

## Gender, Academic rank, Employment status, University type and Job stress among University Academic staff: a Comparison between Malaysia and Indonesia context

**Triantoro Safaria**

Department of Technology Management  
University Malaysia Pahang  
Faculty of Psychology  
Ahmad Dahlan University  
Yogyakarta, Indonesia

**Ahmad bin Othman**

Department of Technology Management  
University Malaysia Pahang  
Lebuh Raya Tun Razak, Gambang 26300, Pahang, Malaysia

**Muhammad Nubli Abdul Wahab**

Center of Modern Language and Human Science  
University Malaysia Pahang  
Lebuh Raya Tun Razak, Gambang 26300, Pahang, Malaysia

### Abstract

*The purpose of this study is to investigate the relationship between demographic variables with job stress among university academic staff. The demographic variables of this study are gender, academic rank, employment status, and university type. This study is a quantitative survey study that focused on comparison between Malaysia and Indonesia context. Data are collected from 343 universities academic staff from Pahang, Malaysia and 337 academic staff from Jogjakarta, Indonesia. The analysis of variance test (ANOVA) is used to test the study hypothesis in each nation. The results showed that gender, university type, and academic status was predictors of job stress in Pahang and Jogjakarta sample. Employment status had a significant effect on job stress just among Jogjakarta academic staffs, but not for Pahang academic staffs. This study is the first cross-cultural research that examines the effect of demographic variables on job stress among university academic staff in Pahang, Malaysia and Jogjakarta, Indonesia. Besides that, the study confirms existing theory and expands the applicability of work-related stressors in a cross national context.*

**Key words:** Cross culture study, gender, academic rank, employment status, university type, academic staff and job stress

### Introduction

Stress is an ingredient of life. Stress is inseparable in every individual life aspect. Stress can be experienced by every person. Stress has a negative implication when accumulated in person's life, if there is no effective solution. This stress accumulation happened because a person lacks of ability to handle and manage stress (Crampton., Hodge., & Mishra, 1995). In spite of that, the optimal stress will emit challenge and motivation for success (Spangenberg., & Theron , 2007; Robbins, 2003).

This day many organizations have been concerned about the rising costs of stressed employees. Stewart (1990) stated that the job stress-related costs for companies estimated between \$100 to \$300 billion per years. Crampton, Hodge, Mishra, & Price (1995) cited from several researchers concluded that the cost of job stress made major detrimental effect for many companies, including absenteeism, accidents, health care expenses, lower productivity, 75% to 90% of all visits to primary care physicians are caused by job stress. Furthermore, according to Cooper, Liukkonen, & Cartwright (Glendon, Clarke, & McKenna 2006) 60% to 80% of accidents are estimated to be due to employee stress.

Some studies have been investigated to quantify the impact of stress on the economy Gross Domestic Product. In Denmark's work related illness and absence are estimated to be 2.5% of GDP, in Norway 10% and in the European Union 5-10% due to job stress. The effect of illness absence in UK economy is estimated to be 12 billion pounds, 50% of which is estimated to be job stress related. In United State, it is estimated that 54% of illness absence is job stress related (Dollard, 2003).

Several studies have been identified the causes of job stress at teachers (Cox et al, 2000). Same finding has obtained from other studies in other countries. Ahsan, Abdullah, Gun Fie, & Shah Alam (2009) study found that there is a relationship between home-work interfaces, workload pressure, job role ambiguity, performance pressure with job stress. While, job stress negatively related to job satisfaction. Archibong, Bassey, & Effiom (2010) study found student behavior was the greatest source of stress to academic staff, and limitation funds for research were the highest source of stress. Another finding found that career development was one of stress source to academic staff. In their study also found that male and female academic staff perceived differently work-related stress level in daily activity as teacher. While, study by Hogan, Carlson, & Dua, (2002) found job and non-work stress has positively significant effect with behavioral, cognitive, and physiological reactions to stress as well as with negative emotionality. Job and non-work stress also predicted meaningfully with medical symptoms; non-work stress also correlated with reported medical seeking. Social support did not generally buffer the effect of stress or reactions to stress. It was also found that support staff reported higher levels of non-work stress and lower levels of work stress, but that two measures of job stress did not differentiate administrative and instructional personnel. Younger staff reported higher levels of job and non-work stress, and females reported higher levels of non-work stress, irrespective of job category.

Why job stress at a teacher must be stopped and managed properly. It because teachers have a central function for student's academic achievement. If a teacher cannot achieve their optimal performance in teaching and learning process, so they will not be able to transfer the knowledge in optimal and effective ways, then these conditions will cause an obstacle for students to receive the knowledge optimally and then not able to achieve higher academic performance. If a teacher experienced too many stress in their work, and they cannot manage it effectively, so it will bring decreasing productivity, and negative impact will be experienced by a student later (Dorman, 2003; Rice, 2005; Phillips, Dil Sen, & McNamee, 2007).

Many previous studies about work-related stressors conducted in western culture, which has different situational and cultural context (Stoner & Perrewe, 2006; Gellis, & Kim, 2004; Kim, Sorhaindo, & Garman, 2006; Jones, Kinman, & Payne, 2006; Jex et al, 2006). Ember and Ember (2000) argued that many scientists took their conclusion based on data, which are drawn from one culture, then generalized it to another culture, which has a different condition from first culture where data was taken. This opinion emphasized again by Wan Rafaei Abdul Rahman (2004) and Matsumoto and Juang (2008) that the major reason why the cross-cultural study is important to be used to test theories in non-western culture, because many East Asia countries have different values, beliefs, norm and attitudes and these conditions may raise questions about the universality of western theories if it will be applied in non western culture. Then, this study wants to examine the effect of gender, academic rank, employment status, and university type on job stress among university academic staff in cross cultural study.

## ***Literature Review***

### **Gender**

Several studies on the effects of gender on work-related stress have been investigated. Study by Wofford, Daly, and Juban (1999) found that relationships between stress propensity construct with subjective stress were higher for women than for men. Jick and Mitz (1985) reviewed 19 studies of gender differences in occupational stress and found that women more frequently experienced psychological distress in the workplace, while men experienced more severe physical distress. Study by Narayanan, Menon, and Spector (1999), who found that interpersonal conflict played a greater role in causing job stress for women than for men. Purvanova and Muros (2010) conducted a meta-analysis of the relationship between gender and burnout using 409 effect sizes from 183 studies. Their finding refused the commonly belief that female employees tend to experience burnout more than male employees. Their finding showed that women are slightly more emotionally exhausted than men ( $\delta=.10$ ), while men are somewhat more depersonalized than women ( $\delta=-.19$ ).

**Academic rank**

Academic rank is one factor that may have influence on job stress. The findings of the previous research showed that workers at lower organizational levels reported feeling more alienated than those working at higher levels, and they also reported experiencing less job satisfaction and more occupational stress (Guppy & Rick, 1996; Judge, Boudreau, & Bretz, 1996; Long, 1998; Marmot, 1994; Seegers & van Elderen, 1996; Theorell & Karasek, 1996). In addition, they also showed more days off because of sickness (Vahtera, Pentti, & Uutela, 1996), and have a greater risk for coronary heart disease (Marmot, 1994). Vagg, Spielberger, and Wasala's study (2002) found that dealing with crisis situations perceived more stress for employees at higher organizational levels, than workers at lower levels. Another finding was employee who perceived that they received inadequate salary and lack of progression for their career was more stressful than employee who perceived that they got adequate salary and career. These findings highlight the importance of organizational level as a major influence on the occupational stress experienced by men and women in a variety of work settings and underscore the importance of examining the effects of organizational level on specific sources of job stress.

Eyupoglu and Saner (2009) study indicated that professors, assistant professors, and lecturers with a PhD enjoy only moderate levels of job satisfaction, while associate professors and lecturers with a master degree enjoy even lower levels of job satisfaction. Furthermore, it was found that job satisfaction did not increase progressively with academic rank, and this result being inconsistent with results found in the literature. Oshagbemi (1997) study in UK academic staff found that job rank was a significant predictor of job satisfaction with workers at higher ranks was generally more satisfied with their jobs compared to those at lower ranks. Oshagbemi (2003) also found that overall job satisfaction increased progressively with rank. This phenomenon likely occurs because a higher-level academic rank tends to be more complex and have been better working conditions, pay, promotion prospects, supervision, and responsibility and all this condition may be contributed to person's job satisfaction (Robie et al., 1998; Aronson et al., 2005). Holden and Black (1996) indicated that full professors have a higher level of productivity and satisfaction than associate professors and assistant professors. Their study verified that academic rank have a positive correlation with productivity and satisfaction. Hickson and Oshagbemi (1999) found that both teaching and research job satisfaction increase with rank of academic staff.

**Employment status**

Several previous studies found that employment status has impact on how person perceived their job. Part time status has more dissatisfaction than fulltime permanent employee related to their insecure job. This job dissatisfaction that experienced by part time employee may directly lead to job stress. Feldman and Turnley (2004) study found that younger adjunct faculty will experience more relative deprivation, and more highly educated adjunct faculty will experience more relative deprivation. This relative deprivation condition will be negatively related to job satisfaction, professional commitment, positively to careerist attitudes toward work and efforts to find alternative employment and negatively to organizational citizenship behaviors. Ishizaki, Martikainen, Nakagawa, Marmot (2000) study found that low employment grade and low educational background were associated with an increased age-adjusted plasma fibrinogen level that an important factor for cardiovascular disease. This result is occurred may be low employment status, and grade creates job dissatisfaction because of a limitation recognition, salary, challenge and other important factors for an ideal job.

Burke's study (2002) found that women working in lower status jobs indicated high levels of job stress, more harassment in their workplaces, a more hostile, harassing work environment, greater job insecurity, greater exposure to physical hazards at work, greater physical demands (e.g. bending, lifting) in their jobs, and fewer comfortable workplace temperatures. Besides that study by Burke (2002) found women in lower status jobs indicated less job satisfaction and higher levels of absenteeism in the preceding year. In addition, they reported more psychosomatic symptoms, more work related psychosomatic symptoms and more days of illness in the preceding year.

**University type**

University type may have an influence on increasing workload and job complexity on academic staff. This workload and job complexity would directly lead to the possibility of forming the stressful working conditions. The difference between workload and job complexity among public and private university could be a factor that makes the difference in levels of job stress experienced by academic staff (Gibson, Ivanevich, and Matteson, 2006). Robbins (2003) stated that different organization has different culture and climate.

This organizational climate and culture would influence how task and job be done by employees. This study want to examine whether private university academic staff has more stress than public university academic staff.

### **Research hypothesis**

The research hypothesis in this study, whether there are significant differences of job stress based on gender, academic rank, employment status, and university type among university academic staff in Pahang, Malaysia and Jogjakarta, Indonesia's culture.

### **Method**

In this research, a survey was used to investigate the possible relationship between work-related stressors and job stress among academic staff in two nations. 680 participants included in this study, 343 came from Pahang, Malaysia and 337 came from Jogjakarta, Indonesia. The sample of this study was academic staffs from three universities in Pahang, Malaysia which two universities are public university, and one university is private. The sample from Jogjakarta was come from three universities, which one public university and two private university. The sampling method that was be used in this study is stratified random sampling technique. The goal in stratified sampling is to form groups or strata of units such that within a stratum, the units are very similar on the characteristic of interest. Then each stratum is a sample independently to obtain the sample for the survey (Biemer, & Lyberg, 2003). This sampling technique is used to ensure that strata or layers in the population are fairly represented in the sample. The advantage of stratified random sampling is a to ensure a high degree of representatives of all the strata or layers in the population (Salkind, 2006).

#### *Pahang sample*

Three hundred and forty three participants participated in this study. Among the 343 participants, 51.9% (N= 178 ) were male and 48.1% (N= 165) were female. Of the sample, 4.1% (N=14) was age between 20-25 years old, 9.3% (N= 32) were 26-30 years old, 18.7% (N= 64) were 31-35 years old, 23.6% (N=81) were 36-40 years old, 22.7% (N=78) were 41-45 years old, 17.5% (N=60) were 46-50 years old, and 4.1% (N=14) were greater from 50 years old.

In academic rank category, 5.8% (N= 20) were tutors, 25.9% (N= 89) were lecturers, 41.7% (N= 143) were senior lecturers, 22.4% (N= 77) were associate professor, and 4.1% (N= 14) were professors. In employment status category, 4.1% (N= 14) were part-timer academic staffs, 10.8% (N= 37) were full time contract staffs, and 85.1% (N= 292) were full time permanent staffs. Participants came from two type university, 66.2% (N= 227) from public university, and 33.8% (N= 116) came from private university.

#### *Jogjakarta sample*

Three hundred and fourty three participants participated in this study. Among the 337 participants, 53.1% (N= 179 ) were male and 46.9% (N= 158) were female. Of the sample, 3.9% (N=13) was age between 20-25 years old, 10.1% (N=34) were 26-30 years old, 19% (N=64) were 31-35 years old, 21.4% (N=72) were 36-40 years old, 21.7% (N=73) were 41-45 years old, 12.2% (N=41) were 46-50 years old, and 11.9% (N=40) were greater from 50 years old. In academic rank category, 5.9% (N= 20) were tutors, 30.6% (N= 103) were lecturers, 32.9% (N= 111) were senior lecturers, 20.8% (N= 70) were associate professor, and 9.8% (N= 33) were professor. In employment status category, 10.1% (N= 34) were part-timer academic staffs, 33.8% (N= 114) were full time contract staffs, and 56.1% (N= 189) were full time permanent staff. Participants came from two type university, 38.6% (N=130) from public university, and 61.4% (N=207) came from private university.

#### *Measurement Equivalence*

The process of instrumentation involves the use of culturally equivalent variables, translation into a second language, and scaling. The problem of equivalent variables arises when variables designed in, by, and for one culture are applied to a second culture without modifications. In the present study, researcher developed in as universal terms as possible. Having done so, the next step would be to 'localize' the variables to suit a certain culture. Techniques to do so include conducting factor analyses and unstructured interviews on each culture (Lim & Firkola, 2000). This approach was called for the use of a combination of etic and emic approaches, resulting in what they called an emically defined etic construct' (Leung, 1989). The questionnaire in Indonesia sample was translated and adapted to capture country features. The questionnaire was translated from English to the language of the country and then different translators translated them back into English.

The *back translations* were compared with the original instrument to ensure the precision of the translation. This procedure is used to reach the *linguistic equivalence* that refers to whether the research protocols such as items on questionnaires, instructions, used in a cross cultural study are semantically equivalent across the various languages include in the study (Matsumoto & Juang, 2004). The concept underlying this procedure is that the end product must be a semantic equivalent to the original language. The original language is *decentered* through a back-translations process (Brislin, 1993; Lim & Firkola, 2000).

The procedure of *back translation* involved two bilingual expert in English and Indonesia language in order to achieve the language equivalent of a questionnaire. The translations then were followed by pilot-testing in the focus group for further revision and cultural adaptation. It is because in Indonesia, teaching in English is not so familiar, and it just has been used at several faculties like, English faculty, international medical class faculty, or international class. Based on the condition mention above and in order to avoid a mistake in capture the meaning of items in the questionnaire, then the questionnaire will be translated into Indonesia language with forward and back-translations. In order to achieving the validity and reliability of data, researcher did a pilot-testing to sure the equivalent of construct of research variables in Indonesia sample.

In Malaysia, since English is a widely spoken language in academic staff, and many higher learning institutions use English in their teaching and learning process, there was no need to translate the instrument for collecting data. In the present study, the questionnaire was developed to measure all of variables and the language of questionnaires is in English. The other reasons why the questionnaire in English language is academic staff or lecturer in Malaysia have well-English proficiency, and they use English language in a teaching-learning process every time. This condition makes academic staff in Malaysia can understand the meaning of items in scale without wrong perception. Wan Rafea Abdul Rahman (2004) stated that Malaysia has had a long history of association with United Kingdom (UK), and it is unlikely for Malaysians academic staff not to be influenced by western culture (UK). In order to achieving the validity and reliability of data, researcher did a pilot-testing to sure the equivalent of construct of research variables in Malaysia sample.

#### *Demographic sheet*

A demographic sheet was designed to collect data regarding the participants' characteristic and career background. Data included: age, gender, marital status, ethnic background, work experience as academic staff, employment status, number of children, religion, type of university, and academic rank.

#### *Job stress scale*

Job stress was measured by job stress scale that adapted from stress indicator scale (2007) and totally revised by researcher. Because SIS did not report their reliability result and intended for measuring life stress, and not specifically measure work-related stress, then researcher totally revised SIS become Job Stress Scale (JSS). Job stress scale has four indicator responses to measure the level of job stress responses that experienced by participants. Following is the indicators and a sample item for each: (a) Behavioral responses—" *If there is an opportunity, I like to go out in working time,* " (b) Emotional responses—" *I feel bored with my job now,*" (c) Cognitive responses—" *In recent time I easily forgot something,*" (d) Physiological responses—" *All of my body muscles feel fatigue.*" Table 3.1 summarizes the indicator and related items. A 4-point Likert-type scale is used to assess each participant's perceived job stress level. These response choices on this continuous scale include: 1 (*never*), 2 (*seldom*), 3 (*sometimes*), and 4 (*frequently*).

#### *Job stress scale result for Pahang group*

To asses the factor structure of the scale and loadings of individual items on job stress scale, a set of CFA tests were conducted. According to the previous EFA, four factors were confirmed. First factor was behavioral responses with three items (item3, item4, and item5). Second factor was emotional responses with four items (item6, item7, item8, and item10). Third factor was cognitive responses with four items (item12, item13, item14, and item15). Finally, fourth factor was physiologic responses with seven items (item16, item17, item18, item21, item22, item23, and item24). In the CFA, the items expected to load on job stress scale were loaded well on its expected factor. But item2 was dropped because has a lower standardized factor loading (.409), several experts suggest a factor loading greater than .450 is adequate (Hair et al., 2005; Ghazali, 2008; Byrne, 2001). After the model was re-estimated and the solution estimates were re-examined, the final model exhibited adequate goodness of fit statistics with acceptable factor loading levels.

**Table 1:** CFA results for job stress scale for Pahang group

Items	Standardized Loadings	Factor	t-Values	Skewness	Kurtosis
Item3 (behave)	.644		.70*	.729	-.020
Item4 (behave)	.798		.95*	.895	.297
Item5 (behave)	.906		1.00*	.777	.354
Item6 (emotional)	.644		.87*	.685	.132
Item7(emotional)	.838		1.24*	.425	-.663
Item8(emotional)	.794		1.138	.552	-.401
Item10(emotional)	.724		1.00*	.515	-.890
Item12(cognitive)	.761		1.23*	.362	-.755
Item13(cognitive)	.887		1.40*	.409	-.677
Item14(cognitive)	.684		1.01*	.324	-.465
Item15(cognitive)	.645		1.00*	.237	-.818
Item16(physiologic)	.771		1.00*	.457	-.981
Item17(physiologic)	.831		1.03*	.441	-.822
Item18(physiologic)	.793		1.11*	.524	-.780
Item21(physiologic)	.778		.97*	.612	-.659
Item22(physiologic)	.735		.96*	.617	-.802
Item23(physiologic)	.732		1.00*	.301	-1.227
Item24(physiologic)	.810		1.03*	.706	-.485
<b>Fit measurement</b>	Chi-square=	188.14,	RMSEA	NFI=	CFI=
	df=110		=.055	.931	.970
	CMIN= 1.710, p<.001		TLI= .958	GFI=	*p<.001
				.916	
<b>Construct reliability</b>	Behavior = .831		Cognitive = .835		
	Emotional = .840		Physiologic = .915		
<b>Average Variance Extracted (AVE)</b>	Behavior = .624		Cognitive = .562		
	Emotional = .568		Physiologic = .606		

Table 1 showed the CFA model fits, factor loading of items, and t-values for a path coefficient. It also describes skewness and kurtosis values for the multivariable normality. The t-values were significant at the level of .05, and the values of skewness and kurtosis were not exceeded recommended values (2.0 and 6.0, respectively), then the scale has a normal distribution. The chi-square was reasonable fit (188.14, (110), p<.01, CMIN= 1.71), RMSEA= .055, TLI=.958, NFI=.931, the t-values of each item were significant (p<.01), and other model fits showed strong values for well-fitting model. Thus, the CFA results showed that the model was a good one with solid path coefficients.

*Job stress scale result for Jogjakarta group*

Unlikely Pahang sample, item17, item23 and item24 in fourth factor was dropped in Jogjakarta sample because it has a lower item-total correlation score below .30, in previous reliability analysis with internal consistency technique. In the CFA, the items expected to load on job stress scale were loaded well on its expected factor. The model was estimated and the solution estimates were examined. The final model exhibited adequate goodness of fit statistics with acceptable factor loading levels.

Table 2 shows the CFA model fits, factor loading of items, and t-values for a path coefficient. It also describes skewness and kurtosis values for the multivariable normality. The t-values were significant at the level of .05, and the values of skewness and kurtosis were not exceeded recommended values (2.0 and 6.0, respectively), then the scale has a normal distribution. The chi-square was reasonably fit ( $\chi^2$  =223.191, (127), p<.01, CMIN= 1.757), RMSEA= .056, TLI=.959, GFI=.905, NFI=.925, CFI=.966, and the t-values of each item were significant (p<.01), and other model fits showed strong values for well-fitting model. Thus, the CFA results showed that the model was a good one with solid path coefficients.

**Table 2:** CFA results for job stress scale

Items	Standardized Factor Loadings.	t-Values	Skewness	Kurtosis
Item2(behave)	.677	1.00*	.410	-.268
Item3 (behave)	.744	1.084*	.122	-.586
Item4 (behave)	.796	1.145*	.254	-.430
Item5 (behave)	.767	1.116*	.239	-.633
Item7 (emotional)	.748	1.000*	.130	-.471
Item8(emotional)	.874	1.179*	.145	-.552
Item9(emotional)	.835	1.102*	.178	-.418
Item10(emotional)	.763	.953*	-.125	-.685
Item12(cognitive)	.806	1.00*	-.049	-.877
Item13(cognitive)	.836	.979*	.030	-.662
Item14(cognitive)	.791	1.056*	.193	-.684
Item15(cognitive)	.745	.895*	.085	-.744
Item16(physiologic)	.812	1.097*	.459	-.540
Item18(physiologic)	.802	.975*	.424	-.490
Item19(physiologic)	.837	.964*	.193	-.901
Item20(physiologic)	.862	1.00*	.322	-.580
Item21(physiologic)	.829	.985*	.435	-.534
Item22(physiologic)	.837	1.058*	.468	-.526
<b>Fit measurement</b>	Chi-square= 223.191, df=127 CMIN=1.757, p<.001	RMSEA =.056 TLI= .959	NFI= .925 GFI= .905	CFI= .966 *p<.001
<b>Construct reliability</b>	Behavior = .834 Emotional = .882	Cognitive = .873 Physiologic = .931		
<b>Average Variance Extracted (AVE)</b>	Behavior = .558 Emotional = .651	Cognitive = .632 Physiologic = .689		

*Measurement Equivalence Analysis*

Interpretational confounding can occur when there is substantial measurement variance because the factor loadings are used to induce the meaning of the latent variables (factors). That is, if the loadings differ substantially across groups or across time, then the induced meanings of the factors will differ substantially even though the researcher may retain the same factor label. To test factor invariance, the researcher may constrain factor loadings to be equal across groups or across time. Measurement invariance may be defined with varying degrees of stringency, depending on which parameters are constrained to be equal (Byrne, 2010; Meyers, Gamst, & Guarino, 2006). The following table below presents the result of invariance testing for all measurement models in this study.

**Table 3:** Invariance testing for job stress scale

Model	Chi-square	Compr. p	NFI	TLI	CFI	RMSEA
Unconstrained	334.071	.000	.914	.930	.947	.055
Measurement weights	382.154	.000	.902	.924	.938	.057
Structural covariances	382.887	.392	.902	.925	.938	.057

Table 3 presented the result of invariance test on job stress scale with two factors constrained. It suggests that job stress scale has a partial-invariance among groups. It showed that model comparison testing of measurement weights reject the null hypothesis ( $p=.000$ ), while structural covariance accepts the null hypothesis ( $p=.392$ ). Other results showed that unconstrained model, measurement weights and structural covariance have a good model fit. Unconstrained has a chi-square= 334.071, NFI= .914, TLI= .930, CFI= .947, and RMSEA= .055.

While, measurement weight model has a chi-square= 382.154, NFI= .902, TLI= .924 , CFI= .938 , and RMSEA= .057. Then, structural convariances model has a chi-square= 382.887, NFI=.902, TLI=.925, CFI= .938 , and RMSEA= .057.

**Result**

This study showed that gender variable has influences on job stress, which women academic staff has a higher job stress level than male academic staff. This phenomenon are found either in Pahang group (F=109.1, p=.000, eta square= .24) or Jogjakarta group (F=39.4, p=.000, eta square= .105). Table 4 showed the result of ANOVA how gender influence job stress among academic staff in two country.

**Table. 4:** The level of job stress based on gender of respondent

Group	Gender	N	Mean	SD	df	F	P
Pahang	Male	178	34.74	8.26	1	109.1	.000
	Female	165	44.53	9.11			
Jogjakarta	Male	179	36.6	9.1	1	39.4	.000
	Female	158	42.6	8.5			

Academic rank was another demographic variable that tested in this study. There is a significant difference level of job stress based on academic rank of respondents either in Pahang sample (F=8.81, p= .000) or Jogjakarta sample (F=7.83, p= .000). This result indicates that academic rank of academic staff has an effect on the level of job stress their perceived. Table 5 indicated the effect of academic rank on job stress among academic staff in two nations.

**Table 5:** The level of job stress based on academic rank of respondent

Group	Academic rank	N	Mean	SD	df	F	P
Pahang	Tutor	20	44.4	10.2	4	8.81	.000
	Lecturer	89	41.8	8.3			
	Senior lecturer	143	39.9	10.6			
	Associate professor	77	36.4	8.9			
	Professor	14	29.2	7.6			
	Tutor	20	38.8	9			
Jogjakarta	Lecturer	103	42.7	8.6	4	7.83	.000
	Senior lecturer	111	39.5	8.2			
	Associate professor	70	37	10.			
	Professor	33	34	9.8			

In this study, employment status of academic staff has an effect on job stress especially in Jogjakarta sample (F= 8.96, p= .000), but not for Pahang sample (F= .683, p= .506). Full time contract academic staff has the job stress level than part-time and fulltime permanent academic staff. Table 6 showed the effect of employment status on job stress among academic staff in two nations.

**Table 6:** The level of job stress based on employment status of respondent

Group	Employment status	N	Mean	SD	df	F	P
Pahang	Part-timer	14	37.0714	10.22414	2	.683	.506
	Fulltime contract	37	38.4054	9.91760			
	Fulltime permanent	292	39.6849	9.95678			
Jogjakarta	Part-timer	34	37.2	8.2	2	8.96	.000
	Fulltime contract	114	42.3	11.2			
	Fulltime permanent	189	38	7.7			

Another demographic variable that affects job stress was the university type of academic staff where they work. This study showed that academic staff that works in private university has the higher job stress level than academic staff that works in public university. This effect was happened either in Pahang sample (F= 19.6, p= .000) or Jogjakarta sample (F=13.43, p= .000). Table 7 illustrated the effect of university type on job stress where an academic staff worked in two nations.



**Table 7:** The level of job stress based on university type of respondent

Group	University type	N	Mean	SD	df	F	P
Pahang	Public university	227	37.8	10.3	1	19.6	.000
	Private university	116	42.7	8.5			
Jogjakarta	Public university	130	37.1	9.2	1	13.43	.000
	Private university	207	40.8	9.1			

### Discussion

The aim of this study was to investigate the effect of gender, academic rank, employment status, and university type belong to academic staff worked on perceived job stress in two nations, that is university academic staff from Pahang, Malaysia and Jogjakarta, Indonesia. The finding showed that in general all predictors have an effect on job stress experienced by academic staff in two countries. This study finding contributes and verify existing result from previous studies on the effect of demographic variables on job stress among university academic staff, especially on two nations like Pahang, Malaysia and Jogjakarta, Indonesia.

This study finding found that gender has an effect on job stress level experienced by academic staff in two nations. Female academic staff experienced has higher job stress level than male academic staff. Some rational explanation for this phenomenon as follows. According to the theory of differential exposure stress hypotheses states that women experience more stress in their lives than men (Bennett, 2006). This causes women more prone and vulnerable to stress and psychological tension than men. Women bear more burden, difficulties and hardship in the workplace and in their family than men (Rieker and Bird, 2000). In addition, they encounter more role strain and spillover between the demands of work and home. Even after they work full-time, women tend to do more work in the home than their partners. This condition creates more taxes and demand on women and may place them at increased risk for stress-related and mental health problems. The study of Lundberg, de Chateau, & Weinberg (1981), found that female managers' stress hormone levels remain raised following work, than male managers. If men come home with a goal to relax their condition after working hard all day, on the contrary, women still do their task at home after working as a mother and wife to fulfill the need of her family.

Meanwhile academic rank showed a significant effect on academic staff job stress either in Pahang or Jogjakarta. A person with lower academic rank was more stressful than higher academic rank. The explanation of this phenomenon is each rank has a difference workload level. For example, tutor has a difference workload than a lecturer, and lecturer has a difference workload than a senior lecturer, and so on for associate professor or professor. This difference workload has an implication on a situation that can create strain and tension in daily work setting of academic staff. Another explanation is lower rank staff felt and received inadequate salary and lack of opportunity for advancement. This condition may be creating unsatisfactory feeling that has an implication to distress situation in work setting.

In more detail, there are differences of which academic rank that has more stress between Pahang group and Jogjakarta group. For Pahang group the highest level of stress was tutor, then followed by lecturer, senior lecturer, associate professor, and lastly professor. This result indicates that lowest rank has the highest workload than higher rank, especially for Pahang group. For Jogjakarta group, lecturers has been highest level of job stress than all other rank, then followed by senior lecturer, tutor, associate professor and lastly professor. This phenomenon was happened to may be because of lecturer, and senior lecturer has a more workload than tutor, associate professor and professor in Jogjakarta situation.

In this study found that employment status of academic staff has an effect on job stress, especially in Jogjakarta sample ( $F= 8.96, p=.000$ ), but not for Pahang sample ( $F= .683, p= .506$ ). Fulltime contract academic staff has the highest job stress level than part-time and fulltime permanent academic staff. This may be happened because of unachieved aspiration that related to person's desire to get more stable job status. This may be happened because of unachieved aspiration that related to person's desire to get more stable job status. This condition creates a frustration feeling that further to impact on lower work motivation, job dissatisfaction, and finally increasing the possibility risk of high job stress level. The frustration condition was happened because of the reason about having invested years of education (and considerable money) into receiving their degrees, and then just has a contract job with an insecure situation after graduation. This especially creates frustrated among them because not receiving the kinds of permanent jobs they expected on graduation (Feldman & Turnley, 1995).

Another finding showed that university type where an academic staff worked showed a reliable influence on job stress. In general academic staff from the private university was more stressful than academic staff from the public university. This condition was happened to may be because of the workload, organizational culture, task diversity, and ratio between lecturer, and student are difference between the public and private university. Based on interview and observation, researcher found that private university has an imbalance ratio between lecturers with students, where the number of students is more than the lecturer. This condition causes lecturer handle more students in class and in daily consultation. This condition especially happens on private university academic staff from Jogjakarta group. Another explanation is in general private university receives lower quality of new student based on academic performance, learning attitude, motivation and ability. These low quality student inputs make lecturer work harder to facilitate the student in a teaching-learning process. Lecturer has to handle inattentive student with low motivation to study, and this condition manifest in a daily learning process in class such as passive attitude, misbehavior in class, make a noise in class, and so on.

Another explanation is the salary, facility completeness, and work situation of the private is lower than public university. Especially for private university in Jogjakarta sample, the salary comparison is 20% lower than public university. Lower salary may be making private university academic staff more dissatisfaction about their job than public university. All these conditions may be creating more stress on the private lecturer than the public lecturer. One academic staff from Jogjakarta private university said that “ *I learn as much as possible to make the lecture interesting....but I do not know why students sometimes is less responsive during lectures, less serious ...I want an interaction right there...it made me tension....*”. This statement indicated that private lecturer faces more stress when dealing with their student because of unmotivated, unresponsive and passivity of student in the class.

### **Conclusion**

The study identified that gender, academic rank, employment status and university type where academic staff worked has an significant effect on job stress on a cross nation, either in Pahang, Malaysia and Jogjakarta, Indonesia. Female academic staff has a more job stress level than male academic staff. For academic rank showed that lower academic rank has more stressful work life event than higher academic rank. For employment status showed that academic staff with part-timer status perceived higher job stress level than fulltime permanent status. Lastly, academic staff from the private university showed a higher job stress level than academic staff from the public university in two countries.

This finding then recommend several action to take place for prevent and reduce unacceptable level of job stress among academic staff in university. First, female academic staff has more burden in their life so university have to implement a favorable policy for female academic staff such as flexible worktime, reasonable workload, and reducing long working hours so this workload not conflict with their role in family. Second, university have to implement equal opportunities policy for career advancement for all academic staff with no discrimination. Third, stress management seminars should be organized for develop coping skill for academic staff to increase their capability to manage stressful working situation in efficient and effective ways. Fourth, university should provide a health care centres that give assistance and intervention for academic staff that has higher indication of distress. Five, university management should continually organizes a stress assesment program for indentification and evaluation about the current level of stress and stressors that maybe experiences by their academic staff, so this assesment data could be foundation for implementing prevention or intervention action to reduce stress in workplace. All this recommendation should be conducted with consistency, comprehensiveness and effective ways, so the goal for reducing stressful workplace situation can be achieved in satisfaction and optimal level.

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