

Modeling Academic Professional Performance in Higher Education

Sukirno

Yogyakarta State University, INDONESIA

ABSTRACT

As a developing country, Indonesia is facing problems regarding lecturer performance. This study was intended to provide empirical evidence among variables related lecturer performance and to investigate the effect of reward system, lecturer satisfaction and commitment on lecturer performance in higher education institutions in Indonesia. A closed ended questionnaire was administered to collect data and 750 questionnaires were distributed by using snow ball sampling method to public and private universities in Indonesia. About 347 questionnaires were returned and could be further analyzed. Respondents were required to indicate their level of agreement on various items with a five-point scale. Path analysis was employed to test research hypotheses. Independent t-test and Anova test were also conducted to investigate the differences impact demographic data on the variables being examined. This research found that higher reward system, lecturer commitment and lecturer satisfaction significantly improve lecturer performance in higher education institutions in Indonesia. The findings and limitations are discussed and recommendations for education policy makers and researchers are also provided.

KEYWORDS

Lecturer performance, reward, satisfaction, commitment, higher education

ARTICLE HISTORY

Received 11 January 2017
Revised 30 March 2017
Accepted 12 April 2017

Introduction

In today's knowledge economy the importance of education has been worldwide recognized. All developed countries are spending a major part of their budget on education. The success of the students in the classroom learning process can not be separated from the role and competency of the teaching staff. Competence is basically a picture of what a person should do the job. Competency is an underlying characteristic of a person related to the effectiveness of individual performance on the job or the basic characteristics of individuals who have a causal relationship or a cause and effect with the criteria referenced, effective or excellent or superior performance in the workplace or in certain situations (Hakim, 2015). Within education system of any country, teachers have vital position, as the success of educational institutions is mostly

CORRESPONDENCE Sukirno ✉ sukirno@uny.ac.id

© 2017 Sukirno.

Open Access terms of the Creative Commons Attribution 4.0 International License apply. The license permits unrestricted use, distribution, and reproduction in any medium, on the condition that users give exact credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if they made any changes. (<http://creativecommons.org/licenses/by/4.0/>)



dependent on teachers, who educate the most valued assets of country, i.e. students; therefore the teachers' performance is fundamental concern of all educational institutions (Khan et.al., 2012).

Since 1999, the implementation of the spirit of reformation era, Indonesia has been probably one of the most dynamic countries in the globe because the government's endeavor to implement higher education reform is facing serious resistance from various groups in the society (Sulistiyono, 2007). Several issues raised related to education reformation are justice and equality of education distribution, commercialization of education, and less of total education expenditures (Wicaksono and Friawan, 2008). Several components must be considered related to the quality of higher education, those are learning process, human resources, student affairs, curriculum, facilities and infrastructure, academic atmosphere, finance, research and publication, community service, governance, institutional management, information system and networking (Taufiq, 2012).

Based on the data published by Evaluation Biro of Higher Education Commission in Indonesia, in 2017, there are around 4,925 universities in Indonesia, the biggest number in the world. From the total number of 4,925 public and private undergraduate programs in Indonesia, only 9.1% received an excellent rating. In an international level, there are only four universities in Indonesia that are rated in top-hundred universities in Asia (Webometrics, 2017). Total number of the lecturers is now around 271.196 comprising of 39% (98.043) female, 61 % (173.153) male and only 4% of teachers are with doctorate. More specifically, only 2% (4.040) of them are full professors (Ristekdikti, 2016). Other problems influencing performance among higher education institutions around the world are the assessment of performance and reward system. Both factors are the trigger of bad work culture and college performance (Njanja, et.al., 2013; Akinbowale, et.al., 2014).

To improve quality of higher education, Indonesian government has been advocating several strategies, autonomy, accountability, accreditation, self-evaluation, and continuous quality improvement (Brodjonegoro, 1997). Besides, Indonesian government has improved education budget allocation gradually from 12% for 2006 to 21% for 2009. Even so, the allocation of the budget improvement especially for the higher education department is still low (Ikhsan and Asih, 2008).

In fact, what is happening with education system in Indonesia is in line with the empirical findings reported by the World Bank in the year of 2000. It was reported that around 50 percent of the total number of students in higher education live in the developing countries and faculties are found underqualified, less motivation, and get poor rewards (World Bank, 2000). Relevant to those, Rasian (2009) found that Azerbaijan, Turkey, Irak, India, Pakistan, Iran and Iraq and other developing countries are also facing similar challenges of funding insufficiencies, low standards, political and religious influence on universities, and poor incentives.

Lecturer performance becomes measurement tool of college operation effectiveness (Handoko et.al., 2013). Teacher's performance is believed to be one of the most prominent factors in determining student's and organization's performance (Zhang and Fang, 2009). Lecturer performance also reflects the

effectiveness of college management (Handoko et.al., 2013). In order to accomplish the national education philosophy, the teachers have to work hard and give full devotion towards their career. It is therefore not surprising that teachers nowadays are more stressful due to their obligation towards national education needs, school authorities and parent expectations (Azura and Normah, 2008).

Lazear (2001) suggested that the quality of teacher could be improved by providing better rewards. Providing a better compensation implies that a larger pool of applicants, in which school could have a more selective in hiring teachers. Consequently, schools would be able to keep skillful teachers and improve their quality of services. Compensation is an important factor affecting how and why people choose to work at one organization over others (Mathis and Jackson, 2005).

Pertaining to the effort to enhance lecturer performance, it is also related to the lecturer satisfaction. Alzaidi (2009) studied about head teacher satisfaction in secondary school in Jeddah Saudi Arabia. He mentioned that job satisfaction is considered to be a primary concern in education because it is linked with teacher performance. It was found that teacher satisfaction can significantly increase teacher performance and in turn teacher performance will boost teacher commitment and organizational performance as well (Ostroff, 1992; Mathieu, 1991).

Another neglected managerial aspect related to the lecturer performance is lecturer commitment. In almost all developing countries, it was found that many classes are still taught by teaching assistants instead of a formal faculty. Faculties do not have a good commitment to teach in their classes (Rasian, 2009). This condition is also generally the case in the U.S. where doctoral students are in fact conducting tutorial sessions for full professors. Lecturers and managements in the universities generally have different values. Chughtai (2008) argued that lecturers who have loyalty to their organizations are more likely to keep working with the organizations and put more effort towards organization success. Doing so, loyal lecturers should be better performers compared to the non-loyal lecturers (Chughtai, 2008).

Linkage between Reward System and Lecturer Performance

Policymakers and researchers agree that quality of teacher is a phenomenal policy issue in education reform. In more particular, giving a better teacher compensation is the most important policy affecting student achievement (Rice, 2003). Workload, long working hours, poor status and lower monthly payments were found as among the most stressful events in teaching careers (Azura and Normah, 2008).

The fact that we all love justice and should allow others to also enjoy justice is an invaluable lesson. Equity theory advances the notion that compensation equity exists when employees believe that “what is” is what “should”. That is employees (lecturers) are satisfied with their compensation when: (1) equals are rewarded equally, and (2) unequals are rewarded unequally. Discrepancy exists whenever a person perceives that the ratio of his job outcomes to job inputs, in comparison with reference to a person’s outcomes to inputs, is unequal. Further Efanga (2015) stated that in equity theory, inputs



include among others, effort skills, education and task performance that an individual employee (lecturer) brings to or put into the job. Outcomes on the other hand are those rewards that result from task accomplishment such as pay, promotion and recognition. Merit pay advocates postulate that our best lecturers are dissatisfied with the uniform salary schedule because lecturers who are identical in experience and education are paid the same salary regardless of difference, that is unequal effort yields equal reward and lecturers whose performances are identical will be compensated differentially if they differ in experience and education.

Morris and Maloney (2005) argued that a basic assumption in reward system says “good performers tend to seek organizations where performance is recognized and rewarded.” It means a good reward system should be able to distinguish good performers from poor performers. Taking steps to balance employee inputs (education, effort, experience, time worked and special skills) and outputs (salary/pay, benefits, recognition, achievement and any other compensations) becomes a plausible approach to treat employees fairly (Fisher, Schoenfeldt, and Shaw, 1993).

Rewards refer to an employer feedback to employees for their contribution to the organization (Stone, 2002; Coughlan, 2006). It may comprise direct and indirect rewards. Direct rewards include salary or hourly wages. While indirect rewards refer to benefits that organizations provide to the employees (Fisher, Schoenfeldt, and Shaw, 1993). Rewards can be also organized as extrinsic or intrinsic (Ajila and Abiola, 2004; Bhattacharya and Mukherjee, 2009). Intrinsic reward is directly related to the the job itself in which the employee feels enjoyable as a result of finishing the assignment or achieving a goal. It can be called ‘psychological rewards’. It may include a chance to practice individual’s ability, a challenging task, boss’s appreciation, a positive recognition, or being treated in an appropriate manner. In contrast, extrinsic reward refers to an external recognition that is related to the job such as salary/pay, fringe benefits, job security, job promotion, a good contract of service and other favorable work conditions.

Reward systems play an important role in employee involvement, in inspiring, energizing, motivating and thus ‘engaging’ employees (Bhattacharya and Mukherjee, 2009). It should be attractive and retain the talented people in an organization, encourage employees to develop their abilities and skills, promote employee motivation, and create a strong teamwork culture supporting the organization’s success (Fisher, Schoenfeldt, and Shaw, 1993). Rewards can become ‘a catalyst’ for improving employee performance. Reward system can be used as a technique to improve job satisfaction and performance (Shinew and Weston, 1992). Many organization scholars and practitioners in human resource management have argued that salary/pay, when properly administered, improves job performance, motivates employees to work harder and affect them to keep with the organization’s desires (Pattern, 1977).

Reward system is also believed as another organizational factor improving job satisfaction and job performance (Shinew and Weston, 1992) and increase employee commitment as well (Bhattacharya and Mukherjee, 2009). By studying employees in Taiwan, Curivan (1999) and Tsai (2005) revealed that reward system is significantly related with job performance. It was also reported that

there is a significant, direct and positive impact of rewards system and work satisfaction among employees of Unilever Companies in Pakistan (Ali and Ahmed, 2009). The findings support the common notion that the effective reward system practices can increase employee and organizational performance. Hence, if rewards offered to employees change then employee satisfaction also will be different. Based on the relevant literature review, the following hypotheses are then proposed.

Hypothesis 1 : Perceived better reward system implementation will improve lecturer satisfaction in HEIs in Indonesia.

Hypothesis 2 : Perceived better reward system implementation will hike lecturer commitment in HEIs in Indonesia.

Hypothesis 3 : Perceived better reward system implementation positively instills lecturer performance in HEIs in Indonesia.

Linkage between Job Satisfaction and Job Performance

Job satisfaction plays strategic role in organization efforts to become the main factor of work performance (Alzaidi, 2009). Job satisfaction is a general attitude towards a job that is directly linked to individual needs. It may comprise of equitable rewards, challenging work and a supportive work physical and social environments (Ostroff, 1992).

Employees perceive job satisfaction as an essential component of their personal happiness and it is linked to other organizationally relevant outcomes such as performance (Luthans, 1998). The relationship between job satisfaction and performance has been attracting researchers for many years to investigate whether satisfied worker increases performance while they found inconclusive findings (Jones, 2006).

Fisher, Schoenfeldt, and Shaw (2003) convinced that a causal relationship exists between job satisfaction and job performance. There is a relationship between employee job satisfaction and job performance, and satisfaction is an attitude about their job (Zembylas and Papanastasiou 2004). Relevant to that, it is said that “happier worker is a productive worker” (Jones, 2006). A study reveals that job satisfaction has an impact on organizational commitment, which may also affect employee turnover and organizational performance (Mathis and Jackson, 2005). It has been also proved that job satisfaction relates to organizational commitment and performance (Tella, Ayeni, and Popoola, 2007; Pettijohn, Linda, and Taylor, 2008).

An evidence relating to the relationship between job satisfaction and organizational commitment was also documented by Lahai et al. (2004). They investigated workers in a variety of electrical and electronic industries in the Klang Valley in Malaysia. As they had hypothesized, the result revealed that satisfaction was positively related to organisational commitment. Employees that have a high job satisfaction care more about the quality of their work and, therefore are more committed to their organization (Long and Swartzel, 2007).

Employers normally expect that people with higher levels of job satisfaction will have higher levels of organizational commitment (Warsi, Fatima, and Sahibzada, 2009). The reason why satisfaction will lead to the commitment is that a higher level of job satisfaction may lead to good work life



and reduction in stress. Similarly, if employees are highly satisfied with their work, coworkers, pay, and supervision and derive high level of overall job satisfaction with their jobs they are more likely to be committed to the organization than if they are not satisfied.

Surveyed of job satisfaction and organizational performance of 276 volunteers serving in various community, professional, and fraternal organizations in Alabama, Starnes (2007) found a statistically significant strong positive correlation between organizational commitment and job satisfaction. On their research using private sector employees of Pakistan, Warsi, Fatima and Sahibzada (2009) found that there is a positive and significant relationship between job satisfaction and organizational commitment.

Teaching is a highly noble profession and teachers are always a boon to the society (Chamundeswari, 2013). Further, the ultimate process of education could be simplified as a meaningful interaction between the teacher and the taught. The teacher thus plays a direct and crucial role in moulding a pupil towards education. Since a teacher is a role model for the students, job satisfaction and eventually performance of teachers become very vital in the fields of education (Chamundeswari, 2013). On the basis of the foregoing literature review linking between job satisfaction, organizational commitment and job performance, it is hypothesized that:

Hypothesis 4: Lecturer who perceived his or her satisfaction higher tend to have higher commitment to his or her organization.

Hypothesis 5: Lecturer who perceived his or her satisfaction higher tend to show higher performance to his or her organization.

Linkage between Lecturer Commitment and Lecturer Performance

Organizational commitment is the heart of human resources management and a crucial feature which differentiates traditional management from modern human resources management (Mowday, 1998). It has big implications for employers to make decision to persist employees, predict employee involvement, absence, turnover, and had a positive effect on organizational competitive advantage (Mowday, 1998).

Organizational commitment is referred to as an attitude that is characterized by following three interrelated dimensions; acceptance of the organization's values, willingness to exert effort on behalf of the organization and desire to remain an employee of the organization (Yousef, 2000; Michael, Court, and Peta, 2009). In an educational study, it was found that teachers who are loyal to the organization demonstrate a strong acceptance of the school's values, tasks, and working manner (Park, Henkin, and Egley, 2005).

When loyal employees enjoy their career progress, they would also feel more satisfied compared to those who do not have career progress. Employees who have stronger commitment to an organization will be stronger guided in actions by organizational values and procedures (Randall, 1987) and have higher performance (Romzek, 1989). It is believed that employee commitment is one of determinant factors for job performance and has become main concern in organizational behavior (Breaux, 2004). Hence, it is hypothesized as follows:

Hypothesis 6: Lecturer who are more committed to organization would show higher performance in HEIs in Indonesia.

Methodology

Sample and data collection

A total of 750 packets of questionnaires were distributed by using snow ball sampling method to public and private universities in Indonesia. Working closely with the universities for three months, about 347 usable questionnaires (matched between raters) were returned and could be further analyzed which was about 46% rate of responses.

About 60% (i.e., 210) of the sample were male and 40% (i.e., 137) were female. This research found that 39% of the respondents work in the public universities and 61% in the private universities. Based on the lecturers' educational attainment level, the majority, i.e., 70% of lecturers hold a master's degree and many, i.e., about 25% had obtained bachelor's degree and only about 4% of lecturers hold doctoral degree and the rest about 1% of the lecturers held only diploma degree or lower. Research participants came from many different backgrounds of knowledge. About 21% of respondents were working in engineering, 18% in business and economics, 10% in medical sciences, 33% in education, and 18% in other different faculties.

Measures

To collect the data related to the three factors influencing job performance, a semi-opened ended questionnaire with self rating was employed. Firstly, to assess reward system practices, an instrument developed by Tsai (2005) was adopted. The instrument was designed in a five-point Likert scale, 1= never to 5= always. There were five aspects of qualified reward system practices are administered. Secondly, an instrument from Rice and Schneider (1994) was administered to measure job satisfaction in education. Respondents were required to indicate their level of agreement on various items with a five-point scale, where 1= strongly dissatisfying to 5= strongly satisfying. A high rating score indicates high level of satisfaction and low rating score indicates high level of dissatisfaction. Thirdly, this research adopted an eighteen-item of organizational commitment instrument developed by Smeenk et al. (2008) from an educational site. Respondents were requested to indicate their level of agreement on various statements regarding lecturer commitment using a six-point scale, 1= never to 5= always. This instrument had three dimensions namely affective, continuance and normative. Finally, Lecturer performance was measured using six items from Smeenk's (2008). Respondents individually assessed their performance by assigning only one choice, 1= very poor to 5= very good. Indicators of each variable are described succinctly in Table 1.

Table 1 provides the results of exploratory factor analysis (EFA) and reliability analysis of instrument rated by lecturer. A Kaiser, Meyer, and Olkin (KMO) test was conducted to determine if the items are measuring a common factor as suggested (Robinet, 2008). KMO test for overall variables was 0.908 greater than 0.50 indicating that instrument rated by lecturer accounts for a marvelous amount of variance. Furthermore, probability associated with the Bartlett test of Sphericity equal to $p < 0.000$ meaning the sample intercorrelation



matrix totally did not come from a population in which its matrix was identical. Both figures indicate that EFA could be carried out.

Table 1. Factor analysis and Reliability Analysis of Lecturer Instrument

Indicators	Component			
	1	2	3	4
Lecturer Satisfaction				
1. Administration and supervision	0.081	0.011	0.814	(0.020)
2. Co-workers	(0.049)	(0.082)	0.748	(0.012)
3. Future career	0.104	0.008	0.774	0.090
4. Institution identification	0.045	0.061	0.766	0.061
5. Financial aspects	0.273	0.025	0.580	0.062
6. Work conditions	0.137	0.022	0.832	0.060
7. Amount of work	0.139	0.053	0.718	0.071
8. Student-lecturer relations	(0.090)	0.064	0.673	0.030
9. Community relations	0.039	0.012	0.700	0.054
Lecturer Commitment				
1. I hope being able to spend the rest of my career in this organization	0.368	0.549	0.001	0.164
2. I enjoy discussing the negative sides of this university with external people	0.108	0.455	(0.005)	(0.165)
3. I feel as if the university's problems are my own	0.135	0.543	0.110	0.093
4. I feel like a part of the family's at this university	0.155	0.670	0.032	0.158
5. This university has a great special meaning for me	0.317	0.656	0.070	0.199
6. I easily become fascinated to another university's facility	0.182	0.409	0.064	0.037
7. I do not care about of what might happen with this university if I quit my present job	0.008	0.629	0.017	0.022
8. It would be very hard for me to leave this university right now	0.325	0.609	(0.037)	0.093
9. My life would be very suffered if I decided to leave this university	0.305	0.272	(0.056)	0.020
10. I could leave this university at no cost at any time	(0.075)	0.626	(0.036)	(0.007)
11. I feel that I have too many reasons to leave this university	0.050	0.674	0.002	0.091

12. I continue to work for this university as leaving would require sacrifice	(0.101)	0.257	(0.055)	0.167
13. For me, leaving from one to another university very often is unusual	0.230	0.314	0.011	(0.060)
14. I do not mind at all when employees move from one to another university	0.067	0.405	0.006	0.068
15. If I got offered a job elsewhere I would leave this university	0.148	0.627	0.001	0.081
16. I believe that loyalty is very important to an university	(0.004)	0.554	(0.041)	0.130
17. For me, to be an entrepreneur is better than as a lecturer	0.010	0.415	0.088	0.060
18. Things about this university are better since I joined with this university	0.339	0.170	(0.091)	0.259
Reward System				
1. There is a strong link between how well I perform my job and receive recognition and praise	0.803	0.032	0.126	0.085
2. There is a strong link between how well I perform my job and receive performance appraisal	0.709	0.126	0.137	0.185
3. There is a strong link between how well I perform my job and receive an increase in pay/salary (including allowance)	0.821	0.136	0.135	0.059
4. There is a strong link between how well I perform my job and receive promotion	0.765	0.134	0.063	0.135
5. University recognition is based on the employees' performance	0.769	0.312	0.044	0.073
6. Compensation increases are based on group performance rather than personal performance	0.502	(0.010)	0.122	0.022
7. University rewards employees who make an extra effort	0.751	0.098	0.065	0.123
8. The organization's reward and incentive compensation scheme / package strongly emphasizes employees' performance	0.769	0.201	0.041	0.102
Lecturer Performance				
1. Teaching performance	0.135	0.231	0.062	0.625
2. Research performance	0.053	0.028	0.084	0.815



3. Publication performance	0.147	0.067	0.048	0.760
4. Public engagement performance	0.074	0.091	0.005	0.678
5. Miscellaneous	0.139	0.058	0.164	0.761
6. Overall performance	0.194	0.194	0.072	0.793
Eigen Value	8.616	4.810	2.993	2.838
Percentage Variance Explained	21.014	11.732	7.299	6.922
Total Percentage Variance Explained	21.014	32.746	40.046	46.968
Alpha Coefficient	0.902	0.846	0.897	0.853
KMO Measure of Sampling Adequacy				0.856
Bartlett's Test of Sphericity	Approx. Chi-Square			7,002.956
	df			0.820
	Sig.			0.000

Loadings of lecturer satisfaction were in the range of 0.580 to 0.814 and nest in one factor indicated that the instrument is unidimensional and valid (Wise, 1998; Hair et al., 2006). About 7.229% of the variation could be explained by lecturer satisfaction. Total of eigen value is 2.993 greater than 1 and Cronbach's Alpha coefficient was 0.897 again could indicate that the instrument was qualified (Nunnally, 1978; Hair et al., 2006).

Eight items from eighteen items administered to measure lecturer commitment did not perform well that were indicated by loading values less than 0.50. Therefore, those eight items were excluded in the next analysis. By entering the remaining ten items, eigen value was 4.810 higher than it was required (Wise, 1998) and Cronbach's Alpha coefficient is 0.846. With coefficient alpha greater was than 0.70, it can be stated that the instrument used to measure lecturer commitment was reliable (Nunnally, 1978; Hair et al., 2006). Variance total explained from the composite factor is 11.732%.

Based on the EFA results, loading value of all items measuring reward system practices were greater than 0.50 indicated that the items were valid in indicating reward system. Moreover, eigen value was 8.616 which was higher than the suggested value (Wise, 1998). Variance explained by the factor was 21.014%. Lastly, Cronbach's Alpha coefficient was 0.902, higher than 0.70, indicating that the instrument was reliable.

Finally, six items measuring lecturer performance loaded at more than 0.50 and nest in one factor. In addition, factor eigen value shown 2.838 and Cronbach's Alpha coefficient is 0.853 could be indicators that lecturer performance instrument was valid and reliable. The composite variable of lecturer performance was able to explain 6.922% variance. The result also showed that Kaiser-Meyer-Olkin Measure of Sampling Adequacy for overall

variables was 0.856 greater than 0.50 and also the probability associated with the Bartlett test of Sphericity for this research was $p < 0.000$ less than the level of significance (0.05), both indicated no violation of the exploratory factor analysis assumptions in this research (Hair et al., 2006).

Results

Descriptive statistics

As shown in Table 2, perceived lecturer performance, rewards satisfaction and commitment range from 3.229 (moderate level) to 4.096 (high level). In more details, lecturers perceive that their commitment and performance are higher than satisfaction they feel and rewards provided by the organization. Based on the skewness values, rewards, commitment and performance variable tend to be perceived high except for satisfaction. In a negatively skewed distribution there is a single peak but observations extending further to the left, in the negative direction, than to the right (Lind, Marchal, and Wathen, 2005).

Table 2. Descriptive Statistics of Reward System, Lecturer Satisfaction, Lecturer Commitment and Lecturer Performance

Variables	Mean	Median	Std. Deviation	Skewness
Reward System	3.229	3.250	0.829	-0.253
Lecturer Satisfaction	3.614	3.667	0.586	0.011
Lecturer Commitment	4.096	4.200	0.602	-0.732
Lecturer Performance	3.633	3.833	0.577	-0.655

The relationship among variables

Based on path analysis shown in Table 3, several findings related to the factors affecting lecturer performance are revealed. Higher rewards significantly improve lecturer satisfaction. Reward system contributes about 22.30% ($p = 0.001$) of the variation of lecturer satisfaction while 77.70% is affected by factors beyond this investigation.

Table 3. Results of Hypotheses Testing

Hypotheses	Independent Variables	Direction	Dependent Variables	Standardized Coefficients	P	Results
H1	Reward System	→	Lecturer Satisfaction	0.223	0.001	Accepted
H2	Reward System	→	Lecturer Commitment	0.393	0.001	Accepted
H3	Reward	→	Lecturer	0.200	0.001	Accepted



	System		Performance			
H4	Lecturer Satisfaction	→	Lecturer Commitment	-0.017	0.738	Rejected
H5	Lecturer Satisfaction	→	Lecturer Performance	0.107	0.035	Accepted
H6	Lecturer Commitment	→	Lecturer Performance	0.221	0.001	Accepted

Higher rewards also improve lecturer performance in higher education institutions in Indonesia ($r= 0.200$; $p= 0.001$) and lecturer commitment to the organization ($r= 0.393$; $p= 0.001$). People willing to perform better in teaching, publication, research, public engagement, and managerial involvement if they have better perception on how they would be rewarded. Moreover, lecturer performance was significantly affected by organization commitment ($r= 0.393$; $p= 0.001$) and lecturer satisfaction ($r= 0.107$; $p= 0.035$). Lecturer who were committed to organization would perform better and stay longer in the organization. Feeling satisfied with the job, its environment and social relationship in work would again improve lecturer performance. The research also revealed that there is no significant impact of lecturer satisfaction on lecturer commitment ($r= -0.017$; $p= 0.738$). It is possibly affected by ineffective performance appraisal and reward system. If the organization has provided good facilities and rewards to people without any reasonable performance appraisal mechanism, people tend to show less commitment to the organization while they are feeling satisfied.

This research also investigates direct effect, indirect effect and total effect of all factors affecting lecturer performance. Total effect of one construct on another is the sum of the indirect and the direct relationship between them (Hair et al., 2006). While direct effect is the relationship linking two constructs with a single row, indirect effect is those relationship that involves a sequence of relationship of two or more direct effects and is represented visually by multiple arrows. Such interaction causes lecturer commitment potentially functions as an intervening variable (Krasner, 1982; Soenens et.al., 2008). There are three indirect effects that could be identified from the model. These include (1) reward system and lecturer commitment ($-0.004= (0.223 \times -0.017)$), (2) reward system and lecturer performance ($0.111= (0.223 \times 0.107)+(0.393 \times 0.221)$) and (3) lecturer satisfaction and lecturer performance ($-0.004= (-0.017 \times 0.221)$). Table 4 provides all coefficients of the relationship between variables in the path analysis.

Table 4. Direct, Indirect and Total Effect of Factor Affecting Lecturer Performance

Independent Variables	Direction	Dependent Variables	Direct Effect	Indirect Effect	Total Effect
Reward System	→	Lecturer Satisfaction	0.223	0.000	0.223

Reward System	→	Lecturer Commitment	0.393	-0.004	0.389
Reward System	→	Lecturer Performance	0.200	0.111	0.311
Lecturer Satisfaction	→	Lecturer Commitment	-0.017	0.000	-0.017
Lecturer Satisfaction	→	Lecturer Performance	0.107	-0.004	0.104
Lecturer Commitment	→	Lecturer Performance	0.221	0.000	0.221

First run of path analysis suggested that the model did not have good fit, since the fitness indices did not meet the requirements. Chi-Square is more than 3, GFI and AGFI are less than 0.9 (Hair et al., 2006) and RMSEA is 0.245 more than acceptable rate (Hooper, Coughlan, and Mullen, 2008). In order to obtain more parsimonious and clearer model, the model was then respecified by excluding non-significant effects from the initial model (Hair et al., 2006; Voorde, Paauwe, and Veldhoven, 2010). In the re-specified model, the relationship between lecturer satisfaction and lecturer commitment is deleted because of its lowest and insignificant coefficient. After the re-specification, the fitness indices were better. After the revision, Chi-Square is more than 0.112, GFI and AGFI consecutively are 1.000 and 0.998 (Hair et al., 2006) and RMSEA is 0.000 which is highly acceptable (Hooper, Coughlan, and Mullen, 2008). All new fitness indices indicate that the revised model is fit. Moreover, all correlation coefficients are also increased. Rewards are found to significantly affect lecturer satisfaction ($r=0.223$; $p= 0.001$), lecturer commitment ($r= 0.390$; $p= 0.001$), and lecturer performance ($r= 0.200$; $p = 0.001$). Impact of lecturer satisfaction and commitment on lecturer commitment are respectively 10.70% ($p= 0.001$) and 22.10% ($p= 0.001$).

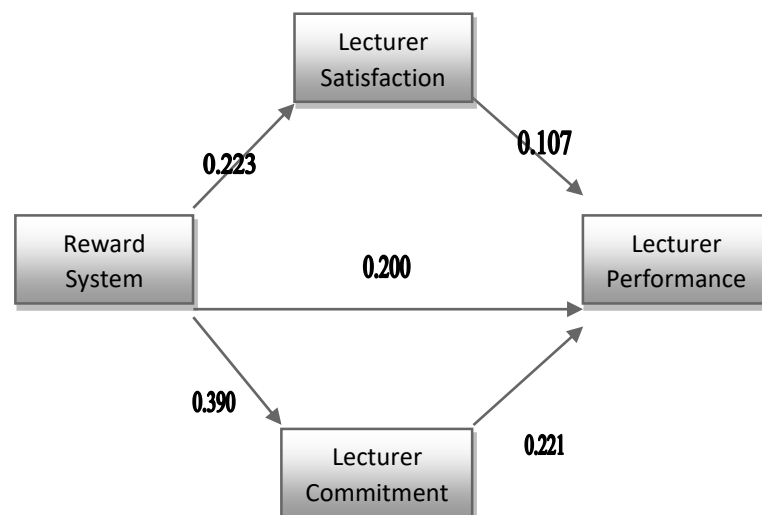




Figure 1. Relationship between Factors Affecting Lecturer Performance

Discussion

This research finds rewards as a determinant factor of lecturer satisfaction. It supports previous related studies on the relationship between reward system and employee satisfaction (Morris and Maloney, 2005; Ali and Ahmed, 2009). Regarding this relationship, Gomez-Mejia et al. (1998) stated that reward system could achieve several objectives including assisting recruitment process, rewarding job performance, and creating job satisfaction. The most important element in creating employee satisfaction is concerned with what they would be rewarded (Bull, 2005; Mathis and Jackson, 2005). It had been also confirmed by Fisher, Schoenfeldt, and Shaw (1993) that the better compensation the more satisfied employee is. Implication of this research findings to the higher education practice in Indonesia is that a better financial reward and non-financial reward could become a good approach to improve lecturer satisfaction.

This research also confirms that a good reward system has a positive and significant impact on employees loyalty to their organization. Variation of rewards would represent employee commitment volatility. Employees' commitment to the organization is represented by their behavior. This research provides evidence that better reward system implementation will improve lecturer commitment in HEIs in Indonesia. McGuinness (1998) had confirmed earlier that a reasonable reward system could foster employee commitment. When organizations are able to fulfill employee needs, employees would show a greater loyalty, and reward makes employees able to meet their needs (Morris and Maloney, 2005). Reward is a yardstick in ascertaining the employees' loyalty (Omolayo and Owolabi, 2007). Therefore, reward is the crucial factor for employees as well as for the organization.

The main objective of providing a better reward system is to push up employee and organizational performance. This research finds that a good perception on reward system would improve lecturer performance in HEIs in Indonesia. This finding provides an evidence from an East Asian Country and supports the findings of previous study undertaken by Curivan (1999) and Tsai (2005). This finding is also relevant to the previous studies that had been conducted in various education and business institutions as well (Marks and Louis, 1997; Clinton and Hunton, 2001). Reward system positively influences employee performance in any organization, especially in developing countries (Idowu, 2007).

Job satisfaction has an important role in increasing employee commitment. Its absence often leads to reduce organizational commitment (Tella, Ayeni, and Popoola, 2007). The success of an organization depends not only on how the organization makes the most of human competencies, but also on how it stimulates commitment to an organization (Azeem, 2010). Employees who feel satisfied with their jobs will care more about the quality of their work and show more loyalty to their organization (Long and Swortzel, 2007). Nevertheless, this research reveals that lecturer satisfaction has no significant effect on lecturer commitment in HEIs in Indonesia. It infers that lecturer satisfaction could not be used as an indicator for predicting lecturer commitment to the organization. This finding is totally contradictory to the findings of

previous studies (Lok and Crawford, 1999; Lahai et al., 2004; Bull, 2005; Azeem, 2010; Le et al., 2010) in which the relationship between job satisfaction and organizational commitment had been investigated and confirmed.

Job satisfaction is an important determinant of job performance (Alzaidi, 2009). Warsi, Fatima and Sahibzada (2009) stated that employees who have high commitment and satisfaction will perform better. Job satisfaction represents employees' attitude. A positive attitude of employee toward his/her job can be used to predict degree of employee performance (Skibba, 2002). This research finds that lecturer satisfaction has a positive and significant effect on lecturer performance in HEIs in Indonesia. This finding implies that to increase lecturer performance, university should be able to nurture a positive attitude of employee towards university administration and supervision system, co-workers, future career, school identification, financial aspects, and work conditions. By doing so, lecturer performance in teaching, research and publication, public engagement, and management involvement activities could be promoted.

Organizational commitment is so important to organization and becomes the main element of human resources management (Mowday, 1998). It is believed to be an antecedent factor affecting job performance (Breux, 2004). In business studies, the organizational commitment level has positive and significant impact on job performance (Yousef, 2000; Park, Henkin, and Egley, 2005). Moreover, teachers who demonstrate strong commitment to their organization have a better acceptance of job tasks and organization values (Park, Henkin, and Egley, 2005) and contribute better to the organizational performance that is represented in less tardiness and absenteeism, increased employment tenure, and increased their performance (Sumrall et al., 2008). Based on the empirical study in an Indonesian higher education context, this research also confirms that lecturers who demonstrate higher loyalty to their organization will perform better.

Conclusion

Pertaining to the main research objectives, it can be generally concluded that reward system, lecturer commitment and lecturer satisfaction have a positive and significant effect on lecturer performance in higher education institution in Indonesia. Lecturer commitment provides the most dominant impact on lecturer performance. Committed employees would be happy to remain with and continue their services to the organization, believe in organization values and work better for the organization (George and Jones, 2002).

As the main issue, lecturer reward system in Indonesia is not a recently contested issue, nor one that is isolated from education contexts. It has become a public concern regarding how lecturers can have a better reward and better linkage with lecturer performance. Research findings entail that performance-based pay (merit system) might be the best approach in Indonesia. A key feature of performance based pay system is the method of assessing and measuring what has been achieved which is designed to motivate people to be loyal to the organization, feel satisfied and to reward greater productivity (Williams and Preziosi, 2004; Bull, 2005; DeVahl, King, and Williamson, 2005; Mathis and Jackson, 2005).



Another issue investigated in this research is related to lecturer performance was lecturer satisfaction. Satisfaction in the workplace is desirable for the employees and results in valuable outcomes for the organizations. It could increase lecturer performance and decrease absenteeism (Cook, 2008). Lecturer satisfaction might be resulted from financial, social, or physical conditions in the workplace.

Managerial Implications

Relating to the research findings and limitations, recommendations are addressed to the education policy makers and researchers. Firstly, providing a reward system that links to performance is believed can be used to motivate and improve lecturer performance in HEIs in Indonesia. Beside teacher portfolios (teaching performance, research, publication, public engagement, and managerial involvement), it is also suggested that reward system should be set based on the group performance, student performance, and classroom observations.

Secondly, it is very urgent for education policymakers and leaders to keep concern on providing lecturers with a supportive administration and supervision system, peers, career in the future, university identification, financial supports, and work conditions. As indicators of lecturer satisfaction, those would significantly promote lecturer performance if they are managed well. Thirdly, loyal lecturers would feel enjoyable to stay in an organization and strongly believe in organizational values and they would perform better for their organizations. In this case, reward system might be the one that could be used to promote lecturer commitment.

Further, performance will be better managed when each indicator of lecturer performance is strongly linked with each indicator of reward system, lecturer satisfaction, and lecturer commitment. Finally, its strong relation between factors certainly will boost lecturer and university performance.

This paper assigns successive integers to the response categories and then simply sum up the raw scores on each item to estimate the true score of each subject on the underlying dimension. This approach usually is classified as classical test theory. Classical test theory has been often criticised for its assumption of equal weight for all items and of equal interval between ordinal response categories (Lin, 2008). A challenge for future research is how to improve generalization index with an alternative measurement model names graded response model. Sukirno & Siengthai (2010) found that graded response model is more precise in estimating statistical parameters in a big sample size and structural equation model analysis than its counterpart (classical measurement model).

Disclosure statement

The Authors reported that no competing financial interest.

Notes on contributors

Sukirno is a professor in managerial accounting at Accounting Education Department, Faculty of Economics, Yogyakarta State University, Indonesia.

References

- Aiken, L.R. (1999). *Personality Assessment, Methods and Practices, (3rd ed.)*. Seattle Toronto: Hogrefe and Huber Publisher.
- Ajila, C. and Abiola, A. (2004). Influence of rewards on workers performance in an organization. *Journal of Social Science* 8(1): 7-12.
- Akinbowale, M.A., Lourens, M.E, Jinabhai, D.C., 2014. Employee Performance Measurement and Appraisal Policy in an Organisation. *Mediterranean Journal of Social Sciences*, Vol 5 No 9, May 2014.
- Ali, R. and Ahmed, M.S. (2009). The impact of reward and recognition programs on employee's motivation and satisfaction: An empirical study. *International Review of Business Research Papers* 5(4): 270-279.
- Alzaidi, A.M. (2009). *A Qualitative Study of Job Satisfaction among Secondary School Head Teachers in the City of Jeddah, Saudi Arabia*. Retrieved 28 August 2009 from http://Research.ncl.ac.uk/ARECLS/vol4_documents/ALZAIDI.pdf.
- Azeem, S.M. (2010). Job satisfaction and organizational commitment among employees in the Sultanate of Oman. *Psychology* 1(4): 295-299.
- Azura, R.Z. and Normah, C.D. (2008). Teacher stress: An examination of factors influencing teaching performance in the rural elementary schools. *Symposium Sains Kesihatan Kebangsaan ke 7* (224 – 225). Hotel Legend, Kuala Lumpur.
- Bhattacharya, S. and Mukherjee, P. (2009). Rewards as a key to employee engagement : A comparative study on I.T. professionals. *ASBM Journal of Management* 2(1): 160-175.
- Breaux, K.T. (2004). *The effect of program commitment on the degree of participative congruence and managerial performance in a budgeting setting*. Dissertation Louisiana State University.
- Brochard, L. (2006). Research, a never-ending jigsaw puzzle. Two new series in Intensive Care Medicine. *Intensive Care Medicine* 32(12): 1923-1924.
- Brodjonegoro, S. (1997). Some thoughts on quality improvement and competitiveness of Higher Education Institutions in Indonesia, *Working Paper of the Academic Leaders of the State and Private Higher Education Institutions Conference*, Jakarta.
- Bull, I.H.F. (2005). *The relationship between job satisfaction and organizational commitment amongst high school teachers in disadvantaged areas in the Western Cape*. Thesis University of the Western Cape.
- Chamundeswari, S. 2013. Job Satisfaction and Performance of School Teachers. *International Journal of Academic Research in Business and Social Sciences* May 2013, Vol. 3, No. 5
- Chughtai, A.A. (2008). *Impact of job involvement on in-role job performance and organizational citizenship behavior*. Ireland: Institute of Behavioral and Applied Management.
- Clinton, B.D. and Hunton, J.E. (2001). Linking participative budgeting congruence to organization performance. *Behavioral Research In Accounting* 13: 127–141.
- Cook, A.L. (2008). *Job satisfaction and job performance: is the relationship spurious?* Thesis Texas A & M University.
- Coughlan, A. (2006). *A guide to managing reward*. Dublin: The Irish Business and Employers Confederation.
- Curivan, D.B. (1999). The causal order of job satisfaction and organizational commitment in models of employee turnover. *Human Resource Management Review* 9(4): 495–524.
- DeVahl, J., King, R., and Williamson, J.W. (2005). Academic incentives for students can increase participation in and effectiveness a physical activity program. *Journal of American College Health* 53(6): 295-298.
- Efanga, Sunday I. Aniedi, Mfon O. Idente, Gomiluk, O. 2015. Organizational Justice and Job Performance of Lecturers in Federal Universities in South-South Zone of Nigeria. *American International Journal of Social Science*, Vol. 4, No. 1; February 2015



- Fisher, C.D., Schoenfeldt, L.F., and Shaw, J.B. (1993). *Human resource management*, (2nd ed.). Boston: Houghton Mifflin.
- George, J.M. and Jones, G.R. (2002). *Understanding and managing organizational behavior*, (3rd ed.). Upper Saddle River, New Jersey: Prentice Hall Incorporation.
- Hair, J.F., William, C.B., Barry, J.B., Rolph, E.A., and Ronald, L.T. (2006). *Multivariate data analysis*. Singapore: Pearson Prentice Hall Incorporation.
- Hakim, Adnan. 2015. Contribution of Competence Teacher (Pedagogical, Personality, Professional Competence and Social) On the Performance of Learning. *The International Journal Of Engineering And Science (IJES)* Volume 4 Issue 2 PP.01-12, 2015.
- Handoko, Yunus. Setiawan, Margono. Surachman, and Djumahir. 2013. Organizational Culture, Job Satisfaction, Organizational Commitment, the Effect on Lecturer Performance. *International Journal of Business and Management Invention*, Volume 2 Issue 12, December, 2013 PP.21-30.
- Hooper, D., Coughlan, J., and Mullen, M.R. (2008). Structural equation modelling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods* 6(1): 53–60.
- Idowu, A.D. (2007). Impact of monetization of reward system on job performance effectiveness of workers in work organizations In South-Western Nigeria. *The African Symposium* 7(2): 104-112.
- Ikhsan, J. and Asih, A.A. (2008). Exploring the ideas of Creating Higher Education Common Space in Indonesia, *Paper presented in The International Conference Series on Raising Awareness: Exploring the Ideas of Creating Higher Education Common Space in Southeast Asia*. Bangkok. Retrieved 12 August 2010 from http://www.rihed.seameo.org/harmonise2008/har_indo.pdf.
- Jones, M.D. (2006). Which is a better predictor of job performance: Job satisfaction or life satisfaction? *Journal of Behavioral and Applied Management* 8(1): 20-43.
- Khan, Anwar. Shah, Ishak Mad. Khan, Sadaf. Gul, Shafiq. 2012. Teachers' Stress, Performance & Resources The Moderating Effects of Resources on Stress & Performance. *International Review of Social Sciences and Humanities* Vol. 2, No. 2 (2012), pp. 21-29
- Krasner, S.D. (1982). Structural causes and regime consequences: regimes as intervening variables. *International Organization* 36(2): 185–206.
- Lahai, M.R., Sail, R.M.D., Muhamad, M., and Suandi, T. (2004). Relationship between the individual facets of job, job satisfaction and organisational commitment. *Pertanika Journal of Social Science and Humanities* 12(1): 11-20.
- Lazear, E.P. (2001). Educational production. *The Quarterly Journal of Economics* 116(3): 777–803.
- Lin, C.J. (2008). Comparisons between classical test theory and item response theory in automated assembly of parallel test forms. *Journal of Technology, Learning, and Assessment*, 6(8), 1-41.
- Lind, D.A., Marchal, W.G., and Wathen, S.A. (2005). *Statistical techniques in business and economics*, (12th ed.). Boston: McGraw-Hill Companies Incorporation.
- Long, J.L. and Swortzel, K.A. (2007). Factors influencing job satisfaction of extension agents in the Mississippi State University Extension Service. *Proceedings of the 2007 AAAE Research Conference* (41-53). Minneapolis, Minnesota.
- Luthans, F. (1998). *Organizational behavior*, (8th ed.). Boston: The McGraw-Hill Companies Incorporation.
- Marks, H.M. and Louis, K.S. (1997). Does empowerment affect the classroom? The implication of teacher empowerment for instructional practice and student academic performance. *Educational Evaluation and Policy Analysis* 19(3): 245-275.
- Mathieu, J.E. (1991). A cross-level nonrecursive model of the antecedents of organizational commitment and satisfaction. *Journal of Applied Psychology* 76(5): 607-618.
- Mathis, R.L. and Jackson, J.H. (2005). *Human resource management essential perspectives*, (3rd ed.). Canada: Thomson South-Western.

- McGuinness, B.M. (1998). The change in employee loyalty. *Nursing Management* 29(2): 45-46.
- Michael, O., Court, D., and Petal, P. (2009). Job stress and organizational commitment among mentoring coordinators. *International Journal of Educational Management* 23(3): 266-288.
- Morris, D. and Maloney, M. (2005). Strategic reward systems: Understanding the difference between 'Best Fit' and 'Best Practice'. *Paper at 3rd Performance and Reward Conference (PARC Conference)*, Manchester Metropolitan University Business School.
- Mowday, R.T. (1998). Reflections on the study and relevance of organizational commitment. *Human Resource Management Review* 8(4): 387-401.
- Njanja, W. L., Maina, R. N., Kibe, L. K.T., and Njagi, Kageni. 2013. Effect of Reward on Employee Performance: A Case of Kenya Power and Lighting Company Ltd., Nakuru, Kenya. *International Journal of Business and Management*; Vol. 8, No. 21/2013.
- Omolayo, B. and Owolabi, A.B. (2007). Monetary reward: A predictor of employees's commitment to medium scale organization in Nigeria. *Bangladesh e-Journal of Sociology* 4(1): 42-48.
- Ostroff, C. (1992). The relationship between satisfaction, attitudes, and performance: Organizational level analysis. *Journal of Applied Psychology* 77(6): 963-974.
- Park, S., Henkin, A.B., and Egley, R. (2005). Teacher team commitment, teamwork and trust: exploring associations. *Journal of Educational Administration* 43(5): 462-479.
- Pattern, T.H. (1977). *Pay: Employee compensation and incentive plans*. London: Collier Macmillan Publisher.
- Pettijohn, C., Linda, P., and Taylor, A.J. (2007). Salesperson perceptions of ethical behaviors: Their influence on job satisfaction and turnover intentions. *Journal of Business Ethics* 78(4): 547-557.
- Randall, D.M. (1987). Commitment and the organization: The organization man revisited. *The Academy of Management Review* 12(3): 460-471.
- Rasian, Z. (2009). Higher education governance in developing countries, Challenges and recommendations: Iran as a case study. *Nonpartisan Education Review* 5(3): 1-18.
- Rice, E.M., and Schneider, G.T. (1994). A decade of teacher empowerment: An empirical analysis of teacher involvement in decision making. *Journal of Educational Administration* 32(1): 43-59.
- Rice, J.K. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes*. Washington: Economic Policy Institute.
- Ristekdikti. 2016. Peringkat Universitas di Indonesia. Diunduh tanggal 7 Juni 2017 dari <http://ristekdikti.go.id/wp-content/uploads/2016/02/klasifikasi20151.pdf>
- Robinett, T.L. (2008). A comparison of moral reasoning stages using a model of hierarchical complexity. *World Futures* 64(5): 468-479.
- Romzek, B.S. (1989). Personal consequences of employee commitment. *Academy of Management Journal* 32(3): 649-661.
- Shinew, K.J. and Weston, R. (1992). A conceptual framework of organizational reward systems: implications for leisure service managers. *Journal of Park and Recreational Administration* 10(4): 1-14.
- Skibba, J.S. (2002). *Personality and job satisfaction: An investigation of Central Wisconsin Firefighters. Interaction between personality and various factors at a local fire department*. Thesis College University of Wisconsin-Stout.
- Smeenk, S., Teelken, C., Eisinga, R., and Doorewaard, H. (2008). An international comparison of the effects of HRM practices and organizational commitment on quality of job performances among European university employees. *Higher Education Policy* 21(3): 323-344.
- Starnes, B.J. (2007). Trust, job satisfaction, organizational commitment, and the volunteer's psychological contract, *The International Journal of Volunteer Administration* 24 (5): 26-30.
- Stone, R.J. (2002). *Human resource management*, (4th ed.). Milton: John Wiley and Sons Australia Ltd.



- Sukirno & Siengthai, S. (2010). The Comparison of Graded Response Model and Classical Test Theory in Human Resource Research: A Model Fitness Test, *Research and Practice in Human Resource Management*, 18(2), 77 - 90.
- Sulistiyono, S.T. (2007). Higher education reform in Indonesia at crossroad. *Paper presented at the Graduate School of Education and Human Development*, Nagoya University, Japan. Retrieved 12 August 2010 from available at <http://www.luk.staff.ugm.ac.id/atur/bhp/HEReform-Singgih.doc>.
- Sumrall, W.H., Cox, D.W., Doss, D.A., and Jones, D.W. (2008). Participative decisions and organizational commitment: A quantitative analysis. *Southern Business Review* 33(1): 39-52.
- Taufiq, Rohmat. 2012. Penilaian Kinerja Dosen Dalam Bidang Belajar Mengajar Di Fakultas Teknik Universitas Muhammadiyah Tangerang. *Faktor Exacta* Vol. 5 No. 1 / 2012 : 77 – 85.
- Tella, A., Ayeni, C.O., and Popoola, S.O. (2007). Work motivation, job satisfaction, and organisational commitment of library personnel in academic and research libraries in Oyo State, Nigeria. *Library Philosophy and Practice* 4: 1-17.
- Tsai, C.J. (2005). Reward and incentive compensation and organizational performance: evidence from the semiconductor industry. *Paper at 3rd Performance and Reward Conference (PARC Conference)*, Manchester Metropolitan University Business School. Retrieved 5 December 2009 from <http://www.business.mmu.ac.uk/parc/2005/tsai.pdf>.
- Voorde, K.V.D., Paauwe, J., and Veldhoven, M.V. (2010). Predicting business unit performance using employee surveys: Monitoring HRM related changes. *Human Resource Management Journal* 20(1): 44-63.
- Warsi, S., Fatima, N., and Sahibzada, S.A. (2009). Study on relationship between organizational commitment and its determinants among private sector employees of Pakistan. *International Review of Business Research Papers* 5(3): 399-410.
- Webometric. (2010). *Ranking web of world universities in Asia*. Retrieved 5 January 2010 from http://www.webometrics.info/top100_continent.asp?cont=asia.
- Wicaksono, T.Y. and Friawan, D. (2008). Recent development of higher education in Indonesia: Issues and challenges. *Paper prepared for Discussion at the DPU East Asean Bureau of Economic Research EABER Conference on Financing Higher Education and Economic Development in East Asia*, Bangkok. Retrieved 7 January 2010 from http://www.eaber.org/intranet/documents/80/.../WPS_DPU_2008_45.pdf.
- Williams, H.A. and Preziosi, R.C. (2004). An analysis of the proposed performance based pay system for academic staff at the university of technology, Jamaica. *Journal of College Teaching and Learning* 1(8): 27-36.
- Wise, P.G. (1998). Rating differences in multi-rater feedback: A new look at an old issue. *International Personnel Management Association Assessment Council's (IPMAAC) Conference on Professional Personnel Assessment*, Chicago, Illinois. Retrieved 8 October 2009 from <http://www.ipacweb.org/conf/98/wise.pdf>.
- World Bank. (2000). *Higher education in developing countries peril and promise. The international bank for reconstruction and development*. Washington: The World Bank.
- Yousef, D.A. (2000). Organizational commitment: a mediator of the relationship leadership behavior with job satisfaction and performance in a non-western country. *Journal of Managerial Psychology* 15(1): 6-24.
- Zembylas, M. and Papanastasiou, E. (2004). Job satisfaction among school teachers in Cyprus. *Journal of Educational Administration* 42(3): 357-374.
- Zhang, A. and Fang, Y. (2009). *Teachers' performance and its attitudinal antecedents*. Retrieved 29 August 2009 from <http://www.aare.edu.au/04pap/fan04091.pdf>.