Role Ambiguity, Role Conflict, the Role of Job Insecurity as Mediator toward Job Stress among Malay Academic Staff: A SEM Analysis

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Abstract: Globalization brings change in all aspect of human life, including in how job and organization operates. These changes create much strain and stress not only among employee at business organization, but also among university academic staff. These changes create ambiguity and conflict on how a task must be done. These condition interfere employees to perform better in their job. This study aims to examine the mediating effects of job insecurity on job stress among Malay academic staff. A total of 124 questionnaires were completed. The result of path analysis using structural equation modeling showed job insecurity is a mediator to job stress. Role ambiguity and role conflict has no direct effect to job stress, but has indirect effect by mediation of job insecurity toward job stress. The unique relationship between role ambiguity and role conflict by mediation of job insecurity to job stress will be discussed in detail below.

Key words: Job insecurity, job stress, Malay academic staff, role ambiguity, role conflict

INTRODUCTION

Stress is inseparable in every individual life aspects. Stress can be experienced by every people. Stress has negative implication if accumulated in individual life if there is no effective solution. This stress accumulation happened because person lacks of ability to handle and manage stress (Sulksky and Smith, 2005). Nevertheless, on the optimal level, stress has important ingredient to increase motivation and challenges a person to achieve better performance (Robbins, 2007).

In education organization, especially at higher education setting, many studies concluded that lecturer, staff or administration personnel reported from middle level to higher level of job stress (Assadi, 2003; Blix and Lee, 1991; Boscolo et al., 2008; Donders et al., 2003; De Nobile; Boscolo et al., 2008; Jing, 2008; Leung et al., 2000, De Nobile and McCormick, 2007). Ahsan et al. (2009) stated that the number of universities in Malaysia has increase tremendously for the past few years. Due to the increasing number of universities in Malaysia, university academic staff may face more problems in their job as the management is facing competitive pressure from other universities. This may causes academic staffs to face plenty of stress and therefore affect their satisfaction and even their physical or mental health.

The purpose of study is to examine whether job insecurity has a central role to mediate the effect of role ambiguity and role conflict toward job stress. It could be assumed that factors of job insecurity can become a mediator in relation to other factors affecting the job stress. In other word the effects of role stressors do not directly affect the emergence of job stress but mediated by job insecurity. Besides that, in present study researcher wants to test the assumption whether role stressors have direct relationship toward job stress.

LITERATURE REVIEW

Lazarus and Folkman (1984) defined “stress as any event in which environmental demands and/or internal demands (physiological/psychological) tax or exceed the adaptive resources of the individual, his or her tissue system, or the social system of which one is a part”. In this definition, stress viewed as an interactional process because it emphasizes stress as the process of interaction between stressors and how person responses the stressors. Several past studies used this definition as their guide in conducted the research.

In Malaysia several past studies confirmed the phenomena of job stress in educational setting. An example study by Huda et al. (2004) revealed that prevalence of job strain (referred to as ‘high job strain’) in University Sains Malaysia lecturers was 23.3%. A significantly higher proportion of clinicians 34.1% in University Sains Malaysia reported high job strain compared to non-clinicians 6.9%. The prevalence of job
Several factors were found associated with stress in the workplace. Two factors that have relationship with job stress are role ambiguity and role conflict. Greenhalgh and Rosenblatt (1984) developed a conceptual framework that the effect of role stressors did not directly relate to job stress but mediate by job insecurity. In Greenhalgh-Rosenblatt’s model there are three variables involved on occurring stress in workplace; those are antecedent variable, mediating variables and consequence variable. In present study role ambiguity and role conflict is antecedent variables, while job insecurity is mediating variable and job stress is consequence variable.

According to Rizzo et al. (1970) a role is most typically define as a set of expectations of the appropriate behavior that should be actualized by person which hold a specific position in a social structure. Role ambiguity refers to the degree of predictability one’s behavior responses and the clarity of behavior requirements (Glissmeyer et al., 2008; Shen, 2005). In order word, focal person feels that he or she was entrap in situation which the job obligation is unclear and not stated in straightforward manner.

While, Cooper et al. (2001) defined role conflict as reflects incompatible demands on the person (either within a single role or between multiple roles occupied by the individual) which can induce negative emotional reactions due to the perceived inability to be effective on the job. One form of role conflict in lecturer arises because lecturer has limited resources in terms of time and energy. The seemingly infinite demands from different roles overtax them (Greenhaus and Beutell, 1985).

If we look at job insecurity, many definitions were created to describe the term of it. Greenhalgh and Rosenblatt (1984) stated that job insecurity manifest in terms of threats to the job itself, unsecure about the progress of career in the future, feeling of powerlessness related to maintain job itself, and threats to valued job features. While, Hellgren et al. (1999), argued that there were two different aspects of job insecurity: quantitative and qualitative insecurity. Quantitative job insecurity is perceived threat or concern about continuity and future existence of the job. Qualitative job insecurity pertains to perceptions of potential loss of quality in the employment relationship, such as deterioration of working conditions, demotion, lack of career opportunities, decreasing salary development and concerns about person-organization fit in the future.

Study by Silla et al. (2008) suggested that job insecurity related to poor well-being, while no such association found for employability. Furthermore, employability moderates the relationship between job insecurity and life satisfaction, as expected. Specifically, the model accounts for 8% of the explained variance. However, this pattern of results is not replicated for psychological distress. Another study by Reisel et al. (2005) found that job insecurity related to customer performance, customer effectiveness, adaptiveness and related to esprit de corps negatively. Boya et al. (2008) concluded that qualitative and quantitative job insecurity significantly affected perceived anxiety and depression levels in nurses working in private hospitals. Chirumbolo and Areni (2005) study found that job insecurity negatively correlated with job performance and positively with absenteeism. While another study by Heaney, Israel and. House, (1994) found that chronic job insecurity has negative effects on job satisfaction and health.

However, all studies cited above were conducted in western culture. In present study, the phenomena of job insecurity and job stress are examined in Malay culture. According to Asma (1992) culturally, Malaysian workforce places an emphasis on loyalty, trust, cooperation, compassion, tolerance spirituality, being indirect when communicating bad news, maintaining harmonious relationships, preserving face, showing respect for hierarchy and elders and being polite. Almost Malay people are Muslim, so the values of Islam principals more influence Malays and shaped the code of conduct of many Malay people. The Malays (the ethnic group with the largest majority in Malaysia) are more collective orientation and they are also satisfied by doing work if they have opportunities to show and receive appropriate respect from superior, peers, and subordinates (Asma, 1992). According to Normah Mansor and Kennedy (2000) Malaysian leaders are not expected to be egoistic and self-serving, they discourage to be frankly in giving a feedback, especially negative feedback to other person. They should create and facilitate harmony in their group, avoided direct conflict and preserve "face" (jaga maruah) of other person.

Although some previous research has been conducted to examine the relationship between job insecurity with job stress (Ashford et al., 1989; Chirumbolo and Areni, 2005; Gaunt and Benjamin, 2007; Reisel et al., 2005; Silla et al., 2008), but nowadays study that considers the existence of mediating factors of job insecurity on job stress, especially in Malay culture is unclear. So further research is needed to explore whether the effect of role ambiguity and role conflict on job stress mediated by job insecurity.

**MATERIALS AND METHODS**

**Participants:** The study was conducted from December 2009 to May 2010 in one of Universities in Pahang Malaysia. A covering letter explaining the purpose of the study and providing assurance that the confidentiality of
responses would be respected accompanied each questionnaire. Two weeks later, we give the questionnaire and a follow-up letter to non-respondents stressing the value of the survey and the importance of their participation. Questionnaires were collected by researcher in faculty office. A total of 124 usable questionnaires were returned. Frequencies for the respondent’s demographic are presented in Table 1.

**Measure:** Role ambiguity and role conflict. Role Stressor Scale (RSS) was adapted from questionnaire was made by Rizzo *et al.* (1970) and revised by researcher. Internal consistency technique was used to test the validity and reliability of questionnaire. The result of role ambiguity Cronbach alpha is 0.810 with corrected item-total correlation range 0.504-0.800. The result of role conflict Cronbach alpha is 0.863 with corrected item-total correlation range 0.692-0.786.

**Job stress:** Job Stress Scale (JSS) that was adapted from Stress Indicators Scale (2007) and revised by researcher will measure job stress variable. The reliability and validity will be analyzed with internal consistency technique by Cronbach alpha. The result of JSS Cronbach’s alpha is 0.920, with corrected item-total correlation range 0.369-0.708.

**Job insecurity:** Job insecurity was measured by job insecurity questionnaire based on Hellgren *et al.* (1999) theory, and then researcher made several refinements on the items. The validity and reliability of questionnaire will be analyzed with internal consistency technique. The Cronbach alpha of job insecurity scale is 0.888 with corrected item-total correlation range 0.649-0.735.

**Data analysis:** Data were analyzed using the Statistical Program for Social Sciences (SPSS for window 15) and Amos 18. Several tests of the normality of data were performed. We checked the symmetry, looking at the mode, median and mean and then used the Shapiro-Wilks test and various graphical tests (box plot, stem and leaf and normal probability plot). Based on these several tests, a normal distribution data was achieved in our variables. Then structural equation model was used to examine the mediation relationship between job insecurity with job stress. The reliability means and standard deviations for all variables presented in Table 2.

**Structural equation modeling:** The next step in our investigation of job stress and job insecurity was to perform Structural Equation Modeling (SEM). Before SEM analysis performs, the continuous distributions for each of the variables should expect. For the purposes of SEM, a sample size of 63 for males and 61 for females may be considered fair. The latent constructs in the present study included job stress, role ambiguity, role conflict and job insecurity dimension as stated above.

A two-step modeling approach was adopted (Kline, 1998; Byrne, 2001). In the first step, a measurement model was tested to make sure that all latent constructs correlate with manifest variable. In step two, a structural analysis designed to test relationships among latent variables was examined. These relationships among variable will be tested only after ensuring that latent variables have measured adequately. This procedure will reduce the risk of misinterpretation and bias (Anderson and Gerbing, 1988; Ghozali, 2008). Moreover, Maximum Likelihood (ML) method of covariance structure analysis was used in this study. To examine overall model fit, the squared error of approximation (RMSEA), chi-square/degree of freedom (CMIN/DF), Tucker-Lewis Index (TLI) and Normed Fit Index (NFI) will be used. Satisfactory model fit is indicated by RMSEA values less than or equal to 0.08 and by TLI and NFI values greater than or equal to 0.90. Moreover, CMIN/DF values less than or equal to 5 is adequately reasonable for a model (Ghozali, 2008; Byrne, 2001).

The result of measurement model of job stress, job insecurity, role ambiguity and role conflict has a satisfactory fit model. Through SEM analysis job stress dimension obtained satisfactory result with \( p = 0.152, \text{NFI} = 0.900, \text{TLI} = 0.982 \text{and RMSEA} = 0.033 \). The same result is obtained for job insecurity with \( p = 0.108, \text{NFI} = 0.968, \text{TLI} = 0.971 \text{and RMSEA} = 0.075 \). While role ambiguity has \( p = 0.118, \text{NFI} = 0.985, \text{TLI} = 0.973 \text{and RMSEA} = 0.108 \) and role conflict has \( p = 0.971, \text{NFI} = 1.00, \text{TLI} = 1.02 \text{and RMSEA} = 0.000 \). Table 3 presented all the fit indices for measurement models.

After we tested the measurement model and confirmed the satisfactory result, then the structural models of the relationship between role ambiguity, role conflict and job insecurity with job stress dimension was tested.
RESULTS

The result of correlation analysis showed a relationship between role ambiguity, role conflict, job insecurity and job stress. Job insecurity has an association with job stress (r = 0.314 p<0.000). In addition job insecurity also has a relationship with role ambiguity (r = 0.209 p<0.05) and role conflict (r = 0.308 p<0.000), while role ambiguity has a non significant association with job stress (r = 0.196 p>0.05) and role conflict (r = 0.136 p>0.05). Then role conflict has an association with job stress (r = 0.247 p<0.01) (Table 4).

Role ambiguity and role conflict has an indirect effect on job stress, which is mediated by job insecurity, while, job insecurity has a direct positive relationship with job stress. Besides that, we also assumed that role ambiguity and role conflict has a direct relationship with job stress (Fig. 1).

The results through a structural equation model analysis shows that role ambiguity and role conflict has direct relationship to job insecurity (for role ambiguity with r = 0.171 p>0.05, for role conflict with r = 0.284 p<0.01). The indirect relationships of role ambiguity and role conflict toward job stress mediated by job insecurity is significant (for ambiguity p = 0.034 for role conflict p = 0.008), while direct effect of job insecurity to job stress is significant (r = 0.240 p<0.01). While direct effect of role ambiguity and role conflict toward job stress is not significant for role ambiguity r = 0.125 p>0.05, for role conflict with r = 0.156 p>0.05). The propose model has a satisfactory result with chi-square = 0.000, p = 0.992>0.05.

The Maximum Likelihood (ML) method of covariance structure analysis was used in this study. To examine overall model fit, the squared error of approximation (RMSEA), chi-square/degree of freedom (CMIN/DF), Tucker-Lewis Index (TLI) and normed fit index (NFI) will be used. Satisfactory model fit is indicated by RMSEA values less than or equal to .08 and by TLI and NFI values greater than or equal to 0.90. Moreover, CMIN/DF values less than or equal to 5 is adequately reasonable for a model (Ghozali, 2008; Byrne, 2001). The propose model has a satisfactory model fit with all criteria said above. Figure 2 described the final model of this study. For the model fit criteria is described in Table 5 for more detail.

Because the mediation relationships is significant, post-hoc probing analysis is needed to examine whether the association between predictor and outcome is significantly reduced when the mediator is introduced into
Table 5: Fit indices for structural models

<table>
<thead>
<tr>
<th>x</th>
<th>Prob</th>
<th>Cmin/DF</th>
<th>RMSEA</th>
<th>NFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>0.992</td>
<td>0.000</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Summary of standardized direct effect

<table>
<thead>
<tr>
<th></th>
<th>Job insecurity</th>
<th>Job stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role ambiguity</td>
<td>0.171</td>
<td>0.125</td>
</tr>
<tr>
<td>Role conflict</td>
<td>0.284</td>
<td>0.156</td>
</tr>
<tr>
<td>Job stress</td>
<td>0.240</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 7: Summary of Post hoc analysis using bootstrap for indirect effect

<table>
<thead>
<tr>
<th>Sig</th>
<th>Role conflict</th>
<th>Role conflict</th>
<th>Two-tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job stress</td>
<td>0.009</td>
<td>0.100</td>
<td>0.035*</td>
</tr>
<tr>
<td></td>
<td>0.026</td>
<td>0.111</td>
<td>0.008**</td>
</tr>
</tbody>
</table>

Significantly greater (p<0.05); Note: *: p<0.05; **: p<0.01

the model. According to Holmbeck (2002) conducting post hoc analyses of mediation is important because it prevents the investigator from drawing false positive or false negative conclusions about the relationships among the variables. It is important to keep in mind that the “drop to non-significant” criterion is flawed and may result in incorrect conclusions about the data. Holmbeck (2002) stated that false negative conclusions may be due to limited power or poor reliability of measures (Type II errors), of course. But both false negatives and false positives can be a result of the “drop to non significance” criterion. This strategy assumes that there is mediation when the A-C relationship drops from significance to non significance with the addition of the mediator. This is a flawed strategy, however, because it is possible that no mediation is present even when the relationship changes from significant to non significant. Moreover, it is also possible that mediation has occurred even when there is no drop to non-significance.

Bootstrapping method was used to examine post-hoc probing analysis of mediation. The result is the association between predictor and outcome is significantly reduced when the mediator is introduced into the model. In Table 7 depicted the result of probing analysis in detail.

Role ambiguity has a lower-bounds indirect effect 0.009 and upper-bounds 0.0100 with p<0.05. This indicates that role ambiguity has a significant indirect effect to job stress. While, role conflict has a lower-bounds 0.026 and upper-bounds 0.111 with p<0.05. This indicates too that role conflict has a significant indirect effect to job stress.

DISCUSSION

The result shows that the existence of mediating relationship between role ambiguity and role conflict with job insecurity is significant. While, there are non-significant direct relationship between role ambiguity and role conflict toward job stress. This suggests that the role of job insecurity is very important in the organization. The logical explanation is as follows, when the level of role ambiguity and role conflict experienced by academic staff is high, then it will be increasing the insecurity feeling among them. The increasing of job insecurity at academic staff will be followed by the increasing of distress feeling. If these conditions continue then it will be increasing the incidence of job stress in the future.

Previous studies have been shown that job insecurity related to job attitudes such as satisfaction (Probst and Brubaker, 2001), organizational attitudes such as organizational commitment and trust and psychological and physical well-being outcomes (Hellgren and Sverke, 2003; Kivimaki et al., 2000) personal outcome (Driscoll and Beehr, 1994). A few studies have been identified additional work-related behaviors such as increased job search behavior (Adkins et al., 2001; Reisel and Banai, 2002) or safety (Probst and Brubaker, 2001).

Many past studies have been concluded that work stressor like job insecurity will cause unfavorable consequences for employees (Cheng et al., 2005). For example, job insecurity implies uncontrollability and feelings of powerlessness, which known to be related to poor well-being (De Witte, 1999). As Borg and Elizur (1992) noted, a causal relationship exists, with job insecurity causing various phenomenon, such as lower trust in management and not vice versa. While, Lee et al. (2004) described that during 4 years they found coronary heart disease deaths cases of Myocardial Infarction (MI) and 41 Coronary Heart Disease (CHD) deaths. After adjustment for a wide array of potential confounders, the relative risk of total CHD over 2 year follow-up was 1.35 (95% CI, 0.78-2.34) and 1.04 (95% CI, 0.69-1.57) over 4-year follow-up. Job insecurity appeared to significantly increase the risk of non-fatal MI in the short term.

As defined by Spector (1997), “role ambiguity is the degree of uncertainty the employee has about what his or her functions and responsibilities are”. According to this definition, every position in a structured organization should have a specified set of tasks or position responsibilities. Role ambiguity reflects the degree of employees’ uncertainty regarding the appropriate actions in performing job functions. Due to uncertain role expectation, employees feel that the situations they face are ambiguous. The ambiguous situations related to the accomplishment of their task will create the climate of anxiety, confusion and feel like there is no guideline that should be referred in completing tasks accurately and satisfactorily. Finally, employees will be dissatisfied with his role, experience anxiety, distort reality and thus perform less effectively (Rizzo et al., 1970). Those situations will be more detrimental when employees...
experienced a role conflict in their job. The ambiguous and conflicting situations will lead to the emergence of discomfort and insecurity, especially related to their job. Eventually, employees will experience job insecurity which then will influence on the increased of stress and strain at work. The increased of job stress on employees will raises negative outcome such as decreasing employee productivity, absenteeism, intention to leave and turnover.

CONCLUSION

The conclusion of this study is the hypothesis, which states the relationship between role ambiguity, role conflict with job stress that mediated by job insecurity is significant. In addition, role ambiguity and role conflict has not direct effect to job stress. Further research needs to include other variables such as study in the other cultural sample, or include the participant’s demographic variable in examining the mediation relationship between role ambiguity, role conflict and job insecurity with job stress.

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