizational stress. In T.A. Beehr and R.S. Bhagat (Eds.), *Human stress and cognition in organizations: An integrated perspective*. New York: John Wiley & Sons.
- Beehr, T. A., King, L. A. & King, D. W. (1990). Social support and occupational stress: talking to supervisors. *Journal of Vocational Behavior*, 36, 61-81.
- Beehr, T. A., Walsh, J. T. & Taber, T. D. (1976). Relationship of stress to individually and organisationally valued states: Higher order needs as a moderator. *Journal of Applied Psychology*, 61, 41-47.
- Brayfield, A. H. & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35, 307-311.
- Brill, P.L. & Worth, R. (1997). *The four levers of corporate change*. New York: Amacom.
- Brough, P. & Frame, R. (2004). Predicting police job satisfaction and turnover intentions: The role of social support and police organisational variables. *New Zealand Journal of Psychology*, 33 (1), 8-16.
- Brown, G. & Harris, T. (1978). *Social origins of depression: A study of psychiatric disorders in women*. New York: Free Press.

- Busch, T. (1998). Disciplinary differences in job satisfaction, self-efficacy, goal commitment, and organisational commitment among faculty employees in Norwegian colleges: An empirical assessment of indicators of performance. *Quality in Higher Education*, 4 (2), 137-157.
- Buunk, B.P. & Verhoeven, K. (1991). Companionship and support at work: A micro-analysis of the stress-reducing features of social interaction. *Basic and Applied Social Psychology*, 12, 243-258.
- Caplan, R.D., Cobb, S., French, J.R.P., Van Harrison, R. & Pinneau, S.R. (1975). *Job demands and worker health: Main effects and occupational differences*. Washington, DC: United States Department of Health, Education and Welfare.
- Christensen, L.B. & Stoup, C.M. (1991). *Introduction to statistics for the social and behavioural sciences* (2nd ed.). Pacific Grove, CA: Brooks/Cole.
- Clark, A. & Oswald, A. (1996). Satisfaction and comparison income. *Journal of Public Economics*, 61, 359-381.
- Clark, L.A. & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309-319.
- Cohen, J. (1977). *Statistical power analysis for the behavioral sciences* (Rev. ed.). Orlando, CA: Academic Press.
- Cohen, S. & Wills, T.A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.
- Coverman, S. (2001). Role overload, role conflict, and stress: Addressing consequences of multiple role demands. *Social Forces*, 67 (4), 965-982.
- Eisenberger, R., Stinglahamber, F., Vandenberghe, C., Sucharski, I.L. & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, 87, 565-573.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London: SAGE Publications.
- French, J.R.P. (1989). *Organizational stress and individual strain: The failure of success*. New York: Amacom.
- Furnham, A. & Walsh, J. (1991). Consequences of person-organisation incongruence: Absenteeism, frustration, and stress. *The Journal of Social Psychology*, 31, 187-204.
- Ganster, C.C., Fusilier, M.R. & Mayes, B.T. (1986). Role of social support in the experience of stress at work. *Journal of Applied Psychology*, 71, 102-110.
- Grogan, J. (2000). *Workplace law* (5th ed.). Kenwyn: Juta.
- Hatton, C. & Emerson, E. (1993). Organizational predictors of staff stress, satisfaction and intended turnover in a service for people with multiple disabilities. *Mental Retardation*, 31, 388-395.
- Hellgren, J., Sjöberg, A. & Sverke, M. (1997). Intention to quit: Effects of job satisfaction and job perceptions. In F. Avallone, J. Arnold & K. de Witte (Eds.), *Feelings work in Europe* (pp. 415-423). Milano: Guerini.
- Hom, P.W. & Kinichi, A.J. (2001). Toward a greater understanding of how dissatisfaction drives employee turnover. *Academy of Management Journal*, 44, 975-987.
- House, J.S. (1981). *Work stress and social support*. Reading, MA: Addison-Wesley.
- Huber, V.L. (1985). Effects of goal setting, and strategy on performance of a heuristic task. *Journal of Applied Psychology*, 70, 492-504.
- Jones, C.A. (1989). *Perceptions of emotional support, stress, and strain among African-American human service workers*. Paper presented at the 21st Annual Conference of the National Association of Black Social Workers, Richmond, VA.
- Kerlinger, F.N. & Lee, H.B. (2000). *Foundations of behavioral research* (4th ed.). Fort Worth, TX: Harcourt College Publishers.
- Kessler, R.C. (1992). Perceived support and adjustment to stress: Methodological considerations. In H.O.F. Veiel & U. Baumann (Eds.), *The meaning and measurement of social support*. New York: Hemisphere.
- Kirk-Brown, A. (1999). *The relationship between work stressors, social support, and emotional exhaustion in female employees of the Queensland Police Service*. Paper presented at the Third Australian Industrial and Organisational Psychology Conference, Brisbane, Australia.
- Kirmeyer, S.L. & Dougherty, T.W. (1988). Work load, tension, and coping: Moderating effects of supervisor support. *Personnel Psychology*, 41, 125-139.
- Kirmeyer, S.L. (1990). Social support: Its relationship to observed communication with peers and superiors. *Academy of Management Journal*, 30, 138-151.
- LaRocco, J. M., House, J. S. & French, J. R. P., Jr. (1980). Social support, occupational stress and health. *Journal of Health and Social Behavior*, 21, 202-218.
- Lee, P.C.B. (2004). Social support and leaving intention among computer professionals. *Information and Management*, 41, 323-334.
- Lee, T.W. & Mowday, R.T. (1987). Voluntarily leaving the organization: An empirical investigation of Steers and Mowday's model of turnover. *Academy of Management Journal*, 30 (4), 721-743.
- Limbert, C. (2004). Psychological well-being and job satisfaction amongst military personnel on unaccompanied tours: The impact of perceived social support and coping strategies. *Military Psychology*, 16 (1), 37-51.
- Mayes, B.T. (1986). Role of social support in the experience of stress at work. *Journal of Applied Psychology*, 71, 102-110.
- McIntosh, N. J. (1991). Identification and investigation of properties of social support. *Journal of Organizational Behavior*, 12, 201-217.
- Mining Charter (2004). Broad-Based Socio Economic Empowerment Charter for the Mining Industry. Retrieved 29 May 2007 from the World Wide Web, available at: http://www.dme.gov.za/minerals/mining_charter.stm
- Moodie, T.D. (1994). *Going for gold: Men, mines and migration*. Los Angeles, CA: University of California.
- Moyle, P. (1998). Longitudinal influences of managerial support on employee well being. *Work and Stress*, 12, 29-49.
- Nunnally, J.C. & Bernstein, I.H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Shaughnessy, J.J. & Zechmeister, E.B. (1997). *Research methods in psychology* (4th ed.). New York: McGraw-Hill.
- Sjöberg, A. & Sverke, M. (2000). The interactive effect of job involvement and organizational commitment on job turnover revisited: A note on the mediating role of turnover intention. *Scandinavian Journal of Psychology*, 3, 247-252.
- Sloane, P.J. & Williams, H. (2000). Job satisfaction, comparison earnings and gender. *Labor*, 14, 473-502.
- South Africa. (1998). *Employment Equity Act nr. 55 of 1998*. Pretoria: Government Printers.
- SPSS (2005). *SPSS 14.0 for Windows*. Chicago, IL: SPSS Incorporated.
- Stotland, E. & Pendleton, M. (1989). Workload, stress, and strain among police officers. *Behavioral Medicine*, 15 (1), 5-17.
- Sverke, M., Hellgren, J. & ...hrming, J. (1999). Organisational restructuring and health care work: A quasi-experimental study. In P.M. le Blanc, M.C.W. Peeters, A. Bussing & W.B. Schaufeli (Eds.), *Organisational psychology and health care: European contributions* (pp. 15-32). Munchen, Germany: Rainier Hampp Verlag.
- Thompson, B.M. (2005). *Work based support, emotional exhaustion, and spillover of work stress to the family environment: A study of policewomen*. Melbourne, Australia: Latrobe University.
- Trevor, C.O. (2001). Interaction among actual ease of movement determinants and job satisfaction in the prediction of voluntary turnover. *Academy of Management Journal*, 44, 621-638.
- Van Dick, R., Christ, O., Stellmacher, J., Wagner, U., Ahlswede, O., Grubba, C., Hauptmeier, M., Hohfeld, C., Moltzen, K. & Tissington, P.A. (2004). Should I stay or should I go? Explaining turnover intentions with organizational identification and job satisfaction. *British Journal of Management*, 15, 351-360.
- Wells, J.S. (1989). Objective job conditions, social support and perceived stress among blue collar workers. *Journal of Occupational Behaviour*, 3, 79-94.