Effect of Work Overload on Job Satisfaction, Effect of Job Satisfaction on Employee Performance and Employee Engagement (A Case of Public Sector University of Gujranwala Division)

Sobia Ali¹ and Yasir Aftab Farooqi²

¹National College of Business Administration & Economics (NCBA&E), Pakistan ²Department of Management Sciences, University of Gujrat, Pakistan ¹sobia_ali13@yahoo.com, ²yasir_farooqi@hotmail.com

Abstract— The purpose of this study is to identify the effect of work overload on Job Satisfaction and effect of job satisfaction on employee performance and employee engagement. Literature supported the relationship between work overload and Job satisfaction, the relationship of job satisfaction with employees' performance and employee engagement. To measure this, data was collected with the help of questionnaires. The questionnaires distributed among the sample size of 207 employees of Public Sector University of Gujranwala Division including teaching faculty and non teaching staff. Data was analyzed by using SPSS software. This study revealed the relationship of work overload on job satisfaction of the employee which is most important thing of any organization. This study provided further guidance to organization for making strategies to cope with these prevailing. So this study is important to overcome the problem of work overload which affects the job satisfaction which ultimately affects employee performance and employee engagement.

Keywords– Work Overload, Job Satisfaction, Employee Performance and Employee Engagement

I. INTRODUCTION

The main focus of this research is to find the relationship of employee work overload and job satisfaction, between job satisfaction and employee performance, employee engagement. Employee dissatisfaction in consequences generate outcome of reduction in employee performance (Sehrish Tahir1, 2012). This study is important because work overload is crucial issue of any organization now a day. This problem increases day by day that produce stress and work life conflict and decreases the morale of the employees which ultimately decreases the performance and reduces the employee involvement in their job.

The area of this research is Public Sector University of Gujranwala Division because employees that include teaching and non teaching staff are engaged in extra work but no proper incentive and pay plans are given to their employees for extra work load which ultimately results in low job satisfaction. While working in University employees are unable to relax or function properly as the result of experiencing emotional or mental stress and work overload.

In this research study, one concept work overload is defined as being asked to do too much work and being asked to do work that is too difficult (admin, 2011). In this research study second concept of Job satisfaction is defined as a positive feeling about one's job resulting from an evaluation of its characteristics (Robbins S. P., Judge T.A. 2007). In this research another important concept of Employee Engagement is defined as an individual's involvement with, satisfaction with, and enthusiasm for the work they do (Robbins S. P., Judge T.A. 2007).

A. Problem Statement

Employee performance, employee engagement and job satisfaction is important for every organization. These attitudes are affected by many variables like intellectual & physical abilities, their qualification, training, experience, culture, reward systems, career progression opportunities, coworkers behaviors, authority and responsibility, work overload and structure of the organization. Practically employees face main problem of work overload. Every employee face work overload, stress at work and personal life which ultimately affect their performance and job satisfaction (Syed Saad Hussain Shah, 2011). So the problem statement for this research is formulated as follows:

"What is impact of work overload on job satisfaction and impact of job satisfaction on employee performance and employee engagement".

B. Objectives

Main Objective: To find the relationship of work overload on job satisfaction and relationship of job satisfaction on employee performance and employee engagement.

Sub Objectives:

- To find the relationship of work overload and job satisfaction.
- To find the relationship of job satisfaction and employee performance.
- To find the relationship of job satisfaction and employee engagement.

II. LITERATURE REVIEW

A. Job Satisfaction

The concept of the job satisfaction consists of the feelings and attitudes one has about one's job. These attitudes include all aspects of negative or positive feelings about a particular job which are likely to contribute to the development of feelings of satisfaction (or dissatisfaction) (Riggio, 2003). It can also be referred to as an employee's overall sense of well being at work (Ang, 2003).

B. Employee Performance

Performance is total expectation of organization from separate behavior samples of each person during specific period of time (Motowidlo, 2003). Job performance is a set of behavior which person show in relation to his job or, in other word, amount of efficiency gained due to the person job type (training, producing or servicing) (Rashidpoor, 2000). Job performance is the same person efficiency in his job according to his legal tasks and show amount of effort and successfulness of that person (Babu, et.al., 1997).

C. Employee Work Overload and Job Satisfaction

This research study showed that work overload lead to poor performance of the employees which has ultimately lead toward the employee job dissatisfaction. If effective incentives plans and proper training is given to the employees than their performance can be increased and employees become more satisfied from his job (Tahir, Yusoff, Azam, Khan, & Kaleem, 2012). The research found that occupational stress that occurred due to some factors like work overload, lack of job security, work relations with others has negatively correlated to job satisfaction (Paktinat & Rafeei, 2012). The researcher found in this study that stress in job due to different issues like work overload, coworkers behavior, etc become harmful not for himself but for the organization which negatively affected the job satisfaction. This stress can be reduced by giving training, orientation, proper pay package equal employee opportunities (Obiora & Iwuoha, 2013). This research found level of job satisfaction in relation of role overload in gender in the turkey education universities. Research found that females are less satisfied from their jobs in relation to role work overload due to home responsibilities and job responsibilities as well. Role work overload negatively related to job satisfaction (Bozkurt, Aytac, Bondy, & Emirgil, 2012). Stress is the big issue of the organization which occur due to tension work overload etc. finding of this research shows that stress of the employees can be minimized by some appraisal plans, effective pay plans, fix day to day plans, these thing reduce the employee stress and ultimately increased the employee job satisfaction (Vimala, 2013).

D. Job Satisfaction and Employee Performance

Employees of transport sector motivated by proper training, reward system, revenue earned, personal polices, improved promotion avenues all these things link to job satisfaction that increased the employee performance in the transport sector (Ram, 2013). Research of psychological literature examined the attitudes-nonattitudes and their relationship with job satisfaction and job performance. Attitudinal consistency affects the job satisfaction in relation of job performance (Schleicher, Watt, & Greguras, 2004).

This research showed that job satisfaction has meaningful relationship within role performance and innovative job performance (Dizgah1, Chegini2, & Bisokhan, 2012). This research determined the relationship between job satisfaction and job performance and found that there is positive relationship between job satisfaction and job performance (Judge, Thoresen, Bono, & Patton, 2001). This research studies main purpose to find the relationship between job satisfaction and job performance and found that job satisfaction and job performance and found that job satisfaction and job performance has modest correlation. (Berghe, 2011).

E. Job Satisfaction and Employee Engagement

Employee engagement and job satisfaction has impact on any organization which leads to turnover and absebtism in term of low performance and low productivity. For engaging employees organization used better compensation plans and strong relationship with coworkers. To hold employee happy and engaged organization used HR practices its and SHRM customized services with higher satisfaction and higher engagement (Kennedy & Malveaux, 2012). This research study found the relationship between job engagement and organizations citizen behavior and counterproductive behavior. Result shows that there is positive relationship between job engagement and JCB and negative relationship between job engagement and counterproductive behavior (Ariani, 2013).

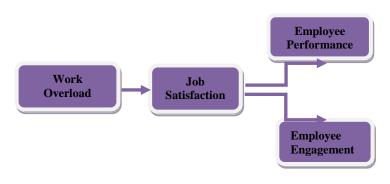


Figure 1: Theoretical framework

III. THE STUDY

Hypothesis

H1 = There is negative relationship between employee work overload and job satisfaction

H2 = There is positive relationship between job satisfaction and employee performance

H3 = There is positive relationship between job satisfaction and employee engagement

A. Design

Research design is a logical plan of research, a strategy of inquiry, that explain the way research is conducted from the underlying assumptions to research design, and data collection (Myers, 2009).

Positivism: The positivist paradigm of exploring social reality is based on the philosophical ideas of the French Philosopher August Comte. According to him, observation and reason are the best means of understanding human behavior; true knowledge is based on experience of senses and can be obtained by observation and experiment. Positivists assume that the reality is objectively given and is measurable using properties which are independent of the researcher and his or her instruments; in other words, knowledge is objective and quantifiable. Positivistic thinkers adopt scientific methods and systematize the knowledge generation process with the help of quantification to enhance precision in the description of parameters and the relationship among them. Positivism is concerned with uncovering truth and presenting it by empirical means (Henning, Van Rensburg and Smit, 2004). According to Walsham (1995b) the positivist position maintains that scientific knowledge consists of facts while its ontology considers the reality as independent of social construction. If the research study consists of a stable and unchanging reality, then the researcher can adopt an 'objectivist' perspective: a realist ontology - a belief in an objective, real world - and detached epistemological stance based on a belief that people's perceptions and statements are either true or false, right or wrong, a belief based on a view of knowledge as hard, real and acquirable; they can employ methodology that relies on control and manipulation of reality. As my research also shows the reality of impact of work overload on job satisfaction so this research will follow the positivism paradigm.

Epistemology: Epistemology concerns itself with ways of knowing and how we know. The word is derived from the Greek words epistéme and logos – the former term meaning "knowledge" and that latter term meaning "study of". Hence, the word parsed into English implies the nature, source, and limitations of knowledge. As such, the study of epistemology historically has dealt with the following fundamental questions:

What is knowledge, and what do we mean when we say that we know something? What is the source of knowledge, and how do we know if it is reliable? What is the scope of knowledge, and what are its limitations? And in this research study epistemology is the how we proved the relationship of work overload and job satisfaction and between job satisfaction and employee performance, employee engagement by collecting information from University employees.

Methodology: The research method is a strategy of enquiry, which moves from the underlying assumptions to research design, and data collection (Myers, 2009). In this research study we were used these ways to prove the relationship developed.

Population: Entire group of persons that conform to certain specification that are of interest to the researchers and on which results of the study can be generalized is termed as population (Polit & Hungler, 1999). Our target population was teaching faculty and non-teaching staff of (BPS-16 and above) of Public Sector University of Gujranwala Division which was estimated about 430.

Sample Size: Sample is termed as portion of research population selected to make a part of the study and are envoy of the entire research population (LoBiondo-Wood & Haber, 1998). Our sample was 207 employees of Public Sector University of Gujranwala Division teaching faculty and non-teaching staff whose result were generalize on whole target population of university. Sample size is determined using (Yamane, 1973) formula:

$$n = \frac{N}{1 + (N \times e^2)}$$

n = Sample Size.

N = Total Population.

e = Margin of Error.

1 =Constant Number.

$$n = \frac{430}{1 + (430 \times 0.05^2)}$$
$$n = 207$$

B. Sampling Design

In this research study population was divided into two strata of teaching faculty and non-teaching staff that include 269 teaching faculty members and 161 non-teaching member. In total population, 207 sample drawn from strata's in which 42% samples drawn from teaching faculty strata and 58% sample drawn from non-teaching strata of university by using proportionate stratified sampling.

C. Measures

Survey method has been used for data collection method in which questionnaire was used as instrument of survey method and questionnaire has been distributed to sample of the target population.

First part of questionnaire deals with work overload has been measured by 4 items taken from (Buckingham, 2004) work. Each item was measured by using a five-point scale ranging from strongly disagree which was weighted as 1 to Strongly Agree which was weighted as 5. The average of 4 items has been used as the total scale score for job work overload by each respondent. Second part deal with job satisfaction has been measured by 18 items taken from

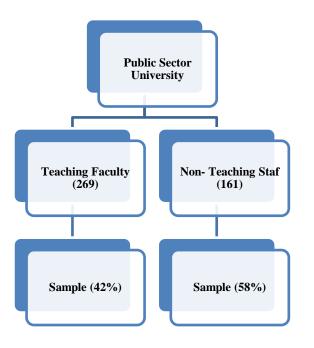


Figure 2: Sampling design

(Drukpa, 2013) work. Each item were measured by using a five-point scale ranging from Strongly Disagree which was weighted as 1 to Strongly Agree which was weighted as 5.

The average of 18 items has been used as the total scale score for job satisfaction by each respondent. Third part deal with employee performance has been measured by 13 items taken from (Dizgah, et al., 2012) work. Each item were measured by using a five-point scale ranging from Strongly Disagree which was weighted as 1 to Strongly Agree which was weighted as 5. The average of 13 items has been used as the total scale score for employee performance by each respondent. Forth part deal with employee engagement has been measured by 8 items taken from (Wilson, 2009) work. Each item were measured by using a five-point scale ranging from Strongly Disagree which was weighted as 1 to Strongly Agree which was weighted as 5. The average of 8 items has been used as the total scale score for Employee Engagement by each respondent. The fifth part of questionnaire constitutes demographic information gender, department/faculty, grade, marital status, job category, appointment nature and job experience are included in this section.

IV. RESULTS

A. Reliability and Validity

Values of cronbach's alpha for this case study are given in the Table 1 in order to examine the reliability of the data. Cronbach's alpha is a measure use to check the consistency of the data. If the value of cronbach's alpha near to 1, it showed that data is reliable. For this study, values of Cronbach's alpha for individual constructs vary from 0.784 to 0.884. These values of cronbach's alpha indicate that each construct possesses high reliability. Whereas, the reliability estimate for the overall questionnaire is .873, representing the high reliability of data collected for this study.

B. Data Analysis

Descriptive Statistics (Demographic Profile of the **Respondents**): Total 207 questionnaires were distributed to the public sector university Demographic profile of the respondents (including information about their gender, department/faculty, grade, marital status, job category, appointment nature and job experience) is presented in Table: 2. The demography of respondents show that out of 207 respondents, 114 (55.1%) respondents were males, 93 (44.9%) were females. In sample 43 (20.8%) were belong to FMAS (Faculty of Management and Administration Sciences) department 29 (19%) were belong to Social Sciences, 37 (17.9%) were belong to Sciences, 27 (13%) were belong to CS&IT, 26 (12.6%) were belong to Engineering, 9 (4.3%) were belong to MC and 36 (17.4%) were belong to Admin. Whereas, 68 (32.9%) were at BPS-16, 67 (32.4%) were at BPS-17, 44 (21.3%) were at BPS-18 and 28 (13.5%) were at BPS-19. In respondents 94 (45.4 %) were single while, 111 (53.6 %) were married. Whereas, 87 respondents (42 %) were belong to teaching faculty while, 120 (58 %) respondents were belong to non-teaching faculty. 66 (31.9 %) respondents, out of 325, were permanent, 79 (38.2%) respondents were contractual employees and 62(30 %)respondents were daily wages employees). And lastly, 45 (21.7 %) respondents have job experience of less than one year, 91 (44%) respondents have 1-3 years job experience and 71 (34.3 %) respondents have more than 3 years job experience.

Descriptive Summary: This case study was based on 43 items. Responses of all items were measured on five point Likert scale ranging from 1 to 5. Whereas, the descriptive summary for the each construct is given in table 3:

Mean scores of each variable is within a range 3.512 (Employee Engagement) to 3.71 (Work Overload). It means that respondents are almost agreeing with the existence of all of these variables in our society. The value of standard deviation varies from 0.5689 to 0.7841.

C. Inferential Statistics

Correlation: Pearson correlation shows relationship among variables. The table 4 describes about the correlation values among the constructs of this study. From the analysis, shows that work overload has significant negative relationship with an job satisfaction $(-.163^*)$. Job satisfaction have highly significant positive relationship with employee performance $(.462^{**})$. Job satisfaction also have highly significant positive relationship with employee engagement $(.369^{**})$. Therefore, it could be concluded that the higher the job satisfaction higher the employee performance and higher the employee engagement.

D. Regression Analysis

Table 5 shows the results of the regression analysis for *hypothesis 1:* work overload and employee performance. The value of R^2 is 0.027 which means that 2.7% variations in Dependent Variable (Job Satisfaction) is explained by the Independent Variables (Work Overload). The value of F is 5.347 and P-value=0.022 in ANOVA indicates a significant importance of the model. Whereas, the t and p-values in coefficient table shows that Work Overload (t = -2.312; P = 0.022) have significant relationship with job satisfaction and hence prove our hypothesis stated above. The value of β coefficient for work overload is -.163 indicating negative relationship.

The regression equation from these statistics can be drawn up like this:

> Work Overload (y) = $\alpha + \beta X_1$ Work Overload (y) = 71.606 - .163 (X₁)

Hypothesis 2:

Table 6 shows the results of the regression analysis for *hypothesis 2:* job satisfaction and employee performance. The value of R^2 is 0.214 which means that 21.4% variations in Dependent Variable (Employee Performance) is explained by the Independent Variables (Job Satisfaction). The value of F is 54.032 and P-value=0.000 in ANOVA indicates a significant importance of the model. Whereas, the t and p-values in coefficient table shows that Job Satisfaction (t = 7.351; P = 0.000) have significant relationship with employee performance and hence prove our hypothesis stated above. The value of β coefficient for job satisfaction is 0.462 indicating positive relationship.

The regression equation from these statistics can be drawn up like this:

Job Satisfaction (y) = α + BX₁ (Employee Performance)

Job Satisfaction (y) = 35.994 + 0.462 (X₁)

Hypothesis 3:

Table 7 shows the results of the regression analysis for hypothesis 3: job satisfaction and employee engagement. The value of R^2 is 0.136 which means that 13.6% variations in Dependent Variable (Employee Engagement) is explained by the Independent Variables (Job Satisfaction). The value of F is 31.372 and P-value=0.000 in ANOVA indicates a significant importance of the model. Whereas, the t and p-values in coefficient table shows that Job Satisfaction (t = 5.601; P = 0.000) have significant relationship with employee engagement and hence prove our hypothesis stated above. The value of β coefficient for job satisfaction is 0.369 indicating positive relationship.

The regression equation from these statistics can be drawn up like this:

> Job Satisfaction (y) = α + BX₁ (Employee Engagement) Job Satisfaction (y) = 17.033 + 0.369 (X₁)

V. CONCLUSION & RECOMMENDATIONS

Work overload is a big concern for all the organizations. Some people experienced pressure due to work overload, some may experiences job dissatisfaction. Based on the finding of the study, there are a few key points that can be used to conclude this research paper. It is very important that the organization understands the needs of its employees and provide what is best for the employees. Constant appraisal programs and appreciation should be given to reinstate and motivate the employees. Other than this, some of the measures can be taken up by the work force in order to cope with the work overload include. Unhealthy job work overload among the people responsible in assisting the future generation's service will ultimately affect their intellectual and social abilities. By taking some appealing measures like improving technology by using advance technology, were lessen the work overload at individual level.

VI. SIGNIFICANCE OF THE STUDY

This study reveals the relationship of work overload on job satisfaction and relationship of job satisfaction on employee performance, employee engagement which is most important thing of any organization. This study provides further guidance to organization for making strategies to cope with these problems. When efficient strategies are implemented like training, job rotation, reward system etc then problem of work overload and stress is minimized. So this study is important to overcome the problem of work overload which affect the job satisfaction, employee performance and employee engagement.

VII. LIMITATIONS

Major limitation faced was time shortage. The information provided by the respondents is not favorable due the personal problems. The scope of research was restricted because target population was limited to "employees of one Public Sector University of Gujranwala Division.. This research is a case study, so results could not be generalized to whole only on Public Sector University.

REFERENCES

- Ariani, D. W. (2013). The Relationship between Employee Engagement, Organizational Citizenship Behavior, and Counterproductive Work Behavior. *International Journal of Business Administration* 4(2), 46-56.
- Ashfaq, S., Mahmood, Z., & Ahmad, M. (2013). Impact of Work-Life Conflict and Work over Load on Employee Performance in Banking Sector of Pakistan. *Middle-East Journal of Scientific Research 14(5)*, 688-695.
- Bashir, U., & Ramay, M. I. (2010). Impact of Stress on Employees Job Performance A Study on Banking Sector of Pakistan. *International Journal of Marketing Studies* 2(1).
- Berghe, J. V. (2011). Job Satisfaction and Job Performance at the Workplace (Degree Thesis International Business).
- Bozkurt, V., Aytac, S., Bondy, J., & Emirgil, B. F. (2012). Job Satisfaction, Role overload and Gender in Turkey. 51-67.

- Buckingham, D. A., (2004). ASSOCIATIONS AMONG STRESS, WORK OVERLOAD, ROLE CONFLICT, AND SELF-EFFICACY IN MAINE PRINCIPALS (Doctor of Education Thesis, University of Maine).
- Charles Arinze Obiora, V. C. (2013). WORK RELATED STRESS, JOB SATISFACTION AND DUE PROCESS IN NIGERIAN PUBLIC SERVICE. *European Scientific Journal*.
- Charles Arinze Obiora, V. C. (2013). WORK RELATED STRESS, JOB SATISFACTION AND DUE PROCESS IN NIGERIAN PUBLIC SERVICE. *European Scientific Journal*.
- Dizgah, M. R., Chegini, M. G., & Bisokhan, R. (2012). Relationship between Job Satisfaction and Employee Job Performance in Guilan Public Sector. *Journal of Basic and Applied Scientific Research* 2(2), 1735-1741.
- Drukpa, S. (2010). Job satisfaction of secondary school teachers in Thimphu district of Bhutan (Master Thesis. Mahidol University).
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction-Job performance Relationship: A Qualitativ and Quantitativ Reviw. *Psychological Bailetin* 127(3), 376-407.
- Kennedy, K., & Malveaux, J. (2012). 2012 Employee Job Satisfaction and Engagement. Society for Human Resource Management.
- Obiora, C. A., & Iwuoha, V. C. (2013). WORK RELATED STRESS, JOB SATISFACTION AND DUE PROCESS IN NIGERIAN PUBLIC SERVICE. European Scientific Journal 9(20), 214-232.

- Paktinat, D., & Rafeei, I. (2012). Studying the effect of stress factors of on the amount of customers dissatisfaction with using Structural Equation Model (A Case from insurance companies in Kerman). *INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS 3(12)*, 108-116.
- Ram, D. P. (2013). Relationship between Job Satisfaction and Job Performance in the Public Sector-A Case Study from India. *International Journal of Academic Research in Economics and Management Sciences* 2(2), 16-35.
- Schleicher, D. J., Watt, J. D., & Greguras, G. J. (2004). Reexamining the Job Satisfaction–Performance Relationship: The Complexity of Attitudes. *Journal of Applied Psychology* 89(1), 165–177.
- Shah, S. S., Jaffari, A. R., Aziz, J., Ejaz, W., Haq, I. U., & Raza, S. N. (2011). Workload and Performance of Employees. *INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS* 3(5), 256-267.
- Tahir, S., Yusoff, R. b., Azam, K., Khan, A., & Kaleem, S. (2012). The Effects of Work Overload on the Employees' Performance in relation to Customer Satisfaction: A Case of Water & Power Development Authority, Attock, Pakistan. World Journal of Social Sciences 2(1), 174-181.
- Vimala, D. A. (2013). Effect of Stress and Work culture on Job Satisfaction with Special reference to employees in Public Sectors. *Indian Journal of Applied Research* 3(3), 241-242.
- Wilson, k. (2009). A Survey of Employee Engagement (PHD thesis. Unversity of Missouri_Cohumbia).

Table 1		
Constructs	Number of Items	Cronbach's Alpha
Work Overload	4	0.784
Job Satisfaction	18	0.864
Employee Performance	13	0.85
Employee Engagement	8	0.884
Overall Questionnaire	43	0.873

Table 2		
Respondent Demographics	Frequency	Percent
Gender		
Male	114	55.1
Female	93	44.9
Department/Faculty		
FMAS	43	20.8
Social Sciences	29	14
Sciences	37	17.9
CS&IT	27	13
Engineering	26	12.6
MC	9	4.3
Admin	36	17.4
Grade		
BPS-16	68	32.9
BPS-17	67	32.4
BPS-18	44	21.3
BPS-19	28	13.5
Marital Status		
Single	94	45.4
Married	111	53.6
Job Category		
Teaching	87	42
Non teaching	120	58
Appointment Nature		
Permanent	66	31.9
Contractual	79	38.2
Daily-Wage	62	30
Job Experience		
Less than 1 year	45	21.7
1-3 years	91	44
more than 3 years	71	34.3

Table : 3 Descriptive Statistics									
Constructs N Minimum Maximum Mean Std. Deviation									
Work Overload	207	1.77	5	3.71	0.6589				
Job Satisfaction	207	1.77	5	3.569	0.6523				
Employee Performance	207	1.43	4.89	3.654	0.5689				
Employee Engagement	207	1.71	5	3.512	0.7841				

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY SCIENCES AND ENGINEERING, VOL. 5, NO. 8, AUGUST 2014

Table 4					
	Corr	elations			
		WO	JS	EP	EE
Work Overload					
Job Satisfaction		163*			
Employee Performance		0.109	.462**		
Employee Engagement		-0.094	.369**	.345**	

 $\ast.$ Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Ta	ble 5							
Hypothesis	DV	IV	\mathbb{R}^2	F	Sig.	β	Т	Sig.
H1	JS	WO	.027	5.347	.022 ^a	163	-2.312	.022

Table	6							
Hypothesis	DV	IV	\mathbb{R}^2	F	Sig.	β	Т	Sig.
H1	EP	JS	0.214	54.032	$.000^{a}$	0.462	7.351	0

Table	7							
Hypothesis	DV	IV	\mathbb{R}^2	F	Sig.	β	Т	Sig.
H1	EE	JS	.136	31.372	.000 ^a	.369	5.601	.000