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Job Demands and Resources as Antecedents of Strain: a Mediated Moderation Model of Work Engagement and Job Control

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Abstract:

The study aims to reveal the relationship between work demands and strain and its outcomes as well as the moderating-mediating roles of job-control and work engagement in the relationships between independent and dependent variables among university lecturers at University of Dammam, through applying a descriptive-correlative design by applying questionnaires on a study population consisting of 217 university lecturers who were selected randomly. The results revealed a direct impact of job demands on psychological strain. Furthermore, the results partially supported the moderating-mediating effects on the relationships between independent and dependent variables of the study. However, this research discussed the implications of these findings with respect to the development and applications of the job-demands resources model.

Keywords: job demands, work engagement, job control, strain, psychological outcomes.





Introduction:

Stress and strain elements have been considered as important topics in the organizational psychology field. Although, the impact of work stress on individual strain has received some attention, little has been given to the stress-strain relationships among people in general and university's lecturers in particular (Idris, 2011). Recently, a research showed that work stress which refers to "as a process that appears in individuals and involves stressors causing strain, which eventually results in many outcomes like cynicism, decreased organizational efficacy, decreased job commitment, and thinking to quit", is negatively correlated with people performance as well as their attitude and behavior (Shaufeli, Bakker, & Salanova, 2006). Stress also described as a process that appears in individuals and involves stressors causing strain, which eventually results in many outcomes like cynicism, decreased organizational efficacy, decreased organizational commitment, and intention to leave (Idris, 2011). Job demand-resource model (JDR) (Schaufeli & Bakker, 2004) postulates that every occupation has distinct factors linked with job stress and these can be categorized into two, namely, job demands and job resources (Bakker & Demerouti, 2007). The effect of job demands namely role overload occurs when the role expectations are higher than the abilities and motivation of the individual to perform a task (Idris, 2011). Role ambiguity occurs when there is no authority for individuals on the way their assigned jobs are performed (Ashforth & Lee, 1990). Lastly, role conflict refers to the demands and expectations that the role falls short of matching (Ashforth & Lee, 1990).

Generally, work-related stress is known as psychological strain as there may be various negative or positive distinct responses to stress. Significant degrees of strain are related to feeling an intention to leave (Janssen, De-Jonge, & Bakker, 1999), professional efficacy (Evers & Tomic, 2003) and organization commitment (Saks, 2006).

Problem of the Study:

Higher education has been known to combat stress and burnout issues among faculty members (Chand & Monga, 2007; Idris, 2011). However, several factors contribute to job stress such as work overload, role ambiguity and role conflict and difficult social relationship. Although, job of lecturers is very important, but the pressures of psychological and social as well as personal factors have burdened





the lecturers enough which affect their psychological, mental, physical and performance badly. Research dedicated to examining university lecturers revealed that lecturers are likely to be impacted by psychological strain in comparison to the general professional population (Idris, 2011; Chand & Monga, 2007). However, several studies supported that occupational stressors contribute to organizational inefficiency, high level of turnover among staff, high level of strain which in turn make individual to burnout in the workplace and job dissatisfaction as well as intention to leave (Idris, 2011). Ahsan, Abdullah, Fie, & Alam (2009) reported that university staff having high level of stress because of job demands, more work overload which affect their physical and mental health. Huda (2004) also supported that university staff in Malaysia reported high level of job strain. It can be concluded that university staff facing issues at their workplace related to stress and strain.

Most occupational stress models suggest that environmental and personal factors would serve as a buffering factors that mitigates/strength the negative/positive relationship between stressors and strain (Rath, 2011). For instance, Job control roles have recently been contended as a moderator variable between stress- strain process for both workers and academics (Idris, 2011). For example, Huang, Chen, Huang and Yang (2009) stated that high job control low leads to positive results and low job control leads to impaired health and job attitudes. As one of the most impactful factor in the work context, work engagement has a strong connection to various positive and negative outcomes. However, Schaufeli and Bakker (2004) stated that work engagement mediates the job resources-positive outcomes relationship. As such, the research proposes that stress would be correlated with strain, and lecturers' engagement, a typical type of work resource (Hopkins & Gardner, 2012; Karatepe, 2012), would serve as the mediating mechanism in such relationship. Although, previous studies indicated a relationship exist between stress and strain, little is known about whether strain is linked to other variables especially work and personal one (Idris, 2011). The current study contributed to the theoretical and empirical literature in several aspects. Firstly, although the connection of stress to work strain has been examined (Idris, 2011), the results of the literature for stress and strain relations among university lecturers remain unclear. Furthermore, previous literature focused only on the negative results but not on the positive ones, addressing this issue would be important both theoretically and practically. As such, the result provides a first insight into whether, how and when job stain status may connect to internal and external resources, and the potential of work engagement mechanism through the link between strain with internal and





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external resources. Therefore, the findings of this study not only provide some empirical supports to the JDR model, but also extend the model by including job control and work engagement as a key internal and external resource.

Questions of the Study:

Four research questions were asked about:

- What is the relation between academicians' levels of stress and strain?
- What are the outcomes of the strain among academicians?
- Does job control moderate the relationship between stressors and strain?
- Does work-Engagement mediate the relationship between strain and its outcomes?

Objectives of the Study:

The current research investigated job demands-strain relations as well as investigated the possible moderating effect of job control and its potential mechanism as a key personal resource according to the job demand-resource model (JDR). The current study also contributes to the JDR model by investigating the possible mediating factor of work engagement towards the relationships between strain and its outcomes. Therefore, three objectives have been highlighted as follows:

- To investigate the relationship between stressors and strain.
- To identify the outcomes of strain among academicians.
- To examine the moderating role of job control on the relationship between stressors and strain among academicians.
- To examine the mediating role of work-engagement on the relationship between strain and its outcomes among academician.





Operational Definition:

Job Stress: An interactional process between environmental system and the adaptive resources of the individual system (Lazarus & Folkman, 1984).

Strain: strain defined as psychological outcomes such as depleted emotional resources and lack of energy that appears in reaction to organizational demands (Lee & Ashforth, 1996).

Role overload: role overload has been described situation in which individual feel that there too many responsibilities expected of them in light of the time available and their abilities (Rizzo, House, & Lirtzman, 1970).

Role Conflict: a status occurs when individual is confronted with incompatible role expectation in the various social statuses they occupy (Rizzo et al., 1970).

Role Ambiguity: the degree to which clear information is lacking about the job responsibilities (Rizzo et al., 1970).

Strain Outcomes: individual feeling and attitudes towards one's work in general such as individual feeling to his/her job (intention to leave), individual expectations of continued effectiveness at work (professional efficacy), and individual identification with or involved in a particular organization (Schaufeli, Leiter, Maslach, & Jackson, 1996).

Work Engagement: work engagement defined as a positive, fulfilling, and work-related state of mind that is characterized by vigour, dedication, and absorption (Bakker, Demerouti, & Verbeke, 2004).

Job Control: job control defined as the autonomy of the worker as to how to do his job, how to set his goals, and how to employ his skills and contribute to the overall decision-making (Frese, 1999).

Literature Review:

Antecedents' Variables of Strain and its Outcomes:

The job-demand-resource model (JDR) brought forward by Schaufeli and Bakker (2004) posits that every individual job possesses unique factors that relate with job stress, and such factors can be divided into job demands and job resources (Bakker,





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Demerouti, & Verbeke, 2004). Job demand is described as the different aspects of the organization that cover the physical, social, psychological and organizational aspects that may act as stressors when high degree of effort is called for (Bakker et al., 2004; Schaufeli & Bakker, 2004). Meanwhile, job resources is described as the opposite – the physical, psychological, social or organizational work aspects that assist employees in completing their tasks, mitigating the demands of the job, increasing motivation and motivating personal development (Bakker et al., 2004; Hakanen, Bakker, & Schaufeli, 2006).

Generally, work-related stress is known as psychological strain as there may be various negative or positive distinct responses to stress. Psychological strain is described as the psychological outcomes that appear in reaction to organizational demands. Therefore, the present study hypothesised that there is a relationship between job demands (role overload, role conflict, and role ambiguity and strain among lecturers.

Furthermore, most occupational stress models postulate that most stressors in the work environment have double effect on the workers' physiological, social relation and psychological well-being and productivity (Jones & Bright, 2001; Landsbergis et al., 2001). Along the same line of contention, Gillespie, Walsh, Winefield, Dua, and Stough (2001) stated that academics are having a difficult time in completing their job description in a proper manner owing to task overload. Higher ambiguity may also arise owing to the ambiguity related to the handling of various academic activities of teaching, research and professional activities that are needed to achieve academic role (Idris, 2011). Idris (2011) added that role conflict affects academics through the integrated aspects of higher teaching loads, limited resources and greater demands from shareholders, and hence, academics perceive higher strain. In relation to this, other studies investigated the outcomes of the perception of strain, among them professional efficacy which has been referred to as the tendency to evaluate one's self in an adverse manner on the basis of work achievement (Schaufeli & Bakker, 2004). Stated clearly, an individual that has low professional efficacy has a negative opinion of his work performance (Evers & Tomic, 2003). For instance, individuals who experience burnout are not as effective in their daily work, after which their performance begins dipping because of their negative attitude and behavior towards their work (Schaufeli & Bakker, 2004).

In this background, a negative perception of prior performance can affect the continuous effort and lessen both productivity and performance. Along a similar





line of contention, Allen and Meyer (1996) revealed that work experiences such as organizational rewards, procedural justice and supervisor support are significantly related to affective commitment. Commitment to the organization refers to the positive emotional attachment to the organization and intention to leave refers to the employee's inclination to leave the organization. In this context, when employees perceive that the organization acknowledges their contribution and takes care of their welfare, then their organizational commitment is maximized (Rhoades, Eisenberger, & Armeli, 2001). Among the many results of the feeling of strain that is evident is the leave intention – in other words, the situation where the individual decides to whether or not leave his place of work for good (Weisberg, 1994). Also, Janssen et al. (1999) described intention to leave as a negative result of job stress. The present study attempts to contribute to literature concerning strain outcomes for a specific study sample. Therefore, the present study hypothesised that there is a direct relationship between strain and individual outcomes.

The Mediating Role of Work Engagement:

The primary result of interest in the job-demand-resource model is work engagement, which is a new concept (Seligman & Csikszentmihalyi, 2000) and as such, no consensus to its definition has been reached yet although there are common elements that studies have described the concept with. For instance, work engagement was described by Schaufeli and Bakker (2004) as a mind state that is positive, fulfilling, related to work, and characterized by vigor, dedication and absorption. Schaufeli and Bakker (2004) indicated in their work engagement model that there are unique defining characteristics related to different organizational positive outcomes – these include turnover intention (Schaufeli & Bakker, 2004), high job satisfaction, and organizational commitment (Saks, 2006), greater discretionary effort (Bakker et al., 2004) as well as optimum performance of business (Harter, Schmidt & Hayes, 2002).

Although studies dedicated to the individual outcomes of engagement are still scarce, current studies (e.g. Schaufeli & Bakker, 2004; Hallberg & Schaufeli, 2006), showed that work engagement is linked to work aspects including feedback, social support, supervisory coaching, sleep disturbance, depression and distress. Added to the above, according to the job demand resource model, the mediating factors influence work welfare, with work engagement specifically mediating the relationship between job resources and positive outcomes (Schaufeli & Bakker, 2004).





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Also, current studies have confirmed that work engagement has a mediating role on the relationship between job characteristics and individual and organizational outcomes (e.g., Hopkins & Gardner, 2012; Karatepe, 2012). This justifies the description of work engagement in the present study as a state of mind that is positive, fulfilling, and work related, and is marked by the following factors – vigor, dedication and absorption. It is evident that studies concerning individual outcomes of engagement in prior literature are still scarce but extant studies showed that work engagement is linked to feedback, social support, supervisory coaching, sleep coaching, sleep disturbance, and distress (e.g., Hallberg & Schaufeli, 2006). Nevertheless, only a few empirical studies have been dedicated to examining the mediating role of work engagement, occupational strain and individual outcomes among academics. Therefore, the present study hypothesized that Work engagement correlated with strain and individual outcomes. In addition, work engagement will mediate the relationship between strains with professional efficacy, organization commitment and intention to leave.

The Moderating Role of Job Control:

As mentioned in Beehr (1998) and Sarah-Genevieve, Fernet and Austine's (2013) model postulating the moderator role of environment and individual characteristics work in the relationship between stressors and strain. Several studies conducted an analysis of environmental factors like social support and individual variables like self-efficacy and attitude as moderating the relationship. In addition, job control was employed to moderate occupational stress- strain process for both workers and academics (Idris, 2011). Job control was defined by Frese (1999), and Terry and Jimmieson (1999) as the autonomy of the worker as to how to do his job, how to set his goals, and how to employ his skills and contribute to the overall decision-making. Huang et al. (2009) stated that low job control is more likely to lead to impaired health and job attitudes while high job control is more likely to work as a resource factor by encouraging positive results. Along a similar line of description, Idris (2011) stated that job control can lead to mitigated effect of role ambiguity among the strain of academics. He also stated that job control perception among academics encapsulate their freedom of expressing their opinion without fear of censorship or discipline from the institution's management. Moreover, the impact of high demand on strain would be less if the worker possesses the behavioral control over the task (Idris, 2011). Although the above contentions are evident, only a few studies were carried out concerning the role of job control in occupational stress (Idris, 2011). Specifically, Karasek's (1979) model predicted





that workers who face high degrees of psychological demands and low degrees of social support and job control have a greater tendency to experience adverse health outcomes. He added that job control significantly contributes to predicting strain and active learning. Therefore, the present study hypothesized that Job control moderates the relationship between job demands and strain.

Method:

Procedures and Sample:

This study employed the quantitative analysis method as it is the most suitable method that can appropriately handle the purpose and the problem statement of the study. Neuman (2004) stated that the survey method is most widely used technique for gathering data in the social science. This study was conducted in a major public university (Dammam) in Saudi Arabia which has many branches at several big cities across Saudi Arabia. 217 full time lecturers were invited in this university as potential participants. The voluntary participants and confidentiality was assured. Two hundred and seventeen lecturers were selected in the present study. Information included in the current study is focused on the participating faculties, with 1 to over 2 years of experience. In addition, local Saudi and Non-Saudi lecturers were represented in the study. The sample was selected through the use of stratified sampling method – a method that guarantees every lecturer's possibility of being selected as a representative of the university. Furthermore, the reason for choosing the stratified sampling is that the university consists of many faculties and each faculty represents several departments. The process of stratified random sampling was used to ensure the proper proportion of population sub-groups in their representations. In this regard, Robson (1993) described this type of sampling as an efficient one owing to the fact that the means of stratified samples are likely to be closer to that of the overall population. Data collection was conducted at work time of the university. Out of 217 participants, 168 were men and the remaining 49 were women. Moreover, 20.7% (45) of the participants were lecturers holding Saudi nationality, and 79.3% (172) were foreign lecturers who hold non-Saudi nationality.





Research Tools:

Measurements:

Job demands were measured using the quantitative workload inventory with a six items scale developed by Spector and Jex (1998), added to a six-item scale measuring role ambiguity developed by Rizzo et al. (1970), an eight-item scale to measure role conflict by Rizzo et al. (1970), a general health questionnaire to measure strain by Goldberg (1978).

Role-overload is measured by five items adapted from Spector and Jex's (1998) quantitative workload inventory in order to analyze quantity of work, amount of workload, and time pressure. The respondents were requested to rate the frequency they face difficulties in conducting their duties. An item sample is "often my job requires me to work very fast". The cronbach's alpha coefficient for this scale in this study was (0.85). Role ambiguity was gauged with the help of six items developed from Rizzo et al. (1970) for the assessment of role authority and responsibility, work objective, needed information regarding the job and the expectations of others regarding the worker. An item sample is "I know what my responsibilities are". The cronbah'c alpha coefficient for this scale in this study was (.84).

Role Conflict was gauged with the help of Rizzo et al.'s (1970) eight items for the assessment of the perception of lecturers regarding the adequacy of resources, conflicting requests, group interdependence, and different working styles of the academics. For example, items include, "I receive an assignment without adequate resources", and "I work on unnecessary things". The Cronbach's alpha coefficient for this scale in this study was (0.93).

Strain was measured with the adapted version of the general health questionnaire and twelve items were used to measure the elements of strain consisting of the following; depression, self-esteem, stress, somatic, anxiety, negative affectivity as well as social dysfunction. The respondents used a 6-point likert-scale ranging from 1 never to 6 all the time. An item sample is "felt capable of making decisions about things". However, the result of cronbach's alpha for this study sample was 0.93 which approved that the measure was reliable.

To measure job control, the six item of the job control scale was used. The items of the measure were adapted from (Wall, Jackson, Mullarkey, & Parker, 1996) which referring to timing and method control. The answers were measured through a 6-point Likert scale that ranged from 1 depicting never to 6 depicting all the time,





to show the level of their control over their jobs. However, the result of Cronbach's alpha for the scale was (0.90) which showed the measure was reliable.

To measure work engagement, the current study adapted work engagement measurement which developed by Schaufeli et al. (2006). The respondents used a 7-point likert-scale ranging from 1 never to 7 always. An item sample is "at my work, I feel bursting with energy". In the current study, for the work engagement measurement, the cronbach's alpha obtained was (0.87). In addition, Professional efficacy was gauged through Schaufeli et al.'s (1996) study for the assessment of the academics' confidence in their ability to conduct their jobs. The respondents were requested to rate their efficacy on statements like, "I have effectively solved most of the problems that arise in my work". The Cronbach's alpha coefficient for the scale was found to be (0.93). Seven items, adopted from Allen and Meyer's (1996) study, were used to measure organizational commitment. The respondents were requested to rate the level of their feeling of belonging and feeling of attachment to their firms on a 6-point Likert scale that ranged from 1 depicting never, to 6 depicting all the time. The items include, "I do not feel a strong sense of belonging to this university", with the Cronbach's alpha coefficient value being (0.90). Finally, in order to measure intention to leave, this study employed three items scales adopted from O'Driscoll and Beehr's (1994) study to inquire whether or not the lecturers were inclined to leave their jobs, planned to look for new positions in another firm, or were actively searching for a new job outside the university. The answers were measured by a 6-point Likert scale ranging from 1 depicting never to 6 depicting all the time; for example, "Over the past 12 months, I have thought about quitting my present job". The obtained Cronbach's alpha coefficient for intention to leave was measured to be 0.88. To examine the validity of the measurements, validity was tested through confirmatory factor analysis (CFA), in an attempt to determine convergent, discriminant and nomnological validity (Fan, Thomson, & Wang 1999). However, all items in the models are significantly loaded on their corresponding variables. Results of the (CFA) validity model are proven to be reliable and valid results as shown in table 1 that generated a better model fits such as, chi-square value ($\chi^2 = \leq 5.00$), Comparative Fit Index (CFI >.90), The Root Mean Square Error of Approximation (RMSEA <.08), and Tucker Lewis Index (TLI >.90).



Table 1: Measurements Validity

Fit Index	RMSEA	CFI	TLI	($\chi^2 = \text{chi}$)
	<0.08	> 0.90	> 0.90	≤ 5.00
Strain	.078	.961	.947	2.849
Roe Overload	.043	.996	.991	1.408
Role Ambiguity	.057	.992	.980	1.704
Role Conflict	.079	.978	.969	2.355
Job Control	.010	1.00	1.00	5.00
Work Engagement	.075	.979	.960	2.205
Intention to Leave	.000	1.00	1.00	.000
Professional Efficacy	.042	.998	.994	1.930
Commitment	.058	.991	.985	1.732

Study Results:

Hypotheses Testing for Construct Model:

The testing of hypothesis was conducted with the help of SEM analysis, AMOS software. SEM enables estimating multiple regression equations in a single model at the same time. Accordingly, SEM was carried out by incorporating the entire direct and indirect relationships in the model at the same time. This way the method allowed the entire relationships' simultaneous analysis. The hypotheses results are listed in Table 2 with the significant and then on-significant associations of variables. There are four significant SEM paths present between the six path models as shown in Figure 2. On the basis of the results, the first proposition that a significant positive relationship exists between role overload and strain is supported with a significant critical ratio and significant coefficient estimate (0.692; $000 < .05$). The second study hypothesis stating that a significant association between role ambiguity and the feeling of strain exists, is rejected with a significant coefficient reported as (0.129; $.328 > .000$). The third hypothesis stating that there exists a significant association between role conflict and strain is also rejected with a critical ratio and significant coefficient of (-.012; $-.087 > .000$). On the other



hand, the fourth hypothesis stating that strain directly impacts intention to leave university among lecturers is supported at ($\beta=.93$; $p=.000 < 0.05$). Moreover, both hypotheses 5 and 6 are also supported where high levels of strain result in low professional efficacy among lecturers with the following measurements ($\beta=.90$; $p=.000 < 0.05$). On a final note, the result showed that strain impacted lecturers' commitment to the university, significant at ($\beta=.84$; $p=.000 < 0.05$).

Table 2: Structural Equation Modeling: Causal Relation Analysis

H	Structural Relation	Standardized coefficient	C.R	t-value		
H1	Role overload—>Strain	.197		3.521	.000**	Sig.
H2	Role Ambiguity—>Strain	.132		.977		.328 Not-Sig
H3	Role Conflict—>Strain	.139		-.087	.930	Not-Sig
H4	Strain—>Intention to leave	.120		10.451	.000**	Sig.
H5	Strain—>Prof-Efficacy	.113		9.066	.000**	Not-Sig.
H6	Strain—>Commitment	.111		9.822	.000**	Sig.
Note:** $p < .05$						
RMSEA= .079 CFI=		TLI= .839	Ratio=			
.848			2.357			

Sig: Significant at p value $< .05$

Moderation Model:

Moderating role of job control on the relationships between job demands and strain has been tested by a multi-group strategy where data was divided into two groups namely low-job control and high-job control. The model is analyzed and the researcher computed a chi-square statistics for the assessment of the model's overall goodness of fit. The next step involved the examination of the





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association between dependent variables and independent variables which was limited throughout the two groups. A chi-square statistics was then calculated for the constrained model and significance was determined through the subtraction of the chi-square goodness of fit statistics of the constrained model from the unconstrained one. The results revealed a significant overall model fit with the measurement ratio= 1.889, RMSEA= 0.064, CFI= 0.826, and TLI= 0.804, and the result revealed that the model is different between the two job control groups with the result ($977.804-921.766=56.038$) then computed to the chi-square critical ratio (1.914) for $\alpha =.05$ with 23 degree of freedom ($511-488=23$). Owing to the fact that these differences exceed the critical ratio, the interaction test was deemed as significant. The following step involved the examination of the path model by comparing the new chi-square value for the constrained path against the threshold chi-square considered significant. For the initial path, which focuses on the moderating impact of job control between job overload and strain, the result revealed the chi-square value to be 925.61 which is higher than the threshold value of 921.766. Based on the above discussed values, a difference exists between high job control and low job control in terms of the relationship between work overload and strain, where job control moderates such relationship.

In the next phase, the moderating impact of job control on the relationship between role ambiguity and strain is examined. The result shows that the chi-square is lower compared to the threshold value of 921.766, indicating rejection of hypothesis 5. The last phase is focused on the moderating impact of job control on the relationship between role conflict and strain, and the chi square value (927.39) is over the threshold value (921.766), confirming the difference between high job control and low job control in terms of the relationship between conflict and strain. Stated clearly, job control moderates the relationship between work conflict and strain, and role overload and strain, but it does not moderate that between role ambiguity and strain.

Mediation Model of Work Engagement:

Moving on to the mediation model, this study confirms whether or not a direct relationship exists between endogenous and exogenous variables. The study followed the established phases of determining direct and mediating variables interpretation by Barron and Kenny (1986). Figure 2 presents the proposed relationships. According to the results, the relationship between strain and work engagement is positive and significant at ($.17 < 0.05$), while that between





work engagement and intention to leave is negative and insignificant at $(-.189 \geq 0.05)$. Additionally, the relationship between work engagement and professional efficacy is negative and insignificant at $(-.17 > 0.05)$, and that between work engagement and organizational commitment is negative and insignificant at $(-.045 > 0.05)$. The results of the hypothesis proposing that strain predicts intention to leave, professional efficacy and organizational commitment are all supported at $(\beta=.958; p=.000 < 0.05)$, $(\beta=.831; p=.000 < 0.05)$ and $(\beta=.747; p=.000 < 0.05)$ respectively. As for the mediating impact of work engagement, strain is confirmed to be significantly related to work engagement, intention to leave and professional efficacy but not organizational commitment as shown in Table 3. The second phase showed that the strain-organizational commitment relationship decreased to insignificance after the introduction of the mediator in the model, showing full mediation. Therefore, it can be concluded that work engagement fully mediates the relationship between strain and organizational commitment. As for the others, the strain-intention to leave, and strain-professional efficacy relationships decreased but remained significant following the introduction of the mediating variable, and thus, a partial mediation is concluded in the two relationships. In sum, the proposed hypothesis stating that work engagement mediates the strain-intention to leave relationship, and the strain-professional efficacy are both partially support



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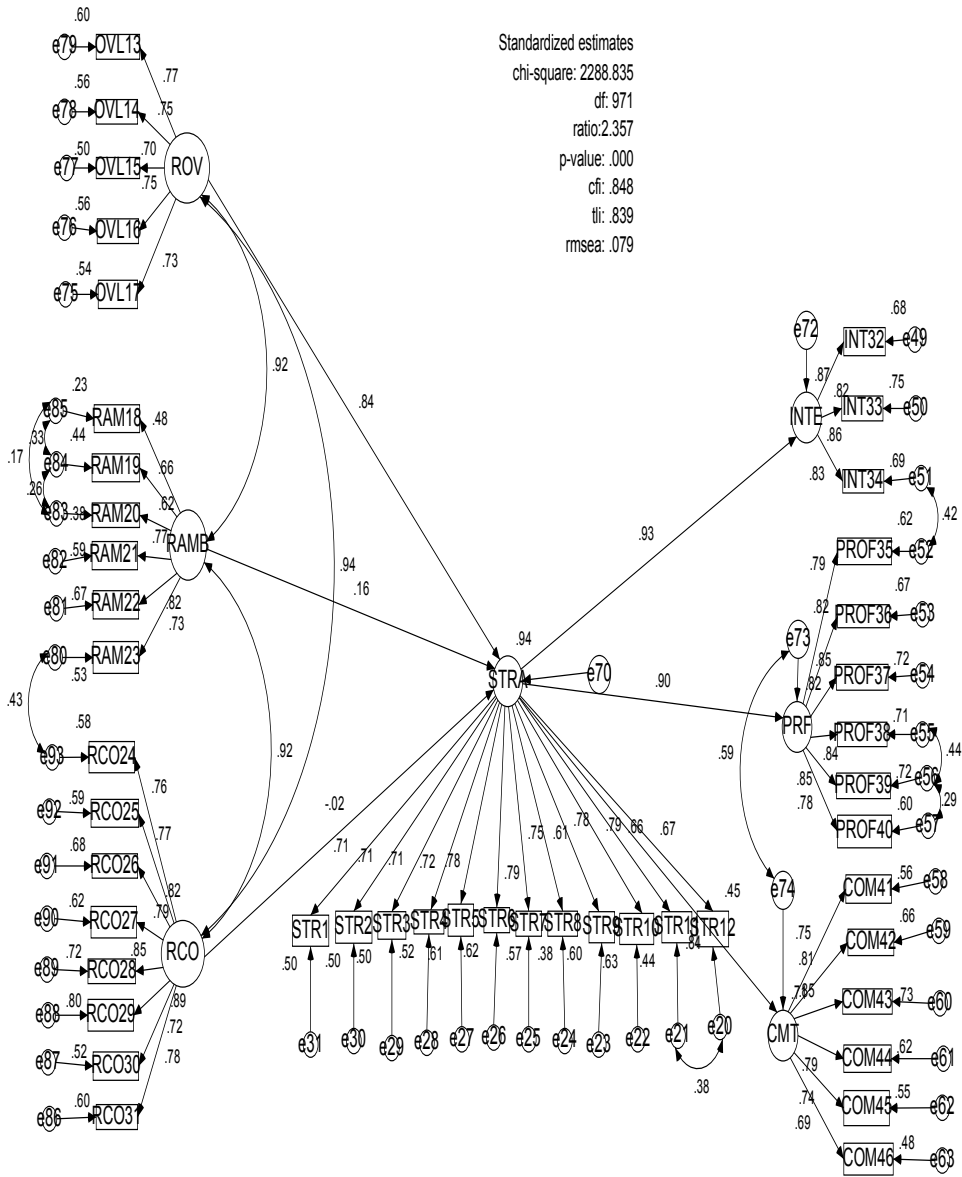


Figure 1. Hypotheses model

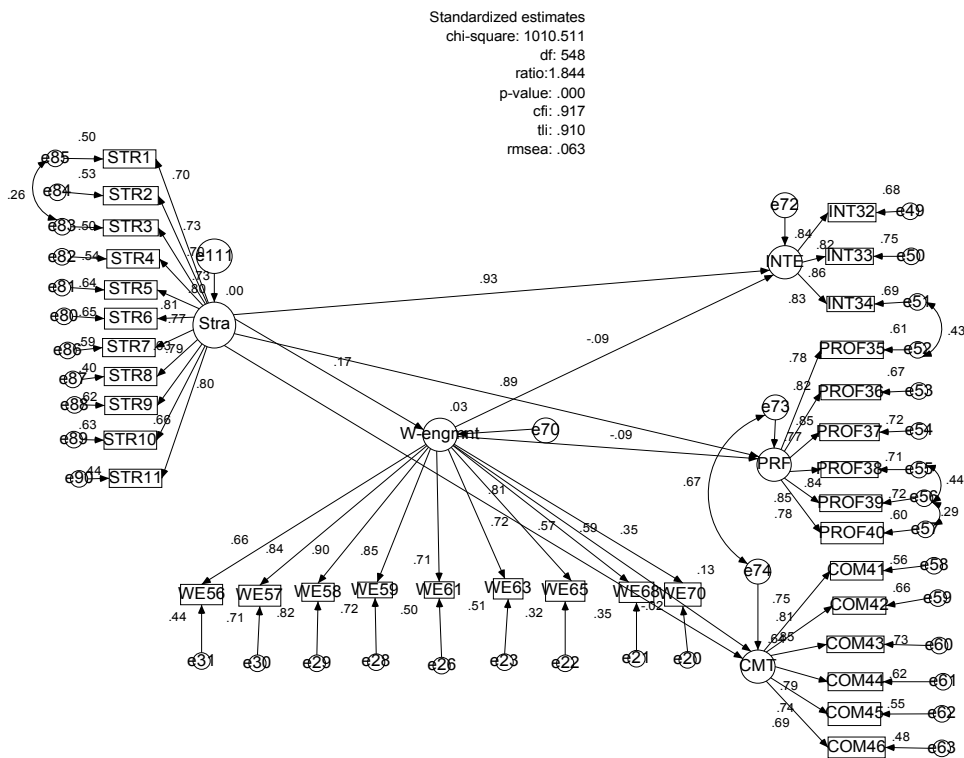


Figure 2. Hypotheses Mediating Model



Table 3: Direct and Indirect Mediating Results

Hypothesis	Path	p-value	Result
Str → Int to Leave	Direct (a-b)	(.000)***	Sig.
Str → Prof Effic	Direct (a-b)	(.000)***	Sig.
Str → Org Comm	Direct (a-b)	(.000)***	Sig.
Str → Work Eng	Direct (a-b)	(.029)***	Sig.
W-Eng → Int to Leave	Direct (b-c)	(.050)	Not-Sig.
W-Eng → Prof Effic	Direct (b-c)	(.051)	Not-Sig.
W-Eng → Org Comm	Direct (b-c)	(.635)	Not-Sig.
Str → Work Eng → Int to Lea	Indirect (a-b-c)	(.000, .029, .050)	Partial Sig.
Str → Work Eng → Prof Effic	Indirect (a-b-c)	(.000, .029, .051)	Partial Sig.
Str → Work Eng → Comm	Indirect (a-b-c)	(.000, .029, .635)	Fully Sig.

Note: Str=strain, Int to Leave= intention to leave, Prof Effic= professional efficacy, Org Comm= organization commitment, Work Eng= work engagement.

Discussion:

This study aimed to conduct a refinement of the job demands resource (JDR) model proposed by (Schaufeli & Bakker, 2004) in the context of university lecturers. University lecturers comprise of a group of staff who received little to no attention in the literature concerning work and stress. The research first examined the level to which job demands namely role overload, role conflict, and role ambiguity, predicted job strain and individual outcomes of strain among lecturers. At the same time, job control moderated the relationships between job demands and strain as well as work engagements' mediated the relationships effect on the strain and individual outcomes including intention to leave, organizational commitment, and professional efficacy. The initial result showed that role overload positively related to strain. This significant result is consistent with several other studies; for instance (Idris, 2011; Posig & Kickul, 2003). Also, according to Giliespie et al.



(2001), academics have a difficult time accomplishing their assigned jobs owing to task overload. Moreover, some of the respondents stated that working under tight time deadlines, accomplishing many different tasks in limited time, and increasing job responsibilities may be the reason for the role overload which would lead to psychological strain. This indicates support for the first hypothesis stating that work overload predicts psychological strain. With regards to the hypothesis stating that role conflict and role ambiguity predict psychological strain, they were not supported. This result is similar to prior studies such as Kebelo and Rao (2012) who established that role ambiguity did not predict strain, and contrary to other studies like Idris (2011) who revealed that it significantly impacted psychological strain. The respondent of this study stated that they fully comprehend their responsibilities and roles. This result also supports Fako's (2010) contention that employees perceiving unambiguous responsibilities were less likely to experience occupational stress than their counterparts who perceive unclear and ambiguous responsibilities. As for role conflict, the present study's result supported prior study by Idris (2011) who revealed that role conflict did not predict strain. The justification behind this result in the present study is owed to the fact that the sample was not given any rules and their roles were quite clear.

Moreover, the results obtained in the present study revealed that strain is a predictor of less professional efficacy, less commitment level, and intention to leave, and hypotheses related to this relationship are all supported. This is consistent with past studies that revealed the direct relationship of strain with intention to leave, professional efficacy and organizational commitment (e.g., Evers & Tomic, 2003; Rhoades, Eisenberger, & Armeli, 2001). More specifically, Shaufeli, Maslach and Marek (1993) related that individuals experiencing burnout are not as effective in their daily work and their performance because of their harbored negative attitudes and behaviors towards work. Along a similar line of study, Janssen et al. (1999) confirmed that intention to leave is an adverse outcome of stress in the workplace. Also, Idris (2011) revealed that strain is directly linked to organizational commitment of lecturers and thus, it can be concluded that strain is significantly related to leave intention, professional efficacy as well as organizational commitment.

Furthermore, in the present study, the researcher empirically confirmed if the relationship of work engagement with strain and individual outcomes (i.e., intention to leave, professional efficacy, and organizational commitment). According to the obtained results, work engagement directly relates to the lecturer's level of strain, but it does not relate to their intention to leave, professional efficacy and their





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organizational commitment. The confirmed relationship is expected as studies in literature like Schaufeli and Bakker (2004) showed that work engagement is the positive counterpart of burnout. The insignificant relations results of work engagement with the dependent variables, it is reasoned that the employee has little interest in their work. They want to increase their productivity not because they like their jobs, but out of a desire to satisfy their deans. Furthermore, since they have little interest in their work, engagement is hard for them to achieve. Another issue is the way that majority of the lecturers are wary about losing their positions at the university if they divulge honest answers. Added to this, the data collection period was conducted in the third month of the first semester, during which some of the respondents were still new to the university, and as such, they might not know the actual answers to the questions as they are still getting used to the activities happening in the university. Still another issue that is not related to professional efficacy is the framing of questions regarding professional efficacy in a negative way. Therefore, this might affect the result of the relationship between engagement and professional efficacy. A review of the results showed that the level of strain experienced by the lecturers was moderate to high. This may lead them to reduce their engagement at the university and lead to lower commitment as well as increase their intention to leave. Hence, we can conclude that these conditions eventually can make them stressful and bitter and may affect the results of the study.

With regards to the work engagement's mediating role, the results of the study are aligned with past studies. More specifically, the results showed that work engagement is related with individual outcomes in various ways – they supported the partial mediation of work engagement on the relationship between strain and intention to leave, and the partial mediation of the relationship between strain-professional efficacy, and organizational commitment. These results indicate complete support for the indirect path and thus, confirming the three proposed hypotheses.

This may be explained and related to the fact that lecturers that experience low strain levels have a higher tendency to quit the university when engaging in university activities. In Idris's (2009) study, his results revealed that job stressor is indirectly related to intention to leave. Added to the above result, the present study supported a partial mediation on the strain-professional efficacy relationship and in relation to this, Leiter and Maslach (1998) referred to engagement as the energetic state of involvement with personality achieving activities. These enhance the individual's





professional efficacy. Finally, work engagement is found in the present study to fully mediate the relationship between strain and organizational commitment.

With regards to the proposed moderating role of job control – the proposed hypotheses is supported by the JD-C model. According to Rodriguez, Bravo and Peiro (2001), job control is a significant factor that moderates the potential negative impact of job stress. The present study proposed that lecturers having high job control experience have a tendency to have less psychological strain in comparison to their low-controlled counterparts. The results indicate that lecturers perceive job demands as overwhelming or less so, based on their job control level. As such, it can be stated that job control is a critical personal resource that mitigates job strain. Prior studies claimed that the reason behind the positive effect of job control and support on the mitigation of strain and the enhancement of well-being is that these factors enable the individual to develop high coping abilities to fight stressors (Daniels, Beesley, Cheyney, & Wimalasiri, 2008) and the benefits are obtained as time passes. Daniels et al. (2008) added that control and support lead to problem-focused and emotional coping method that are related to factors such as fatigue, rates of error and minimal risky decisions. Thus, the hypothesis proposing the moderating effect of job control is supported in the present study.

Implications:

To conclude, this study clearly indicated that the work and personal resources partially mediated and moderates the job demands-strain relations and its outcomes in lecturers. The results of this study contribute to the literature on work engagement and job control among lecturers (Rath, 2011; Idris, 2009) and also confirmed the role of work engagement in predicting psychosocial outcomes. However, these results suggest that job demands and strain would predict individual abilities and organizational commitment through work engagement. The study's findings are expected to be invaluable to workplace stakeholders in general and in educational institutions, in particular as they shed a light on the role stressors and their effect on academic staff. The behaviors and attitudes of academicians may be enhanced by focusing on the contributing psychosocial factors. In other words, the university can intervene in helping lecturers to maximize their commitment and minimize their intention to leave which subsequently may lead to positive outcomes for the educational institutions and the lecturers' well-being.





Limitations and Future Research:

Similar to other studies, the present study has limitations of its own; the first one is attributed to the study sample. Because the sample is chosen from just a single university in Saudi Arabia, generalization throughout geographical and demographical areas is not confirmed. Based on such limitation, future studies are recommended to make use of the study framework but focus on all Saudi public and private universities together. Second, data collection was taken with the help of self-report measures which gives the participants ample opportunity to manipulate their answers owing to their boredom with the test battery, to get over the task of filling the questionnaires quickly, or to satisfy the researcher. Hence, they may have selected answers which do not match their actual experience (Creswell, 1994). Future studies may make use of qualitative methods to conduct an in-depth examination of the perception of lecturers of their work environment. Furthermore, the nature of the work engagement measure consists of positive and negative factors and was lumping the positive and negative effect together in this study; therefore, future study may put the positive correlated and the negative correlates of the concepts into two separate clusters of researched effects as it helps clarify the situation better.





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متطلبات وموارد الوظيفة بوصفها سابقة إجهاد: نموذج الاعتدال الوسيط للمشاركة في العمل والتحكم في الوظيفة

مالك تري جديتاوي

عمادة السنة التحضيرية والدراسات المساندة - جامعة الدمام

الدمام - المملكة العربية السعودية

ملخص البحث:

هدفت الدراسة الحالية إلى التحقق من العلاقة بين مصادر العمل ومستوى الإجهاد ونتائجه وأثر الانخراط في العمل والتحكم به كمتغيرات وسيطة للعلاقة بين المتغيرات المستقلة والتابعة على عينة من المدرسين في جامعة الدمام، باستخدام المنهج الوصفي والمنهج الارتباطي، إذ طبقت الدراسة على مدرسي الجامعة البالغ عددهم 217 مدرساً، والذين تم اختيارهم عشوائياً. حيث أشارت النتائج إلى أنه يوجد علاقة مباشرة بين متطلبات العمل ومستوى الإجهاد لدى عينة الدراسة. كما أشارت النتائج إلى وجود أثر جزئي للمتغير الوسيط والدخيل للعلاقة بين المتغيرات المستقلة والتابعة. بناءً على نتائج الدراسة، تم الإشارة إلى بعض التوصيات والتطبيقات المستوحاة من نظرية ونموذج مصادر ومتطلبات العمل.

الكلمات الدالة: متطلبات العمل، الانخراط في العمل، التحكم في العمل، الإجهاد، النواتج النفسية.

