

*Full Length Research Paper*

# The moderating role of age groups on the relationship between social competencies and work performance

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**Although researches have shown that social competencies are related to work performance, relatively few studies have attempted to identify the moderating effect of biographical factors, which may affect the relationships between these two variables. This study examines the moderating effect of age groups on the relationship between social competencies and work performance. Data were gathered from 210 Malaysian employees at the Department of Agriculture. Theoretical model and hypothesis in this study were tested using Moderated Multiple Regression analysis. Results revealed that age groups (younger employees vs. older employees) significantly affected the relationship between social competencies and work performance among respondents; where the relationship was found stronger for older employees.**

**Key words:** Social competencies, work performance, age groups, moderated multiple regression.

## INTRODUCTION

### Social competencies and work performance

Majority of jobs involve some kind of social component. Social competencies have been always important in the work place (Guzz and Shea, 1992). Researchers agree that the basic sending and receiving of information is representative of social skill (Riggio, 1986). Ferris et al. (2001) stated that, "social skill reflects interpersonal perceptiveness and the capacity to adjust one's behavior to different situational demands and to effectively influence and control the responses of others" (p. 1076). Hence a socially skilled employee should be able to accurately read other individuals, adapt to and understand various social situations. Because of this social ability, it is believed that a socially skilled employee will be more successful on the job (Morgeson et al., 2005). Mohrman and Cohen (1995) suggested that when individuals work in teams, a number of interpersonally oriented skills increase in importance. In fact one of the importance individual difference variable 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). Social

competencies have also shown its prediction in previous studies in relations to work performance and there is sufficient evidence for the contribution. Ferris et al. (2001) identified social skills as the single strongest predictor of performance rating dimensions of task performance, job dedication, and interpersonal facilitation, as well as for an overall rating of performance. Similarly results of investigation conducted by Payne (2005) indicated that high performing employees were more skilled at communicating empathy, adapting their communication, and managing interactions with others than lower performing employees. Finding of a research conducted by Riggon et al. (2000) showed that Possession of social competence led to good prediction of work performance. Agricultural extension workers also need to be experts in communications skills as well as in science and technology. Vanclay and Lawrence (1995) suggested that more emphasis needs to be placed on enhancing social skills of agricultural extension workers to improve the impact of extension work. Similarly, Texas A&M university system (2005) asserts that social skills of agricultural extension workers such as establishing effective working relationships with co-workers, colleagues, supervisors, volunteers, clients, key community leaders were important in determining their work performance. Results of study conducted by Tiraieyari et al. (2010) showed that social competencies influence agricultural extension workers' performance. Thach et al.

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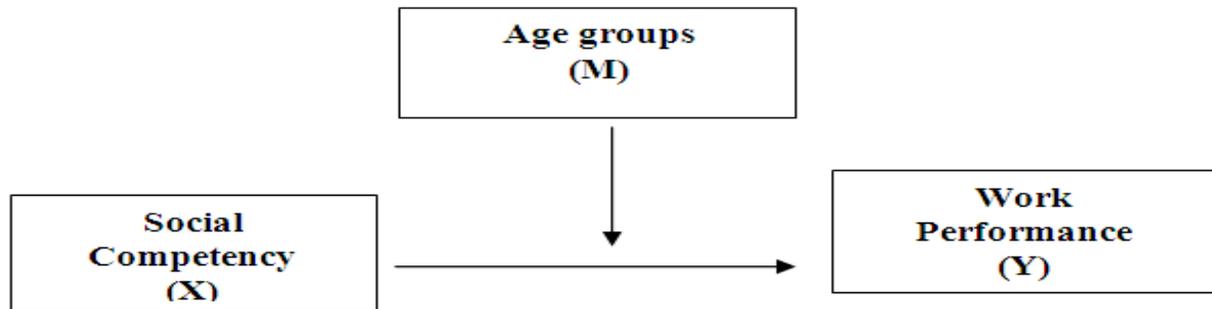


Figure 1. Research framework.

(2008) reported high correlation between social skill of agricultural extension workers and work performance. Furthermore, they indicated that among all individual factors, social skills are the strongest contributor in explaining the extension workers' performance. According to FAO (2006) certain tasks including extension work need more social skills than others. Agricultural extension workers may need to interview clients and this does not only involve the verbal fluency of an agricultural extension worker but such skills as how well he/she approaches the client and how closely identifies the client. It is not the content of the interview but how the interview was conducted. These skills are part of social competency that agricultural extension workers must possess to do their job effectively. Communication skills also have a large component of social competencies. In order to perform effectively, an agricultural extension worker should be able to demonstrate social skills during the training of clients.

### Age and work performance

Recent studies have led to the belief that biographical factors play a major role in work performance. The general belief is that performance decrease with age, although the older workers bring positive qualities like experience to the job. The average age of employees are getting higher with increasing numbers of middle-aged and older workers employed in many different jobs (Fullerton, 1995; Johnston and Packer, 1987). Hence, it is important to know whether work performance is higher or lower for older employees in comparison with the younger. Some reviews of research on this issue have concluded no relationship between age and work performance (Salthouse and Maurer, 1996; Warr and Pennington, 1994). However, some reviews have generally concluded that the effects of age on work performance are slight (Davies et al., 1991; Warr and Pennington, 1994). Long and Swartzelov (2007) reported a positive correlation between age of agricultural extension workers and work performance ( $r = 0.23$ ). While McEvoy and Cascio (1989) indicated that age and

productivity were unrelated ( $r = 0.07$ ). Curvilinear relationships between age and work performance have also been reported for salespeople (Kelleher and Quirk, 1973). Long and Swartzelov (2007) reported a positive correlation between age of agricultural extension workers and work performance ( $r = 0.23$ ).

As mentioned earlier previous studies have illustrated that there is a significant relationship between social competencies and work performance. This relationship will probably be affected by variable such as age of employees. In fact, the result of the study showed that age has an effect in the relationship between competency and performance (Kuppusamy and Anantharaman, 2008). However, there is no study found in literature that examined moderating effects of age on the relationship between social competencies and work performance among agricultural extension workers. Due to the fact that social competencies is considered essential to employees' performance especially for agricultural extension workers, in this study we decided to focus on one of work-related moderators (age group) as a moderating variable between social competencies and work performance.

The objective of the study is to determine the moderation role of age groups on the relationship between social competencies and work performance.

### Hypothesis

H<sub>1</sub>: There is a significant moderating effect of age groups on the relationship between social competencies and work performance.

### MATERIALS AND METHODS

The moderating effect of age groups between social competencies and work performance was analyzed using moderated multiple regression (MMR) analysis (Figure 1). 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:

**Table 1.** Model summary.

Model summary									
Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics				
					R square change	F change	df1	df2	Sig. F change
1	0.593 <sup>a</sup>	0.351	0.345	34.91067	0.351	56.055	2	207	0.000
2	0.614 <sup>b</sup>	0.376	0.367	34.31138	0.025	8.294	1	206	0.004

a. Predictors: (Constant), age groups, social competencies; b. predictors: (Constant), age groups, social competencies; c. dependent variable: work performance.

**Table 2.** Coefficients.

Coefficients <sup>a</sup>								
Model		Unstandardized coefficients		Standardized coefficients	t	Sig.	95.0% confidence interval for B	
		B	Std. Error	Beta			Lower bound	Upper bound
1	Constant	145.596	18.621		7.819	0.000	108.885	182.308
	SOCIACOM	23.925	2.356	0.576	10.157	0.000	19.281	28.569
	AGEGRUP	6.743	5.012	0.076	1.345	0.180	-3.138	16.625
2	Constant	-16.020	59.027		-0.271	0.786	-132.393	100.354
	SOCIACOM	45.500	7.841	1.095	5.803	0.000	30.041	60.959
	AGEGRUP	109.021	35.854	1.233	3.041	0.003	38.334	179.708
	SCXAG	-13.561	4.709	-1.350	-2.880	0.004	-22.845	-4.277

a. Dependent variable: P1P46.

Equation 1 (OLS model):  $Y = \beta_0 + \beta_1X + \beta_2Z + e$

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

Equation 2 (MMR model):  $Y = \beta_0 + \beta_1X + \beta_2Z + \beta_3X*Z + e$

where, Y = work performance X = social competencies Z = hypothesized a grouping moderator (Age groups), X\*Z = the product between the predictors social competencies and age groups (SC\*AG),  $\beta_0$  = the intercept of the line-of-best-of-fit which represents the value of Y when X = 0,  $\beta_1$  = the least-squares estimate 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

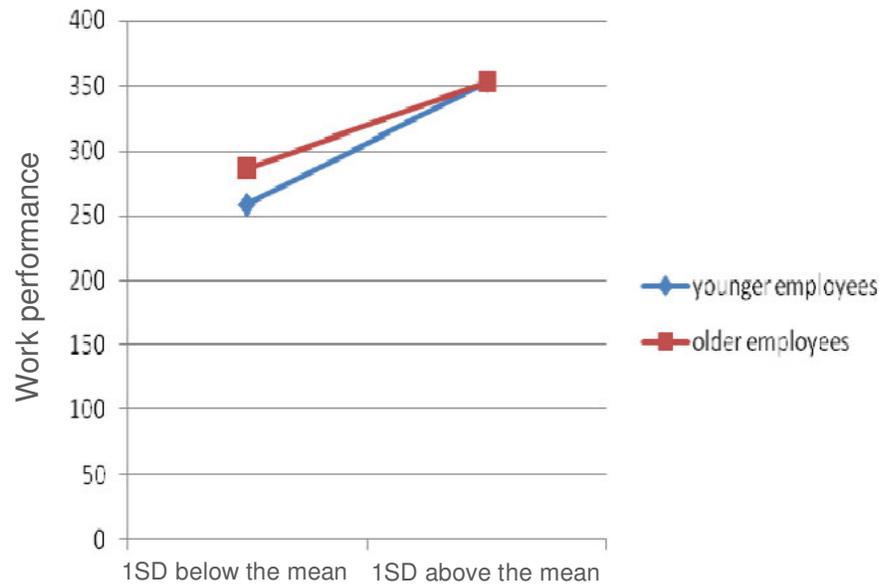
(Aguinis, 2004).

Quantitative data were collected through a researchers-developed questionnaire. The instrument contained eleven dimensions of job performance and in total 46 items, that agricultural extension workers 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. The moderator variable (Age group) was measured base on ordinal scale. Employees < 35 years old consider as younger employees and < 35 years old as older employees. The instrument pilot tested with 20 of employees and the result of reliability for work performance were 0.96 and for social competencies 0.91. In this study, a 10 semantic differential scale was used to measure the constructs. The instrument obtained the self-reported levels of variables on a 10 point scale that ranged from 1 for "very low" to 10 for "very high".

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 AND DISCUSSION**

Results of MMR analysis shows for Model 1 (Table 1), R = 0.593<sup>a</sup>, R<sup>2</sup> = 0.351 and [F (2, 207) = 56.055, p = 0.0001]. This R<sup>2</sup> means that 35.1% of the variance in work 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:



**Figure 2.** Slop for social competencies and work performance on age groups.

Equation 1: Predicted work performance =  $145.6 + 24SC + 6.8AG$

Equation 1 shows that for 1 point increase in social competency score, work performance is predicted to increase by 24, given the age groups is held constant. The regression coefficient associated with age groups means that the difference in work performance increase among age groups is 6.8, given that social competency is held constant.

Model 2 shows the results after the product term (SCXAG) was included in the equation. As indicates in (Table 1) that the addition of the product term resulted in an  $R^2$  change of .025, [ $F(1, 206) = 8.29, p < 0.01$ ]. The results support for the presence of a moderating effect. In other word, the moderating effect of age groups explains 25% of variance in the work performance increase above and beyond the variance explained by social competencies scores and age categories. Thus, it can reasonably be concluded that the hypothesis is supported.

The equation for Model 2 is as follows:

Equation 2: Predicted work performance =  $-16 + 46SC + 109AG - 13.6SC \times AG$

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 2 is that there is -13.6 differences between the slop of work performance increase on social competency between the younger employees (coded as 0) and the older employees (coded as 1). In other words the slope

regressing work performance on social competencies is less steep for younger employees as compared to older employees.

Predicted work performance =  $-16 + 46SC + 109AG - 13.6SC \times AG$

Predicted work performance =  $-16 + 46SC + 109(0) - 13.6(0)$

Equation 3: Younger employees predicted work performance =  $-16 + 46SC$

Predicted work performance =  $-16 + 46SC + 109AG - 13.6SC \times AG$

Predicted work performance =  $-16 + 46SC + 109(1) - 13.6SC(1)$

Equation 4: Older employees predicted work performance =  $93 + 32.4SC$

We used value of 1 standards deviation (SD) above and below the mean for social competencies. Mean score for social competencies 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) Equations 3 and 4 yield the graph shown in Figure 2:

$Y = -16 + 46(5.97) = 258.62, Y = -16 + 46(8.03) = 353.38.$

$Y = 93 + 32.4(5.97) = 286.42, Y = 93 + 32.4(8.03) = 353.172.$

## Conclusion

Although social competencies have shown its prediction in previous studies in relations to work performance, however, based on the findings of this study, age categories played significant role in moderating the relationship between social competencies and work performance. In other words the relationship between social competencies and work performance is stronger for older employees. This might be due to the fact that older employees bring positive qualities like experience to the work. The significant moderating effects of age categories highlight the fact that the general belief of decreasing performance with the age may not be true. This finding can be explained by the fact that social competencies comes with age, and older employees that posses social competencies will be better able to improve their overall work performance. Supervisors and managers at the department of agriculture can use the finding of this study to improve their employees' work performance.

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