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Moderating effects of employee gender and organizational tenure in competency-performance relationships

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This study investigates the moderating effect of two socio-demographic variables which are employee gender and organizational tenure in competency-performance relationship. Data was gathered from 210 Malaysian employees at the Department of Agriculture. To test the moderating effects, two hypotheses were raised and tested. Theoretical model and hypothesis in this study were tested using moderated multiple regression (MMR) analysis. Results revealed that there are no moderating effects for gender. In other word, gender did not moderate the relationship between competency and performance. However organizational tenure significantly affected the relationships between competency and performance; where by the relationship was stronger for longer tenured employees. Results would provide information for managers to improve the employees’ performance.

Key words: Competency, performance, gender, tenure, moderated multiple regressions.

INTRODUCTION

Job performance defined as actions, behavior and outcomes that an employee contributes to organizational goals (Viswesvaran and Ones, 2000). According to Ladebo and Awotunde (2007) however, job performance is the duties and responsibilities that are executed as part of an individual's job assignments. On the other hand, scholars defined the term “competency” from two different points of view. One is referring to organizational performance, and the other definition is referring to individuals’ attributes (Hoffman, 1999). While management strategists emphasize competencies as unique and firm, organizational psychologists are more concerned with developing individual competencies. The use of competencies has become common in human resource management (Wang and Chen, 2002; Rodriguez et al., 2002).

Armstrong (2003) stated that competencies are factors which contribute to high levels of individual and organizational performance. Although, the link between these two concepts; competency and performance is well established and competency correlated with performance, however recent studies have led to the belief that biographical factors also play a major role in competency–performance relationships. Demographic characteristics of individuals such as age, gender and organizational tenure have been considered important variables in psychological research (Cohen, 1993; Griffeth et al., 2000; Sturman, 2003). Previous studies have illustrated that there is a significant relationship between competency and performance. This relationship might be affected by variables such as gender and organizational tenure. Due to the fact that social competencies are considered essential to employees’ performance, in this study we decided to focus on gender and organizational tenure as two moderating variables of social competency–job performance relationships.

Relationships between social competency and job performance

Social competencies have been always important in the work place (Guzz and Shea, 1992). Researchers agree that sending and receiving of information is an indicator of social skill (Riggio, 1986). Ferris et al. (2001) stated that social skill is the capacity to adjust a person’s...
behavior to different situations and to effectively control the responses of others. Therefore, a socially skilled employee should be able to accurately read other individuals and understand different social situations. Because of this ability, it is believed that a socially skilled employee will be more successful on the job (Morgeson et al., 2005). Mohrman and Cohen (1995) reported that when employees work in teams, a number of interpersonal skills increase in importance. In fact one of the important individual difference variables that has been studied and being meaningful with regard to work performance is social competencies (Guion, 1998; Kilduff and Day, 1994; Van Velsor and Leslie, 1995; Tiraeyari and Uli, 2011). Social competencies have also shown its prediction in previous studies in relation to job performance and there is sufficient evidence for the contribution (Tiraeyari et al., 2010). Ferris et al. (2001) identified social skills as the single strongest predictor of performance. Results of investigation conducted by Payne (2005) indicated that high performing employees are more skilled at communicating empathy, adapting their communication, and managing interactions with others. Similar finding of another research showed in Figure 1 that social competency led to a good prediction of job performance (Riggon et al., 2000).

Gender and job performance

Gender often plays a significant role in affecting employee performance, performance ratings, and related human resource decisions (Sturman, 2003). The effect of gender on different outcomes is especially important in the work environment (Nelson and Burke, 2002). When job performance is assessed by supervisors and managers, ratings of male and female workers may be influenced by gender stereotyping leading to more negative evaluations of women's job related activities (Maurer and Taylor, 1994; Nieva and Gutek, 1989). Recent studies support the view that sex-role stereotypes still exist in the workplace (Goldman et al., 2006) and that they are likely to be associated with men receiving more favorable performance appraisals than women (Lyness and Heilman, 2006; Watkins et al., 2006).

$H_3$: There is a significant moderating effect of gender on the relationship between competency and performance.

Organizational tenure and job performance

Tenure is a demographic variable which plays a significant role in management and psychological research (Cohen, 1993; Griffeth et al., 2000). It is often believed that employees who remain in an organization for longer time period obtain more competency of their job, and therefore, perform at a higher level than employees with less tenure. Levinson et al. (1978) argued that people with different career and backgrounds pass through specific career stages characterized by different activities and psychological adjustments. According to this theory, it is assumed that individuals with high tenure will perform higher than those with low tenure. Sturman (2003) argued that organizational knowledge obtained through organizational tenure have unique positive effects on job performance. Cohen (1991) postulated that since employees accumulate relevant job experience as tenure increases, their performance also grow. In a recent meta-analysis of the relationship between organizational tenure and job performance, Ng and Feldman (2010) reported that organizational tenure would be favorably related to various forms of job performance. Their findings
generally confirmed that organizational tenure is favorably associated with performance. In fact, there are research efforts exploring the moderating impact of tenure in job-related associations (Bradley, 2007; Moser and Calais, 2007; Shirom et al., 2008; Wright and Bonett, 2002). This study attempts to identify organizational tenure as a possible moderator of the competency performance relationship.

H2: There is a significant moderating effect of organizational tenure on the relationship between competency and performance.

The objectives of the study are to determine the moderation role of gender and tenure on the relationship between competency and performance.

MATERIALS AND METHODS

The moderating effect of gender and tenure was analyzed using moderated multiple regression (MMR) analysis. Prior to conducting the MMR analysis, preliminary analyses were conducted to ensure that there was no violation of the assumptions of normality, linearity, homoscedasticity, and homogeneity of error variance. In this study, Equation 1 was used to represent the variables in the ordinary least-squares (OLS) model:

\[ Y = \beta_0 + \beta_1 X + \beta_2 Z + e \]  \hspace{1cm} (1)

To determine the presence of moderating effect, the OLS model was then compared with the MMR model which was represented by Equation 2:

\[ Y = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 X*Z + e \]  \hspace{1cm} (2)

where, \( Y = \) job performance, \( X = \) social competency, \( Z = \) hypothesized a grouping moderator (gender and tenure), \( X*Z = \) the product between the predictors (SC×G), (SC×T) \( \beta_0 = \) the intercept of the line-of-best-of-fit which represents the value of \( Y \) when \( X = 0 \), \( \beta_1 = \) the least-squares estimates of the population regression coefficient for \( X \), \( \beta_2 = \) the least-squares estimate of the population regression coefficient for \( Z \), \( \beta_3 = \) the sample-base least-squares estimates of the population regression coefficient for the product term, and \( e = \) the error term (Aguinis, 2004).

Quantitative data were collected through a researchers-developed questionnaire. The instrument contained eleven dimension of job performance in total 46 items that’s employees are supposed to perform in their current position. Social competencies consist of 15 items measuring employees’ ability to interact effectively with colleague, supervisor, and clients and to adjust their behavior to different situational demands. In this study, we define organizational tenure as the length of employment in the organization. The moderator variable (organizational tenure) was measured base on ordinal scale. Employees who have worked in the organization for a long period of time > 10 years of services consider as longer tenured employees and < 10 years of services as shorter tenured employees. The instrument pilot tested with 20 employees and the result of reliability for job performance were 0.96 and for social competencies 0.91. Sample was chosen with a technique called proportional sample allocation. Required sample size for this study was specified as 210. Since respondent spoke Bahasa Malaysia as their first language therefore all questionnaires and instructions were translated into Bahasa Malaysia.

RESULTS

Results of MMR analysis shows for Model 1 Table 1, \( R = .611^a, R^2 = .374 \) and \( [F (2, 207) = 61.772, p = .0001]. \) This \( R^2 \) means that 37.4% of the variance in job performance is explained by social competencies and age groups. The coefficient Table 2 shows that the resulting regression equation for Model 1 is as follow:

Predicted job performance = 4 +0.5 SC-0.3 G \hspace{1cm} (3)

Equation 3 shows that for 1 point increase in social competency score, job performance is predicted to increase by 0.5, given the gender is held constant. The regression coefficient associated with gender means that the difference in job performance increase among gender is 0.38, given that social competency is held constant.

Model 2 shows the results after the product term (SCxG) was included in the equation. As indicates in (Table 1) that the addition of the product term resulted in an \( R^2 \) change of .002, \( [F (1, 206) = .672, p < 0.01]. \) The results doesn’t support for the presence of a moderating effect.

In other word, the moderating effect of gender explains 0.2% of variance in the job performance increase above and beyond the variance explained by social competencies scores and gender. Thus, it can reasonably be concluded that hypothesis 1 is not supported.

The equation for Model 2 is as follows:

Predicted job performance = 5 +0.3SC-1.1G +0.1 SCx \hspace{1cm} (4)

We based the interpretation of the regression coefficient on the fact that we coded the binary moderated using the dummy coding system. The interpretation of the

<table>
<thead>
<tr>
<th>Table 1. Model summary.</th>
</tr>
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<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

^aPredictors: (Constant), gender, MD1D15; ^bPredictors: (Constant), gender, MD1D15, GSC; c. Dependent Variable: MP1P46.
Table 2. Coefficients.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>95.0% Confidence interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Lower bound</td>
</tr>
<tr>
<td>(Constant)</td>
<td>4.046</td>
<td>.450</td>
<td>0.550</td>
<td>8.991</td>
<td>0.000</td>
</tr>
<tr>
<td>1</td>
<td>MD1D15 gender</td>
<td>0.497</td>
<td>.051</td>
<td>0.550</td>
<td>9.758</td>
</tr>
<tr>
<td>2</td>
<td>MD1D15 GSC</td>
<td>0.373</td>
<td>0.159</td>
<td>0.413</td>
<td>2.339</td>
</tr>
</tbody>
</table>

Results of MMR analysis shows for Model 1 Table 3, R² = .588, R² change = .04, [F (1, 206) = .672, p < .01]. The coefficient Table 4 shows that for 1 point increase in social competency score, job performance is explained by social competencies and tenure. The coefficient Table 4 shows that the resulting regression equation for model 1 is as follow:

Predicted job performance = 4.97 + 0.37SC - 1.13 Male + 0.1 SCxG

Predicted job performance = 4.97 + 0.37SC - 1.13(0) + 0.1 (0)

Male employees predicted job performance = 4.97 + 0.37SC

Predicted job performance = 4.97 + 0.37SC - 1.13 Female + 0.1 SCxG

Predicted job performance = 4.97 + 0.37SC - 1.13(1) + 0.1 (1)

Female employees predicted job performance = 3.94 + 0.37SC

We used value of 1 standards deviation (SD) above and below the mean for social competencies. Mean score for a social competency is 7 and the SD is 1.03. By using the value of 8.03 (1 SD above the mean) and 5.97 (1 SD below the mean) in Equations 5 and 6 yield the graph shown in Figure 2.

Table 3. Model summary.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Std. error of the estimate</th>
<th>R square change</th>
<th>F change</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
<th>F change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.588²</td>
<td>0.346</td>
<td>0.340</td>
<td>0.76198</td>
<td>0.346</td>
<td>55.679</td>
<td>2</td>
<td>207</td>
<td>0.000</td>
<td>7.17</td>
</tr>
<tr>
<td>2</td>
<td>0.622²</td>
<td>0.386</td>
<td>0.377</td>
<td>0.73995</td>
<td>0.040</td>
<td>12.939</td>
<td>1</td>
<td>206</td>
<td>0.000</td>
<td>6.91</td>
</tr>
</tbody>
</table>

Equation 7 shows that for 1 point increase in social competency score, job performance is predicted to increase by 0.5, given that gender is held constant. The regression coefficient associated with tenure means that the difference in job performance increase among tenured is 0.3, given that social competency is held constant.

Model 2 shows the results after the product term (SCxT) was included in the equation. As indicates in Table 3 that the addition of the product term resulted in an R² change of .04, [F (1, 206) = .672, p < .01]. The results support the presence of a moderating effect. In other word, the moderating effect of service tenure explains 4% of variance in the job performance increase above and beyond the variance explained by social competencies scores and tenure. Thus, it can reasonably
be concluded that hypothesis 2 is supported. The equation for Model 2 is as follows:

\[ \text{Predicted job performance} = 5 + 0.3 \text{SC} - 1.1 \text{G} + 0.1 \text{SCxT} \]

\[ (8) \]

We based the interpretation of the regression coefficient on the fact that we coded the binary moderated using the dummy coding system. The interpretation of the regression coefficient for the product term in Equation 8 is that there is 0.1 differences between the slope of job performance increase on social competency between the long tenured employees (coded as 0) and the short tenured employees (coded as 1). In other words the slope regressing job performance on social competencies is less steep for shorter tenured employees as compared to longer tenured employees.

\[ \text{Predicted job performance} = 0.53 + 0.89 \text{SC} + 1.14 \text{T} - 0.14 \text{SCxT} \]

\[ (9) \]

Long tenured employees predicted job performance = 0.53 + 0.89(SC) - 0.14 SCxTN

Predicted job performance = 0.53 + .89SC +1.14(long tenured -0.14 SCxTN

\[ (10) \]

Short tenured employees predicted job performance = 1.53 + 0.89(SC) - 0.14 SCxTN

We used value of 1 SD above and below the mean for social competencies. Mean score for social competency is 7 and the SD is 1.03. By using the value of 8.03 (1 SD above the mean) and 5.97(1 SD below the mean) in Equations 9 and 10 yield the graph shown in Figure 3.

\[ Y = 0.53 + (0.89)5.97=5.84 \]

\[ Y = 0.53 + (0.89)8.03 =7.67 \]

\[ Y=1.53+ (0.89)5.97=6.48 \]

\[ Y=1.53+ (0.89)8.03 = 8.67 \]
DISCUSSION

Contrary to our expectation, gender didn't moderate the relationship between social competencies and job performance. On the other hand, relationships between competency-performance are the same for male and female employees. Although competency has shown its prediction to performance, however, based on the findings of this study, organizational tenure played a significant role in moderating the relationship between social competencies and job performance. In other words, the relationship between social competencies and job performance is stronger for longer-tenured employees. This might be due to the fact that employees with longer tenure might bring qualities such as experience to the work. The significant moderating effects of organizational tenure highlight the fact that longer-tenured employees, those possessing social competencies will be better able to improve their overall job performance. Managers can use the finding of this study to improve their employees' job performance. As a result, longer-tenured employees likely are skilled at communicating empathy, adapting their communication, and managing interactions with others. These employees may be so valuable to the organization.  

REFERENCES