

Psychosocial Work Environment and Psychological Strain Among Banking Employees

Nurul Farhana Mohd Noordin⁺ and Siti Aisyah Panatik

Department of Human Resource Development

Faculty of Management

Universiti Teknologi Malaysia

Abstract Psychological strain received considerable research attention in the organizational stress research. The prevalence of psychological strain at the workplace is explained by various theoretical models of psychosocial work environment such as job demand-control model, job demand-resources model, and effort-reward imbalance model. This study aims to investigate the effect of psychosocial work environment on psychological strain among employees in banking sector. In banking sector, the employees' psychological strain is caused by unfeasible sales target, lower salaries, high workload and job insecurity. Thus, this study defines psychosocial work environment as the combination of social and psychological aspect at work. The researcher integrates the effort-reward imbalance model and the organizational justice model as the predictor of psychological strain. The target population for the present study is specifically the bank tellers in a development financial institution (DFI) and a commercial bank. The data was collected quantitatively by distributing questionnaires. This study is a preliminary study. Thus, only 150 respondents were involved in this study. The finding indicates that only reward and overcommitment significantly affect psychological strain. This finding shows the empirical evidence that the effect of psychosocial work environment on employees' health where psychosocial work environment affects psychological strain.

Keywords: effort-reward imbalance, organizational justice, psychological strain

1. Introduction

1.1 Research Overview

The banking sector around the world has grown beyond its major role as a supporter to the development of a country. This is unexceptional in Malaysia where the banks have to attract foreign investments, generate valued-added businesses and provide employment opportunities (Bank Negara Malaysia, 2013). Because of this development, bank employees are subjected to a high degree of work stress. High work stress is dysfunctional, and it has been one of the major reasons for job dissatisfaction, and poor work performances (Spector, 2007; Siti Aisyah Panatik, 2010). Therefore, this research aims to study the factors contributed to psychological strain in terms of their psychosocial work environment. Psychological strain is the reaction of work stress that is related to emotional distress (Idris, 2011).

The prevalence of psychological strain at the workplace is explained by various theoretical models of psychosocial work environment such as job demand-control model, job demand-resources model, and effort-reward imbalance model. In this research, the researcher investigates psychological strain by integrating the effort-reward imbalance model and organizational justice model to identify the psychosocial work environment. Effort-reward

⁺ Corresponding author. Tel.: + (60172112524)
E-mail address: (farhananoordin@gmail.com).

imbalance is defined as a failed reciprocity between high efforts spent at work and low occupational rewards received which cause a state of emotional distress (Siegrist et al., 2004). Meanwhile, organizational justice refers to the extent to which employees perceive the organization as being fair to them (Kenny & McIntyre, 2005).

The integration of the effort-reward imbalance model and the organizational justice model as predictor variables in this study captures a wider range of social context in the working environment. The ERI model covers the work contract that exists between the employers and their employees (Siegrist, 2009). The inequity of effort contributed by the employees and reward given by the employers violates the psychological contract between both parties. In addition to the ERI model, the organizational justice model is related to organizational procedure in dealing with the employees. The organizational procedure refers to the perceived quality of managerial process and interpersonal relationship in the organization (Loi et al., 2011).

In summary, this research intends to investigate the effect of psychosocial work environment on psychological strain among banking employees. The psychosocial work environment components have been extracted from the effort-reward imbalance model and organizational justice model. The three components from the effort-reward imbalance model are effort, reward and overcommitment, while the two components of organizational justice model are procedural justice and interactional justice.

1.2 Research Objective

The objective to be achieved in this research is to identify the effect of psychosocial work environment (i.e. effort, reward, overcommitment, procedural justice and interactional justice) on psychological strain among banking employees.

2. Literature Review

2.1 Effort-reward Imbalance (ERI) Model

Effort reward imbalance is one of the models that explain psychosocial work environment leads to adverse employee's health outcomes. The original version of the ERI model was introduced by Siegrist *et al.* (1996). In 1999, Siegrist had modified the model. Basically, the ERI model refers to the reciprocity concept of social exchange theory. This model postulates that effort spent by the employees at work should be exchanged with adequate rewards. A failed reciprocity between high effort spent and low reward received will then lead to negative effect on employee's health and well-being. Besides effort and reward at work, the ERI model highlights overcommitment as another component that affect employee's health and well-being.

Effort refers to demanding aspects of the work environment i.e. workload and other job demands. The employee expects adequate reward for their efforts. The rewards or also known as organizational gratifications are distributed in terms of three systems; i.e. money, esteem and job security/opportunity. Meanwhile, overcommitment has been defined as "a set of attitudes, behaviours and emotion that reflect excessive striving in combination with a strong desire to be approved of and esteemed" (Siegrist, 2001, p. 55). Overcommitted employees exaggerate their effort beyond what is needed in order to gain rewards.

Previous research has showed that effort, reward and overcommitment have direct effect towards psychological strain. High effort is found to have negative effect on mental distress where effort increased the score of psychological strain measured by general health questionnaire in a research conducted by Calnan et al., (2000). In addition, various rewards in terms of material, esteem and security lead poor psychological outcomes (Griffin et al., 2007; Van Vegchel et al., 2005). Previous research also shows that overcommitment affects psychological well-being negatively where higher level of overcommitment lead to depression, psychosomatic complaints and anxiety (Preckel *et al.*, 2007).

2.2 Organizational Justice

Another psychosocial determinant of employee health is organizational justice. Organizational justice refers to the extent to which employee perceive the organization is being fair to them. According to justice theory, an unfair treatment towards members leads to counter-productive behaviours in a group, including in an organization (Kenny & McIntyre, 2005). With the same ground, organizational justice theory suggests that the employees' perception of

the fairness in the organization will lead to undesired work outcomes. There are three types of justice namely distributive justice, procedural justice and interactional justice (Niehoff & Moorman, 1993).

The study of organizational justice is concerned with people's perceptions of fairness violations at work (Spector, 2007). This perception of unfairness creates stressful working environment and have previously found to be related to health risk factor. Previous studies report lower levels of justice to be associated with lower well-being, higher medically certified absence and increased psychological strain problems (Francis & Barling, 2005; Inoue *et al*, 2008; Tepper, 2001).

2.3 Psychological Strain

Psychological strain refers to either momentary or longer period of distressful affective states and emotion (Ganster, 2008). The example of the most prevalent psychological strain is headache and sleep difficulty. Psychological strain is an important construct to investigate employee's mental health (Sharma & Sharma, 2010). Psychological strain is one of the indicators of mental health and the accumulation of psychological strain will lead to severe mental health problems (Ganster, 2008). Anxiety, depression, sleep disturbances, absence due to psychological illness and other related psychiatric symptoms show the prevalence of mental health problems in the organization (Sharma & Sharma, 2010).

3. Methodology

This study utilized quantitative data collection method. Questionnaires were distributed to the employees who work as teller from two banks in Malaysia. One of the banks is local-based financial institution which is also known as the development financial institution (DFI), while the other one is a foreign-based bank. Since this is a preliminary study, the total number of respondents is smaller than the actual study. A total of 150 bank tellers involved in this research. A bank teller is the employee who confronts the customers in a bank branch. The instrument used to measure ERI and organizational justices were the Effort-reward Imbalance Questionnaire (Siegrist, 2004) and Organizational Justice Scale (Neihoff & Moorman, 1993) respectively. Meanwhile, psychological strain was measured by General Health Questionnaire (GHQ-12) that was developed by Goldberg and Huxley (1988). In this study, the reliability of ERI is 0.82, organizational justice is 0.94 and psychological strain is 0.77. Correlation and multiple regressions were performed using PASW 18 to analyze the data.

4. Results

In terms of the demographic profile of the respondents, the ages ranged from 22-52 years (mean = 33.2, SD = 6.4). 62.7% of the respondents were male. Most of the respondents were Muslim (97.3%), followed by Christian (4%), Hindu (3.3%), and Buddha (2%). Their marital status showed that 73.3% of them were married, 25.3% of them were single and 1.3% of them were divorced. In terms of education, 38.7% of them obtained SPM or STPM, 32.7% diploma, 26% bachelor degree, 0.7% master degree, 0.7% doctoral degree and 1.3% of them selected others. Most of the respondents recorded job tenure more than five years (56%), followed by three to five years tenure (18%), one to three years tenure (15.3%), and less than 1 year tenure (10.7%). In terms of salary, most of them received salary that ranged from RM4001 to RM5000 (46%), followed by RM3001 to RM4000 (31.3%), RM 1001 to RM2000 (16%), and more than RM5000 (6.7%).

Table 1 - Inter-correlation between the study variables (N=150)

Variables	Mean	SD	Effort	Reward	Overcommitment	Procedural Justice	Interactional Justice	Psychological Strain
Effort	3.30	1.00	-	-0.403**	0.623**	0.068	0.062	0.270**
Reward	3.75	0.55	-0.403**	-	0.347**	0.134	0.081	-0.210
Overcommitment	3.38	0.77	0.623**	0.347**	-	0.032	0.012	0.356**
Procedural Justice	3.67	0.74	0.068	0.134	0.032	-	0.812**	-0.205**
Interactional Justice	3.67	0.87	0.062	0.081	0.012	0.812**	-	-0.201**
Psychological Strain	2.78	0.62	0.270**	-0.210	0.356**	-0.205**	-0.201**	-

**Significant at $p < 0.01$

Table 1 demonstrates the relationships between the scale of the ERI questionnaire and the job outcomes variable. Based on the results in Table 1, respondents reported moderate mean scores of effort, reward, overcommitment, procedural justice and interactional justice. However, mean scores of psychological strain among respondents was considerably low. Besides that, it was found that both effort and overcommitment positively correlated with psychological strain ($r = 0.27, p < .01$ and $r = 0.36, p < .01$ respectively). Meanwhile, both procedural and interactional justice negatively correlated to psychological strain ($r = -0.21, p < .01$ and $r = -0.20, p < .01$ respectively).

Table 2 - Linear regression on psychological strain (N = 150)

Predictors	Psychological Strain	
	β	R^2
Effort	0.151	
Reward	-0.171**	
Overcommitment	0.326**	
Procedural Justice	-0.117	
Interactional Justice	-0.105	
R^2		0.205

**Significant at $p < 0.05$

Table 2 presents the finding of linear regression to assess the effect of ERI and organizational justice on psychological strain. Overall, the model explains that the five predictors contribute 20% to psychological strain. Out of the five predictors, only reward and overcommitment have significantly affected psychological strain. The strongest predictor of psychological strain was overcommitment ($\beta = 0.33, p < .005$), followed by reward ($\beta = -0.177, p < .05$).

5. Discussion and Conclusion

The aim of this study is to investigate the effect of psychosocial work environment on psychological strain through the effort-reward imbalance components and organizational justice components. The finding suggested that ERI exhibits a relationship and an effect on the bank tellers' psychological strain. The growing job context in financial sector contributes to greater job demands among the employees especially those who deal directly with the customers such as the bank tellers. Looking through each component of ERI, overcommitment showed a significant positive effect towards psychological strain. When facing with high job demand, employees with high overcommitment tend to exaggerate their effort (Siegrist, 2001). Overcommitted employees will keep thinking about their jobs even when they are out of office. This will result in poor health whether physically or psychologically (Silva & Barreto, 2010; Preckel *et al.*, 2007; Tsutsumi & Kawakami, 2004).

The significant negative effect of reward on psychological strain indicates that what the employees gain at work is important to keep a psychologically healthy employee. Recognition, adequate salary, promotion opportunity and job security are crucial to survive in this globalization era (Kivimaki et al., 2007). Poor reward received by the employees will affect them mentally and psychologically such as depression, anxiety and psychosomatic illness (Griffin et al., 2007; Van Vegchel et al., 2005). This is true especially after they have to deal with difficult customers (Silva & Barreto, 2010).

Meanwhile, effort did not significantly affect psychological strain. A possible explanation for this finding is the use of three-items measure of effort. Previously, many studies investigated effort using five to six items (e.g. Siegrist et al., 2004, Silva & Barreto, 2010, Silva & Barreto, 2012). As stated before, this is a preliminary study. The three-items of effort are adequate to measure effort in the actual study since the actual study involves greater size of respondents. The three-items of effort measure are more suitable and applicable to a larger group of respondents (Siegrist, 2014).

Both organizational justice components also did not affect psychological strain significantly. The speculation of this finding is perhaps procedural and interactional justices are not considered a problem that may disrupt a bank teller's psychological health. However, previous research has found significant negative effect of procedural justice and interactional justice on psychological strain (Francis & Barling, 2005; Tepper, 2001).

In conclusion, this study provides insight on the ERI and organizational justice components as the psychosocial work environment that affects psychological strain; specifically among bank tellers in Malaysian setting. The limitation of this study is the findings that have been obtained by cross-sectional data collection. Therefore, this study could not investigate the long term effect of these predictors on psychological strain. Besides that, the lesser number of respondents in this preliminary study might lead to different findings than the actual study. The study will be continued with the larger size of respondents in the actual study. Despite these limitations, this study provides information to the banking institution to maintain the level of psychological strain by managing the employees' reward system. A suggestion for future research is to conduct a longitudinal research on the same topic. Moreover, more research should be conducted to investigate employee's psychological strain resulted from different types of psychosocial work environment.

6. References

- Bank Negara Malaysia (2013), Financial Sector Development. [Online] Available at <http://www.bnm.gov.my/index.php> (December 30, 2013)
- Calnan, M., Wainwright, D., & Almond, S. (2000). Job strain effort–reward imbalance and mental distress: A study of occupations in general medical practice. *Work and Stress*, 14, 297–311.
- Ganster, D. C. (2008). Measurement challenges for studying work-related stressors and strains. *Human Resource Management Review*, 18, 12.
- Idris, M. K. (2011). Over time effects of role stress on psychological strain among Malaysian public university academics. *International Journal of Business and Social Science*, 2, 154-161.
- Inoue, A., Kawakami, N., Ishizak, M., Shimazu, A., Tsuchiya, M., Tabata, M., et al. (2008). Organizational justice, psychological distress, and work engagement in Japanese workers. *International Archives of Occupational and Environmental Health*, 83, 29-38.
- Francis, L., & Barling, J. (2005). Organizational injustice and psychological strain. *Canadian Journal of Behavioural Science*, 37(4), 250-261.
- Goldberg, D., & Williams, P. (1988). GHQ: A user's guide to the General Health Questionnaire. Windsor: NFER/Nelson, Windsor
- Griffin, J. M., Greiner, B. A., Stansfeld, S. A., & Marmot, M. (2007). The effect of self-reported and observed job conditions on depression and anxiety symptoms: A comparison of theoretical models. *Journal of Occupational Health Psychology*, 12(4), 334 –349
- Kenny, D., & McIntyre, D. (2005). Constructions of occupational stress: nuisances, nuances or novelties. In Alexander-Stamatios, G. Antonio & C. L. Cooper (Eds.), *Research Companion to Organizational Health Psychology*. United Kingdom: Cornwall
- Kivimäki, M., Ferrie, J. E., Brunner, E., Head, J., Shipley, M. J., Vahtera, J., et al. (2005). Justice at work and reduced risk of coronary heart disease among employees: The Whitehall II Study. *Archives of Internal Medicine*, 165(19), 2245-2251.

- Kivimäki, M., Honkonen, T., Wahlbeck, K., Elovainio, M., Pentti, J., Klaukka, T., et al. (2007). Organisational downsizing and increased use of psychotropic drugs among employees who remain in employment. *Journal of Epidemiol Community Health* 61, 154-158.
- Kivimäki, M., Vahtera, J., Elovainio, M., Virtanen, M., & Siegrist, J. (2007). Effort-reward imbalance, procedural injustice and relational injustice as psychosocial predictors of health: complementary or redundant models? *Occupational and Environmental Medicine*, 64(10), 659-665.
- Loi, R., Lam, L. W., & Chan, K. W. (2011). Coping with job insecurity: The role of procedural justice, ethical leadership and power distance orientation. *Journal of Business Ethics*.
- Niehoff, B.P. and Moorman, R.H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal*, 36: 527-556.
- Preckel, D., Meinel, M., Kudielka, B. M., Haug, H. J., & Fischer, J. E. (2007). Effort-reward-imbalance, overcommitment and self-reported health: Is it the interaction that matters. *Journal of Occupational and Organizational Psychology*, 80, 91-107.
- Sharma, S., & Sharma, M. (2010). Globalization, threatened identities, coping and well-being. *Psychological Studies*, 55(4), 313-322.
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1(1), 27-41.
- Siegrist, J. (2001). A theory of occupational stress. In J. Dunham (Ed.), *Stress in the Workplace, Past, Present and Future*. London: Whurr Publishers.
- Siegrist, J. (1999). Occupational health and public health in Germany. In P. M. L. Blanc, M. C. W. Peeters, A. Bussing & W. B. Schaufeli (Eds.), *Organizational Psychology and Health Care* (pp. 35-44). Munchen: Rainer Hampp Verlag.
- Siegrist, J. (2009). Unfair exchange and health: Social bases of stress-related diseases. *Social Theory and Health*, 7(4), 305-317.
- Siegrist, J., & Peter, R. (1996). Threat to occupational status control and cardiovascular risk. *Israel Journal of Medical Sciences*, 32, 179-184.
- Siegrist, J., Li, J., & Montano, D. (2014). Psychometric properties of the effort-reward imbalance questionnaire. [Online] Available at http://www.uniklinik-duesseldorf.de/fileadmin/Datenpool/einrichtungen/institut_fuer_medizinische_soziologie_id54/ERI/PsychometricProperties.pdf (June 31, 2014)
- Siegrist, J., Starke, D., Chandola, T., Godin, I., Marmot, M., Niedhammer, I., et al. (2004). The measurement of effort-reward imbalance at work: European comparisons. *Social Science and Medicine*, 58(8), 1483-1499.
- Silva, L. S., & Barreto, S. M. (2010). Adverse psychosocial working conditions and minor psychiatric disorders among bank workers. *BMC Public Health*, 10:686
- Silva, L. S., & Barreto, S. M. (2012). Stressful working conditions and poor self-rated health among financial services employees. *Rev Saúde Pública*, 46(3):407-16
- Siti Aisyah Panatik. (2010). Impact of work design on psychological work reactions and job performance among technical workers: A longitudinal study in Malaysia. The University of Waikato, Hamilton, New Zealand
- Spector, P. E. (2007). *Industrial and organizational behaviour*. United States of America: John Wiley & Sons.
- Tepper, B. J. (2001). Health consequences of organizational injustice: Tests of main and interactive effects. *Organizational Behavior and Human Decision Processes*, 86, 197-215.
- Tsutsumi, A., & Kawakami, N. (2004). A review of empirical studies on the model of effort-reward imbalance at work: Reducing occupational stress by implementing a new theory. *Social Science and Medicine*, 59, 2335-2359.
- Van Vegchel, N., De Jonge, J., Bosma, H., & Schaufeli, W. (2005). Reviewing the effort-reward imbalance model: Drawing up the balance of 45 empirical studies. *Social Science and Medicine*, 60(5), 1117-1131.