Work Alienation Intervention in Job-Related Tension, Role Overload and Work Effort

Alienação do Trabalho Intervenção na Tensão Relacionada ao Trabalho
Sobrecarga de Função e Esforço de Trabalho

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Resumo
Este estudo examina a extensão do efeito direto da tensão relacionada ao trabalho e da sobrecarga de papéis no esforço de trabalho. Além disso, verificou-se o papel mediador da alienação do trabalho nas relações entre tensão relacionada ao trabalho, sobrecarga de papéis e esforço de trabalho. O estudo utiliza 367 acadêmicos que trabalham na Universidade El-Azhar, uma instituição de ensino superior no Egito. As hipóteses foram verificadas utilizando técnica de regressão múltipla direta e mediada, sugerindo que as cinco relações diretas e duas mediadas foram substanciadas. Os resultados demonstraram que, para aumentar o esforço de trabalho na universidade, a alienação do trabalho, a tensão relacionada com o trabalho e a sobrecarga de funções devem ser removidas ou reduzidas. Posteriormente, a alienação de trabalho apresenta efeito intervencionista na tensão relacionada ao trabalho e na sobrecarga de papéis e nas relações de esforço de trabalho.

Palavras-chave: ensino superior, acadêmico, esforço de trabalho, sobrecarga de papéis, tensões relacionadas ao trabalho, alienação do trabalho, Egito.

Abstract
This study examines the extent of direct effect of job-related tension and role overload on work effort. In addition, the mediating role of work alienation in the relationships between job-related tension, role overload and work effort were ascertained. The study utilizes 367 academicians working in El-Azhar University, a higher education institution in Egypt.
Hypotheses were verified using direct and mediated multiple regression technique suggesting all five direct and two mediated relationship substantiated. The results proved that in order to enhance work effort in the university, work alienation, job-related tension and role overload are required to be removed or reduced. Subsequently, work alienation poses intervening effect in job related tension and role overload and work effort relationships.

**Keyword:** higher education, academician, work effort, role-overload, job-related tensions, work alienation, Egypt

1. Introduction

Human resource is an organizational asset that plays significant role in supporting organizations to achieve its goals. Among others, work effort of the employees ensures organizations’ performance and sustainability. However, stressors prevail in work processes have jeopardize work effort and performance. Role overload, job-related tension and work alienation were those stressors found diminishing the work effort. Hence, higher education managers at all levels should strive to avoid their subordinates from experiencing role overload and job-related tensions as well as work alienation.

The historical origination of the notion of alienation was traced back to the early studies of Karl Marx (1844) in the settings of the rise of capitalism. Marx asserted that alienation exists in an economic system in which employees no longer see the outcomes of their work. Work alienation has raised significant consideration from researchers and practitioners in the past decade until today (Fromm, 1991; Geyer, 1996; Giddens, 1971; Hegel, 2003; Marx, 1961; Seeman, 1983; Shantz, Alfes, Bailey & Soane, 2015). We can conclude that Marx and other former researchers have considered work alienation as an objective construct. In contrast, contemporary researchers deal with the variable as a subjective construct, they defined it as a psychological construct (Kanungo, 1979, 1982; Kobasa, Maddi & Kahn, 1982) that captures the subjective experience of the individual worker. Accordingly, we explore work alienation in this study as a generalized, unenthusiastic view about the world of work that revealed a low level of involvement in the work role (Kobasa et al., 1982, 2003).

Previous studies have investigated the relationships between work alienation and organizational injustice, organizational commitment, job security, leadership style, work engagement, burnout, work–to–family enrichment, quality of work life and as such (Sulu,
Ceylan & Kaynak, 2010; Taamneh & Al-Gharaibeh, 2014; Tummers & Dulk, 2013, 66). However, very limited study investigated the relationship between work alienation, job–related tension, role overload and work effort. Thus, this study takes an effort to explore the relationships among academicians in a middle-east public higher learning institution.

The study aims to justify that it is important to determine the factors that may enhance the academic work effort and suggests strategies that may improve them. We believe that the academic work effort has some associations with work alienation, job-related tension, and role overload. Based on some significant effects of the direct relationship between work alienation, job-related tensions, role overload and work effort (Beehr, Walsh & Taber, 1976; Brown, Jones & Leigh, 2005; Brown & Peterson, 1993; Gould-William, 2004; McAllister, 1995; Tummers & Dulk, 2013), hence, this study investigates the direct and mediating effects of work alienation in job–related tension and role overload and their relationships with work effort.

This paper walks the concepts and their relationships in the literature review. Seven hypotheses formulated and tested utilizing the quantitative sampling and analysis. The findings of this study are expected to substantiate the hypothesis, hence contributed to academic research and management knowledge in developing country like Egypt. Consequently, scope, limitation, future studies and implications are also discussed.

2. Literature Review

We outline literature in the four sections to establish the knowledge study as follows; concepts of work alienation, job–related tension, role-overload and work effort. Next part deals with reviews in the direct relationships between the variables and consequently reviews in the impact of work alienation as the mediator in job-related tension, role-overload and work effort relationships.

2.1 Work alienation

Work alienation has been conceptualized as "an effect – inclusive phenomenon that describes a level of positive affect for the world of work (Kobasa Maddi, & Kahn., 1982). In other words, it represents the degree to which employees felt alienated from their work (Kanungo, 1982).
Notion of alienation has a long history (Tummers & Dulk, 2011). It was initially utilized in an ancient Greece (Temel, Cenk, Mirzeoğlu & Mirzeoğlu., 2013), it became a force to be reckoned with in the early works of Marx (1932). Moreover, there were number of studies about work alienation in difference field of studies such as philosophy, sociology, psychology, psychiatry and theology (Tummers & Dulk, 2011). However, limited attention was detected in organizational studies investigating work alienation phenomena (Kahn, 1976). George Friedrich, Wilhelm Hegel and Karl Marx were considered as founding fathers of the work alienation concept due to their valuable contributions (Kanungo, 1982; Tummers & Dulk, 2011). For instance, the most significant contribution of Hegel was the phenomenology of mind/phenomenology of spirit (1807). While Hegel deals with alienation as the prominent concept (Tummers & Dulk, 2011).

Notably, the concept of alienation has some issues in scientific value. For instance, Lee (1972) iterated that alienation concept has "died of overweening claims and overwork". Although the researchers drafted many definitions, but they failed to reduce the ambiguity and uncertainty surrounding it about what the concept actually means (Seybolt & Gruenfeld, 1976). The essential meaning of alienation has been specified with a dissociative state of the individual in relation to some other factors in their environment (Kanungo, 1979; Schacht, 1970). In details, Horowitz (1966) defines alienation as "an intense separation first from objects of the world, second from people, and third from ideas about the world held by other people. Fromm (1955) refers to alienation as "the mode of experience as an alien, or in other meaning becomes estranged from the self". On the other hand, Marx (1963) asserted that alienation refers to the estrangement of employees from the results of his work process, his fellows, and ultimately himself. Similarly, Horowitz (1966) noted that alienation means separation from objects of the world, second from people, and third from ideas about the world held by other people. Furthermore, Overend (1975) divided alienation into two types: separation/estrangement that person feels toward the citizen body. Hence, we can conclude that the alienation concept can be termed as separation or estrangement (Nair & Vohra, 2009, 2010, 2015).

Furthermore, Nasrudin, Ramayah & Kumaresan (2005) define alienation as the inability of the employee to fulfill his social needs. In similar vein, Banai, Reisel and Probst (2004) added that alienation refers to the inability of employees to satisfy his salient needs and expectations.
from work. Based upon the two above definitions we can conclude that common theme in these definitions is the linkage between the person and the workplace.

Moreover, Allen and La Follett (1977) cited that workplaces alienation can be characterized as place absence of autonomy in selecting tasks, denial of participation in decision making and the employees are more likely to feel with intense alienation. Similarly, Kanungo (1983) asserted that organizations deprive of autonomy and control of the job is more likely to experience alienation. Furthermore, Marx (1844/1961) and Weber (1926/1947) noted that employee's alienation as the feeling with inability to control his job. Sarros, Tanewski, Winter, Santora and Densten (2002) iterated that the work conditions do not fulfill their needs, values or well being. Hence, we can conclude that the common theme is the relation between the employees and their work conditions.

Consequently, work alienation can be considered as a multidimensional concept (Blauner, 1964; Mau, 1992; Seeman, 1959; Tummers & Dulk, 2011). Seeman (1971) provides five dimensions of alienation, which are: powerlessness, meaningless, normlessness, isolation and self–estrangement (Sarros et al., 2002; Temel et al., 2013). Powerlessness means a lack of control over events in a person's life (Banai & Reisel, 2007; Sulu, Ceylan & Kaynak, 2010) that happens when the employee feel that one could not experience taking control over the work processes. Meaninglessness refers to the employee's disability to perceive the relationship between his contribution and larger purpose (Sarros et al., 2002). Powerlessness and meaningfulness can be considered as the key psychological dimensions of alienation (De Hart – Davis & Pandey, 2005; Tummers & Dulk, 2011). Normlessness occurs when norms or codes of conduct ineffectively guide behavior of employees toward achieving the goals (Seeman, 1971; Sarros et al., 2002), while self–estrangement arises when employees perceive their work as path for filling extrinsic needs rather than perceiving it as a way for expressing their potential (Sarros et al., 2002). Two dimensions as discussed in Sulu et al. (2010) namely work alienation’s dimensions of powerlessness and social isolation will be utilized in this study.

2.2 Job-related tension

Job–related tension is the degree to which employee is psychologically bothered in work–related issues (Lawler & Porter, 1967). Similarly, Lusch and Serpkenci (1990) defined
it as "an affective state that arises from an employee's feeling associated with perceived negative consequences of role perceptions". Hence, the traditional concepts associated with role theory like ambiguity, conflict, overload and accuracy represent the processes leading to feeling with an overall affective state toward the job and work environment (Lusch & Serpkenci, 1990). There are multiple sources of job–related tension such as, the existence of role conflict or the absence of role clarity (Kelly & Hise, 1980).

Moreover, lack of authority in comparison to responsibility in excessive numbers, variety of interfaces, lack of job continuity, involvement with a high number of products. Hence, job–related tension is important because it has been associated with increased levels of antagonism, absenteeism and turnover (Dunk, 1993; David, 2003), withdrawal, repression, rationalization, impairment of health and alcoholism (Kelly, Gable & Hise, 1980).

2.3 Role overload

When employees perceive that available resources are inadequate to fulfill their role demands shall lead to distraction and stress, this causes role overload (Kahn, Wolfe, Quinn & Snoek, 1964). Role overload is considered as one of the most serious and rapidly growing problems in a great deal of work environments (Murphy & Sauter, 2003) and may cause health problems (Weiler, 2005). Role overload can be defined as a personnel lacks of resources to achieve discriminating roles, where there is a need to practice commitment, obligations or requirements (Peterson et al., 1995; May, Ramayah & Liew, 2014).

Moreover, French and Caplan (1973) described role overload as the employee's inability to balance between the role demands placed on him and the available resources for him at the employee's disposal to achieve those demands. Kahn et al. (1964) concluded that role overload is a very predominant, complex form of conflict that consolidates 'aspects of person – role and inter sender conflicts'. Overall, role overloaded refers to the amount of work that must be achieved through a given period of time and lead to exceeding the demands of working time and create uncertainty of performance (Cooper & Bright., 2001; Cooper & Dewe, 2004; May, Ramayah & Liew, 2014). Quantitative overload occurs when the employee must achieve a large number of tasks in a given period of time. Qualitative overload happens when the employees feel that they are lacking of the ability required to do the work regardless of the period of time available for him. Furthermore, it may also occur when performance standard are fixed so high as to appear not attainable (Larson, 2004). Lease (1999) asserted
that role overload is a powerful predictor for strain in academic faculty and he found that the evaluation of being overwhelmed was considered as more significance than an objective measure of roles and demands (Hwa & Hee, 2009).

2.4 Work effort

Effort is a measurable behavior that is affected by motivation (Bandura & Cervone, 1983; Deci & Ryan, 1985; Locke, Show, Saari & Latham, 1981). Thus, the researchers perceive it as distinct notion (De Cooman, De Gieter, Pepermans, Jegers, & Van Acker, 2009). The notion of work effort is rarely noted in practical work (Green & McIntosh, 2001). Because the difficulty of measuring it. Therefore, the operationalization of work effort has been widely discussed, and the researchers prefer using particular measures (e.g., Campbell & Pritchard, 1976; Kanfer, 1990) rather than merely including the work intensification dimension (De Cooman et al., 2009).

Work effort refers to "the discretionary input of employees in their work, extending themselves beyond the written employment contract (Gould – Williams, 2004). It reflects employees' readily operationalized behaviors" (Behling & Starke, 1973). Work effort can be defined as "the force, energy, or activity by which work is done" (Brown & Paterson, 1994). Yeo and Neal (2004) describe work effort as "the amount of resources that are expanded on the job". Furthermore, De Cooman and others (2009) asserted that work effort can be described as the behavioral manifestation of work motivation, referring to the intensity (force), persistence (duration) and direction (relevance) of the effort exerted at work. Notably, the concept of work effort is related with similar concepts, such as organizational citizenship behavior (Podsakoff et al., 2009) extra role–behavior (Van Dyne et al. 1995). Work performance (Byrne, Stoner, Thompson & Hochwarter, 2005; Pierce, Gardner, Cummings & Dunham, 1989).

2.5 Relationship between job-related tension, role overload and work effort

The expectancy theory of Beehr et al. (1976) witnessed that the impact of job–related tension resulting from role ambiguity and conflict on job involvement and asserted that role ambiguity reduces motivation to perform (Tummers & Dulk, 2012). In similar vein, role overload has a significant negative impact on job performance (Brown & Peterson, 1993).
Furthermore, role overload is likely to decrease the strength of relationships in the high performance cycle because it impose people to extent their attention, effort and resources thinly to cover great demands (Brown et al., 2005). Work effort is an active job performance indicator (Tummers & Dulk, 2013). Mc Allister (1995) noted that employees need to exert extra effort to achieve higher levels of organizational performance. Thus, we expect that there is a negative relationship between job–related tension, role overload and work effort. Hence we posit:

\[ H1: \text{Job-related tension negatively explains work effort} \]
\[ H2: \text{Role overload negatively explains work effort.} \]

### 2.6 Relationship between work alienation and work effort

Work effort considers discretionary input of employees in their work, stretching themselves beyond the written employment contract (Gould–Williams, 2004). Tummers and Dulk (2013) noted that work alienation was negatively related to active performance at work (work effort).

Procedural justice, which refers to the perceived fairness of decision-making procedures, is accepted as an important antecedent of several job attitudes and behaviors such as turnover intention, organizational commitment, trust, and stress in organizational justice literature. This study examined the relationship of procedural injustice to job stress, and whether work alienation, which has not been referred to in justice literature before, serves as a mediator in this relationship. Two dimensions of work alienation (powerlessness and social isolation) were addressed for this study. It was hypothesized that procedural injustice causes job stress, and work alienation serves as a mediator in this relationship. These relationships were tested in a sample of 383 health care professionals (doctors and nurses) from public and private hospitals in Istanbul. The results revealed that procedural injustice was associated with job stress and each of the work alienation dimensions partially mediated this relationship. Hence, we posit:

\[ H3: \text{Work alienation negatively explains work effort.} \]

### 2.7 Relationship between job-related tension, role overload and work alienation
The study asserts that job–related tension is one of the factors impacted on employee's job involvement (Kindboye, 2002; Beehr, Walsh & Taber, 1976; Coetze & Rothmanrr, 2005). Lower level of job involvement leads employees to feel alienated (Judeth & Ucho, 2014). In similar vein, alienation in the workplace refers to the ability of employees to fulfill their social needs. On the other hand, role overload is considered as the most common sources of job stress (Frone, 2008). Number of studies verified that role overload has been empirically related to psychological and behavioral symptom (Beehr & Newman, 1978; Miller & Ellis, 1990). Subsequently, some researchers noted that there is a relationship between job stress and alienation (Kornhauser, 1965; Sashkin, 1984; Thoits, 1995). We hereby concur with most of the findings that there were positive relationships between job–related tension, role overload and work alienation. Hence, we posit:

\[ H4: \text{Job-related tensions positively explains work alienation} \]
\[ H5: \text{Role overload positively explains work alienation.} \]

2.8 The mediating effect of work alienation in the relationship between job-related tension, role overload and work effort

Studies have shown that work alienation contributed to higher negative feeling towards work effort in an organization. Sulu et al. (2010) verified that work alienation serves as a mediator in the relationship between distributive injustice, procedural injustice and organizational commitment. Similarly, Tummers and den Dulk (2013) found exerting effort in work diminishes when alienation prevails in healthcare industries. However, limited studies in intervening effect warrant more studies and exploration. Hence, we posit:

\[ H6: \text{work alienation mediates the relationship between role overload and work effort.} \]
\[ H7: \text{work alienation mediates the relationship between job related tension and work effort.} \]

2.9 Gaps in the literature review

We found that most of the studies concentrate on specific variables where very limited studies investigating work alienation variable and its mediating impact in a contingency model. Most of the works in this area were established in developed countries whereas among the developing countries more evidence required to verify the knowledge.
2.10 Development theoretical framework

We expect that there is a negative direct relationship between job–related tension; role overload on work effort. In addition, we suggest that work alienation may mediate the effect in the relationships between job-related tension, role overload and work effort.

3. Methodology and findings

The section outlines research design, sampling procedure, questionnaire design and structure, data analysis, conclusion, limitation and future scope and implication of the study.

3.1 Research design

The study executed the survey technique as a method of collecting data for the variables of interest. The design of this study is cross–sectional as it provides a suitable avenue for investigating the relationships among the different variables (Kerlinger & Lee, 2000; Shaughnessy & Zechmeister, 1997). The research design embodies plans and the design employed in collecting, analyzing and explaining the data as the basic structure of the current study. The study utilizes quantitative approach pursuing scientific inquiry to investigate the relationships among the independent, mediating and dependent variables in the context of educational organization.

3.2 Respondents and sampling procedure

Data for this study was obtained from a survey in El-Azhar University in Egypt as a population of interest. Since it is the biggest and the oldest Egyptian university leading global message and studying Islamic religion, Arabic language sciences and other scientific studies for Muslims across the world. The university manifested 77 distributed colleges across Egypt,
and there are about half a million students coming from different Islamic countries. To date the university employed 9318 academicians.

Data collection procedure was run in a two-stage process, first is to run a preliminary survey among 50 academicians then followed by the second stage process of the actual data collection process.

The second stage data collection ensures the optimum sample collected, the researcher used a simple random sampling method with a size (n) of 400 utilizing Krejcie and Morgan (1970) table. Simple random sampling ensures probability sampling successfully executed whereby each element in the population was given equal chance of being selected. Sample was selected according to random number generator that produced a number matching the number in the population frame. This iterative process took about 400-500 runs to acquire the 400 samples.

The questionnaires were distributed proportionately among the faculty. Four hundred copies of questionnaires were distributed among academicians, 380 were returned, However, 13 questionnaires out of those returned were statistically valueless for analysis due to missing or in correct marling, or for lifting some questions without answering, or for clearly biased. Therefore, a total of 367 questionnaires were utilized for analysis representing a final result of 91.75 percent return rate.

The demographic distribution of data collected comprised of gender, 152 of sample were females and 215 were males. The functional specialization; showed 87 were lecturers, 214 were demonstrator, 153 were assistant lecturers. The educational level showed 214 were bachelor's degree holders, 153 were master’s degree holders.

The first stage of the collection of data, the researchers adopted preliminary interviews to obtain qualitative data from 50 academic members who had been selected through convenience sampling. These preliminary interviews were utilized as an additional data to establish and adjust the questionnaires and especially to achieve the aims of the study. Also, the reliability of adopted instruments was used for testing the reliability of the adopted instruments. All 50 samples used in the first stage were excluded from the population frame used to select the sample in the second stage. In the second stage, the questionnaire was
established using constructs obtained from preliminary interviews as well as themes explained in the literature review.

In terms of ethical considerations all participants were voluntarily and anonymously ensured, data were collected by the researcher at the respondents’ workplace in April 2015 within the specified period lasted within 27 days.

3.3 Instrument design and structure

The research instrument utilized questionnaire as means of how to obtain the appropriate data. The method helps decrease pressure on respondents, so it can help the researchers to collect more accurate data. In reducing the possibility of common method bias, the researcher used questionnaires that previously tested and proven free from the bias. This questionnaire was formulated on the basis of scales obtained from Maddi, Kobasa and Hoover, 1979, Kahn et al., 1964, House, 1980, and De Cooman et al., 2009. It consisted of two parts: part one was an informed consent from which participants were to register and indicate their acceptance for taking part in the survey. Section II of the questionnaire had five sections. First section addresses the demographic variables, second section lists the work alienation items, third section is the items about perceptual experiences in role overload, fourth section lists out the items about one feeling of occupation–related tension and fifth section lists the items about one’s level of work effort. The first three items are demographic in nature, while the remaining (39) items rated on a 5-point Likert scale ranging from 1(strongly disagree) to 5 (strongly agree). "How much do you agree or disagree with these statements?'.

Work alienation: to evaluate feeling of work alienation, the researcher used 10 items derived from 12 items scale developed in Maddi et al., (1979). With respect to the original scale, one item focusing a career dealing with matters of life and death and another item (intensify a more dangerous job being better were considered inappropriate for the study and were caressed. Several remaining items were slightly altered to improve readability.

Job–related tension (as independent variable): to evaluate the participant's feelings with job–related tension, the researchers adopted the scale developed by Kahn et al. (1964) it includes fifteen items, which concentrates on role conflict and ambiguity as a source of tension.
Role overload: to assess role overload, the researchers used four items adopted from House (1980) and derived from Singh (2000), that we asked respondents about how they often (1= never, 5= always) feels with the following: the amount of work interferes with how well the work gets done “you don't have enough time to get the job done well" and "you have to try to satisfy too many different people?”. These items are consistent with the conceptual definition of role overload as coined in Kahn et al. (1964) with the previous studies (e.g. House, 1980; Singh, 2000).

Work Effort (as dependent variable): assessed by using the 10-item work effort scale developed in De Cooman et al. (2009). This scale includes three items that evaluate the direction of effort (for example “I really do my best to achieve the objectives of the organization”). Three items for measuring the persistence of the effort (e.g., when I start assignment, I pursue it to the end). And four items for measuring the intensity of the effort (e.g. " I put a lot of energy into the tasks that I commence").

3.4 Construct Management

The items corresponding to the suggested construct were run in the reliability analysis showing stable and consistent index of the Cronbach’s alpha more than .70. The corresponding items were combined in a composite scale and labeled as the specified variables.

4. Results

This section verified the results of the analysis as follows, first observed the descriptive statistics and goodness of measures utilizing exploratory factor analysis, reliability and correlation analysis. Second, the hypothesis testing for direct relationship utilizes multiple regression analysis and mediated relationship utilizes Preacher and Hayes (2004, 2008).

4.1 Goodness of measures and correlation

The data was analyzed using the SPSS software. After examined the responses that free of flaws we run the goodness of measures in ensuring the construct validity and reliability. The construct validity utilized exploratory factor analysis (EFA) using principal component
analysis and varimax rotation that delineated the dimension of each construct investigated. Table 1 showed the results of EFA that delineated each construct into specific group, the EFA showed indicators of Keiser-Meyer-Olkin measures of sampling adequacy, variance explained and factor loadings.

Table 1: Results of Exploratory Factor Analysis

<table>
<thead>
<tr>
<th>Construct</th>
<th>KMO, Bartlett Test of Sphericity &amp; DF</th>
<th>Construct/(% of total variance)/ Factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORK ALIENATION</td>
<td>.64, 1342.21**, 21</td>
<td>WA1 (43.15) WA2 (23.60) WA3 (17.51)</td>
</tr>
<tr>
<td>I don’t enjoy work; I just put in my time to get paid</td>
<td>.94</td>
<td>.10</td>
</tr>
<tr>
<td>I find it hard to believe people who actually feel that the work they perform is of value to society.</td>
<td>.86</td>
<td>.16</td>
</tr>
<tr>
<td>Those who work for a living are manipulated by those who run things</td>
<td>.85</td>
<td>-.07</td>
</tr>
<tr>
<td>Ordinary work is too boring to be worth doing.</td>
<td>.07</td>
<td>.93</td>
</tr>
<tr>
<td>It doesn’t matter if people work hard at their jobs; only a few “higher ups” really profit.</td>
<td>.08</td>
<td>.92</td>
</tr>
<tr>
<td>Most of work life is wasted in meaningless activity.</td>
<td>-.07</td>
<td>.08</td>
</tr>
<tr>
<td>I wonder why I work at all.</td>
<td>.51</td>
<td>.17</td>
</tr>
<tr>
<td>ROLE OVERLOAD</td>
<td>.50, 772.18**, 1</td>
<td>RO/(96.90%)</td>
</tr>
<tr>
<td>Thinking that you’ll not be able to satisfy the conflicting demands of various people over you</td>
<td>.51</td>
<td></td>
</tr>
<tr>
<td>Feeling that you have too heavy work load, one that you can’t possibly finish during an ordinary day</td>
<td>.51</td>
<td></td>
</tr>
<tr>
<td>JOB-RELATED TENSION</td>
<td>Not computed</td>
<td>JT1/(71.21%) JT2/(13.68%)</td>
</tr>
<tr>
<td>Not knowing just what the people you work with expect from you.</td>
<td>.94</td>
<td>.20</td>
</tr>
<tr>
<td>Feeling that you have to do things on the job that are against your better judgment.</td>
<td>.92</td>
<td>.06</td>
</tr>
<tr>
<td>Feeling unable to influence your immediate supervisors’ decisions and actions that affect you.</td>
<td>.91</td>
<td>.30</td>
</tr>
<tr>
<td>Not knowing that your immediate supervisor thinks of you, how he or she evaluates your performance.</td>
<td>.89</td>
<td>.38</td>
</tr>
<tr>
<td>The fact that you cannot get information need to carry out your job.</td>
<td>.89</td>
<td>.38</td>
</tr>
</tbody>
</table>
Feeling that your job tends to interfere with your family life. | .89 | .19
Feeling that you may not be liked and accepted by the people you work with. | .84 | .47
Having to decide things that affect lives of individual’s people that you know. | .67 | .37
Thinking that you will not be able to satisfy the conflicting demands of various people over you. | .44 | .83
Feeling that you have too heavy work load one that you can possibly finish during an ordinary workday. | .31 | .82
Feeling that you have too little authority to carry out responsibility assigned to you. | -.09 | .80
Being unclear on just what the scope and responsibilities of your job are. | .57 | .78
Not knowing what opportunities for advancement and promotion exist for you. | .57 | .78

<table>
<thead>
<tr>
<th>WORK EFFORT</th>
<th>.57, 1955.33**, 10</th>
<th>WE1/(56.16%)</th>
<th>WE2(32.20%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am trustworthy in the execution of the tasks that are assigned to me</td>
<td>.98</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>I do my best to do what is expected of me</td>
<td>.91</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>I think of myself as a hard worker</td>
<td>.71</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td>I always exert equally hard during the execution of my job.</td>
<td>.08</td>
<td>.97</td>
<td></td>
</tr>
<tr>
<td>I put a lot of energy into the tasks that I commence.</td>
<td>.15</td>
<td>.96</td>
<td></td>
</tr>
</tbody>
</table>

The construct that fit into a group was combined using mean score computation forming a variable. The variable descriptive was analyzed and Table 2 illustrates Cronbach’s alpha, means, standard deviation (SD) and inter–correlation among study constructs.

Work alienation construct were loaded on three distinct factors, WA1-powerlessness (3 items), WA2-social isolation (2 items) and WA3-meaningless work (2 items), 84 percent of the total variance explained. The factor loading of items ranged from 0.72 to 0.94 above the cutoff value of 0.40 as recommended in Hair et al. (2010). Meanwhile, items A4, A5, A8 were removed due to weak loadings. Furthermore, their means and standard deviation were significantly different from the means and standard deviation of other items, thus suggesting that respondents viewed this item differently than others.
Two role overload constructs were explained by 96 percent of the total variance, where items O2 and O3 showed loading of more than .40. Meanwhile item O1 was deleted because the loading did not observe sufficient scores.

For job–related tension construct, EFA results showed that there were two dimensions loaded with 85 percent of explained total variance, JT1 and JT2 emerged in representing the variable. The loadings of the items ranged from 0.67 to 0.94 above the cutoff value of 0.40. Meanwhile items T6 and T13 were deleted due to insufficient loadings. Dimension JT1 comprised of items T12, T14, T11, T7, T8, T15, T10 and T9. The second dimension JT2 contained items T5, T4, T1, T2 and T3.

The work effort constructs loaded with two factors explained by 88 percent of the total variance. Dimensions WE1 and WE2 were loaded with items ranged from 0.71 to 0.96 above the cutoff value of 0.40. Items E1, E2, E3, E6 and E8 were deleted due to insufficient loadings. WE1 dimension comprised of items E5, E4 and E7. And dimension WE2 comprised of two items E10 and E9.

Table 2: Alpha Cronbach’s Measurement Results, Means, Standard Deviation and Inter–correlation of Constructs.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Alpha</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. WA1</td>
<td>3</td>
<td>0.84</td>
<td>3.21</td>
<td>0.60</td>
<td>0.16**</td>
<td>0.34**</td>
<td>0.30**</td>
<td>0.21**</td>
<td>0.41**</td>
<td>-0.12*</td>
<td>-0.08</td>
<td></td>
</tr>
<tr>
<td>2. WA2</td>
<td>2</td>
<td>0.83</td>
<td>2.12</td>
<td>0.40</td>
<td>0.24**</td>
<td>-0.15**</td>
<td>0.05</td>
<td>0.09</td>
<td>-0.03</td>
<td>0.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. WA3</td>
<td>2</td>
<td>0.69</td>
<td>2.63</td>
<td>0.64</td>
<td>0.17**</td>
<td>-0.07</td>
<td>0.31**</td>
<td>-0.07</td>
<td>0.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. RO</td>
<td>2</td>
<td>0.97</td>
<td>3.43</td>
<td>0.52</td>
<td>0.13*</td>
<td>0.22**</td>
<td>-0.12*</td>
<td>-0.11*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. JT1</td>
<td>8</td>
<td>0.97</td>
<td>2.64</td>
<td>0.67</td>
<td>0.64**</td>
<td>-0.25**</td>
<td>-0.31**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. JT2</td>
<td>4</td>
<td>0.90</td>
<td>3.33</td>
<td>0.84</td>
<td>-0.23**</td>
<td>-0.29**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. WE1</td>
<td>3</td>
<td>0.72</td>
<td>2.70</td>
<td>0.19</td>
<td>0.33**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. WE2</td>
<td>2</td>
<td>0.95</td>
<td>3.42</td>
<td>0.52</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05, **p<.01.

Cronbach’s measurement was conducted on the attitudinal variables used in the study. The Cronbach's of WA1 is (0.84), WA2 is (0.83), WA3 is (0.69), role overload is (0.97), JT1 is (0.97), JT2 is (0.90), WE1 was (0.72). Finally WE2 was (0.95). The results showed all variables used were beyond Nunnaly (1971) suggested reliability index.

Means and standard deviations of the study variables indicated that participants scored moderate levels of WA1, WA2, WA3, RO, JT1, JT2, WE1, and WE2. The value of the means
was (3.21, 2.12, 2.63, 3.43, 2.64, 3.33, 2.70, 3.42) respectively, showed quite narrow dispersion in the responses explained in the value of smaller standard deviation where all SDs were less than 1.

The correlation coefficients explained the non-directional relationship between the studied variables. Table 2 further revealed that there was statistically meaningful correlation between the variables, exceptions the relationships between WA1 and WA2, and the relationships among WA2 and variables JT1, JT2, WE1, and WE2. The relationships among WA3 and variables JT1, JT2, WE1 and WE2 were non-significance. All correlation coefficients proved the data were free from multi-collinearity when they were less than .90 (Hair, Anderson, Tatham & Black, 1998).

4.2 Direct Relationships between Variables - Hypotheses Testing

Each hypothesis was restated due to changes in the construct after EFA was executed. Thus the restated hypothesis was as follows:

H1a: Job–related tensions 1 negatively explains work effort 1
H1b: Job-related tensions 1 negatively explains work effort 2
H1c: Job-related tensions 2 negatively explains work effort 1
H1d: Job-related tensions 2 negatively explains work effort 2
H2a: Role overload negatively explains work effort 1
H2b: Role overload negatively explains work effort 2
H3a: Work alienation 1 negatively explains work effort 1
H3b: Work alienation 1 negatively explains work effort 2
H3c: Work alienation 2 negatively explains work effort 1
H3d: Work alienation 2 negatively explains work effort 2
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H3e: Work alienation 3 negatively explains work effort 1

H3f: Work alienation 3 negatively explains work effort 2

H4a: Job-related tensions 1 positively explains work alienation 1

H4b: Job-related tensions 1 positively explains work alienation 2

H4c: Job-related tensions 1 positively explains work alienation 3

H4d: Job-related tensions 2 positively explains work alienation 1

H4e: Job-related tensions 2 positively explains work alienation 2

H4f: Job-related tensions 2 positively explains work alienation 3

H5a: Role overload positively explains work alienation 1

H5b: Role overload positively explains work alienation 2

H5c: Role overload positively explains work alienation 3

H6a-H6c: Work alienation (1, 2, 3) mediates the relationship between role overload and work effort 1

H6d-H6f: Work alienation (1, 2, 3) mediates the relationship between role overload and work effort 2

H7a-H7c: Work alienation (1, 2, 3) mediates the relationship between job-related tension 1 and work effort 1

H7d-H7f: Work alienation (1, 2, 3) mediates the relationship between job-related tension 2 and work effort 1

H7g-H7i: Work alienation (1, 2, 3) mediates the relationship between job-related tension 1 and work effort 2

H7j-H7l: Work alienation (1, 2, 3) mediates the relationship between job-related tension 2 and work effort 2
The direct effects of both of job-related tension, role overload on work effort observed multiple linear regression analysis used to substantiate the relationships. Table 3 showed the results of multiple regression analysis that explained the impact of job-related tension and role overload in predicting work alienation.

Model explaining work alienation showed significant F value at p<.01. Three models of relationships between role overload and job-related tension and work alienation were explained by 17.7, 7.6 and 22 percent in the coefficient of determination of the adjusted R square respectively.

Table 3: Multiple Regression Results of the Relationship between Role Overload, Job-related tensions and Work Alienation

<table>
<thead>
<tr>
<th>Construct</th>
<th>WA1</th>
<th>WA2</th>
<th>WA3</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.59**</td>
<td>2.40**</td>
<td>19.87</td>
<td>1.84**</td>
</tr>
<tr>
<td>Role overload</td>
<td>.24**</td>
<td>-1.14*</td>
<td>-4.45</td>
<td>.11</td>
</tr>
<tr>
<td>Job-related tension 1</td>
<td>-.11</td>
<td>-1.72</td>
<td>-3.17</td>
<td>-.57**</td>
</tr>
<tr>
<td>Job-related tension 2</td>
<td>.37**</td>
<td>5.59</td>
<td>4.52</td>
<td>.66**</td>
</tr>
<tr>
<td>R square</td>
<td>.184</td>
<td>.04</td>
<td>.23</td>
<td></td>
</tr>
<tr>
<td>Adj R square</td>
<td>.177</td>
<td>.076</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>SEE</td>
<td>.54</td>
<td>.31</td>
<td>.57</td>
<td></td>
</tr>
<tr>
<td>F value</td>
<td>27.21**</td>
<td>11.09**</td>
<td>35.66**</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05, **p<.01.

The unstandardized beta coefficient proved that both role overload and job-related tension 2 were statistically significant, hence H4d, H4e, H4f, H5a and H5b were supported.

The direct relationship between job-related tension, role overload, work alienation and work effort were presented in Table 4. Both model of relationships were statistically significant at p<.01. Role overload, job-related tension 1 and work alienation proved lack of variance in unstandardized beta coefficients in explaining both work effort variables, hence H1a, H1b, H2a, H3a, H3b, H3c were not supported. However, job-related tension 2 was related to work effort in hypothesized directions at p<.01, hence H1c and H1d were supported.

Table 4: Multiple Regression Results of the Relationship between Role Overload, Job-related Tensions and Work Alienation and Work Effort

<table>
<thead>
<tr>
<th>Construct</th>
<th>WE1</th>
<th>WE2</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.52**</td>
<td>3.15**</td>
<td>10.40</td>
</tr>
<tr>
<td>Role overload</td>
<td>-.03</td>
<td>-.04</td>
<td>-.08*</td>
</tr>
<tr>
<td>Job-related tension 1</td>
<td>-.04</td>
<td>-.13</td>
<td>-.246</td>
</tr>
<tr>
<td>Job-related tension 2</td>
<td>-.08*</td>
<td>-.37**</td>
<td>-.95</td>
</tr>
<tr>
<td>Work alienation 1</td>
<td>-.00</td>
<td>.02</td>
<td>.32</td>
</tr>
<tr>
<td>Work alienation 2</td>
<td>-.01</td>
<td>-.27</td>
<td>1.17</td>
</tr>
</tbody>
</table>
4.3 Mediation Analysis

We conducted two sets of mediational analyses to examine, first, whether the relation between the job-related tensions, role overload and work effort comprised of work effort 1 and work effort 2 were mediated by three work alienation variables consist of work alienation 1, 2 and 3. These analyses were based on a bootstrapping method recommended for smaller samples (MacKinnon et al. (2002), Preacher & Hayes (2004) and were computed with an SPSS macro that estimated direct and indirect effects with multiple mediators (Preacher & Hayes, 2008). The bootstrap estimates presented here were based on 5,000 bootstrap samples. Statistical significance with alpha set at .05 indicated by the 95% bias corrected (BC) confidence intervals (CI) not crossing zero. (See Figure 2-3 for graphical displays of all mediation models).

The mediated relationship results observed the indirect effect of multiple mediators based on (Preacher & Hayes, 2004; Preacher & Hayes, 2008). The analysis utilized (Hayes, 2013) macros in SPSS 19. The multiple mediator effect was observed in detecting work alienation (WA1, WA2, WA3) factors as the mediators in the relationship between job-related tensions, role overload and work effort. Furthermore, the effect size is computed according to Preacher, Rucker and Hayes (2007), Rucker, Preacher, Tormala and Petty (2011) and Preacher and Kelly (2011).

4.4 Work Alienation as Mediator in Job-related Tensions, Role Overload and Work Effort Relationship

The mediated effects were observed in work alienation as mediator in job-related, role overload and work alienation relationship presented in Figure 2 and 3 respectively. The mediation model involving individual inputs comprised of job-related tensions (JT1, JT2), and role overload (RO) proved some significant work alienation variables when explaining work effort. The models were verified as depicted in Figure 2 and 3 were significant overall $F(4, 362) = 22.01, \ p<.01$ and $F(4, 362) = 3.15, \ p<.05$ and the variance accounted for 18.67 percent and 2.30 percent in explaining the work effort respectively. The
total effect of role overload on work effort (c path), $\beta = -.13, p < .05$ became nonsignificant (c’ path), $\beta = -.11, p > .05$ when the mediators of work alienation (WA1, WA2 and WA3) were included in the model (refer Figure 2 and 3).

The total indirect effect of job-related tensions through the WA3 was significant with a point estimate (PE) of .0495 and a 95 percent BC/CI of .0147 to .0973. The specific indirect effects of job-related tensions (PE = .0736, BC/CI = .0230 to .1490) significant at $p < .01$. The total indirect effect of role overload through WA3 was not significant with a point of estimate (PE) = -.0148, BC/CI = -.670 to .0411). The specific indirect effects of role overload (PE = .0255, BC/CI = .0058 to .0594 significant at $p < .05$. These results indicated that WA3 significantly mediated the relation between both job-related tensions, role overload and work effort. Both WA1 and WA2 were not significant. The results showed that WA3 was partial mediator of job-related tensions-work effort and full mediators of role overload-work effort relationships. Hence, H6f and H7f were substantiated.

4.5 Job-related tensions – WA – Work effort Relationships

Multiple mediators of WA in job-related tensions and work effort relationships (Preacher & Hayes, 2008)
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\[ F \text{ value} = 22.0065^{**} (4, 362) \]

<table>
<thead>
<tr>
<th></th>
<th>Indirect effect (ab path)</th>
<th>SE</th>
<th>Bias corrected confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>.0495*</td>
<td>.0211</td>
<td>.0147</td>
</tr>
<tr>
<td>WA1</td>
<td>.0034</td>
<td>.0158</td>
<td>-.0265</td>
</tr>
<tr>
<td>WA2</td>
<td>.0071</td>
<td>.0080</td>
<td>-.0062</td>
</tr>
<tr>
<td>WA3</td>
<td>.0390**</td>
<td>.0152</td>
<td>.0153</td>
</tr>
</tbody>
</table>

**Effect size calculation**

\[ ab = \frac{(.24 \times .16) / (\frac{(.24 \times .16) + - .41})}{.10333} \]

\[ 1 - P_m = 1 - .10333 = 0.8967 \]

\[ R_m = \frac{(.24 \times .16) / (- .41) = -0.3716 (95\% CI [.0152, .0757]}{c'} \]

\[ Figure 3: Work alienation mediated effect in job-related tensions 2 and work effort 2 \]

\[ R \text{ square} = .0336 \]

\[ \text{Adj R square} = .0230 \]

\[ F \text{ value} = 3.1495* (4, 362) \]
Effect size calculation

\[ P_m = \frac{ab}{ab + c'} \]

\[ 1 - P_m = 1 - \frac{ab}{ab + c'} \]

\[ R_m = \frac{ab}{c'} \]

**5. Discussions**

This section promotes or demotes previous studies’ findings that may change the state of certain claim in a theory or concept. Job-related tension and role overload were found explain higher work alienation. Hence, works of Kornhauser (1965), Sashkin (1984), Thoits (1995) were substantiated. The results proved that both psychological and behavioral theories in Beehr and Newman (1978) and Miller and Ellis (1990) studies were verified. The findings suggest that higher work pressure and assignation of task beyond one’s position shall lead to higher work alienation.

On the other hand, some direct relationships between role overload, job-related tensions and alienation were found not statistically significant. Evidence found in Tummers and Dulk (2013) was unverified when WA 3 representing meaninglessness explains increased work effort.

Moreover, work alienation (WA) proved as the direct determinant of the work effort and established some intervening roles of work alienation in the relationship between role overload, job-related tension 2 and work effort 2. The institution should oversee on the effect of role overload and meaninglessness among employees in ensuring better work effort. Similarly, work effort diminishes when employees were experiencing job-related tensions and meaninglessness needs positive changes. However, mediation model of job-related tension-WA3-WE3 showed higher coefficient of determination when its adjusted \( R^2 \) was 18.7 percent compared to role overload-WA3-WE3 adjusted \( R^2 \) was only 2.3 percent. The effect size of both model showed smaller effect.
In finer grain, the intervention of meaningfulness dimension inclusive of the academicians who believe that university involves in meaningless activities and works deteriorate role overload, job-related tension and work effort relationship. But interesting finding reveals that higher work effort is subsequently due to the work alienation’s meaningfulness. The indirect effect of work meaningfulness in the relationship was negative as expected but on the other hand its direct effect explained higher work effort. Despite of being alienated, academicians keep on contributing in their capacity. The researchers attribute this result to the scruples of conscience and perhaps a sense of responsibility towards their students, which was the biggest influence comparing with their sense of alienation at work.

Search for knowledge has to continue to a greater extent despite of the methodological requirements and schemas. Preacher et al. (2007) and Rucker et al. (2011) reiterated that earlier studies argued on the typology of mediation were subjected to either partial or full type. Decision on the mediation type would deter future knowledge inquiry if full mediation were achieved. Hence, rather than arguing on the mediation type; statistical versus practical significance, the discussion on effect size should compensate greater knowledge exploration.

6. Conclusion

The study examines the direct effect of job-related tension and role overload on work effort, and extend the analysis on the mediating role of work alienation on the relationships among job-related tension, role overload are investigated for the academics who working in El-Azhar University in Egypt. The construct employed in the study is verified with both the construct validity and reliability analysis. Correlation analysis was conducted in order to determine the non-directional and existence of the potential relationships among the variables.

Multiple regression analysis was applied to test the hypotheses substantiate both of job-related tension and role overload that has negative direct impact on work effort. Moreover, the results proved that part of work alienation variable mediated the relationships between job-related tension, role overload and work effort. The negative relationships between work alienation, job-related tension, role overload and work effort reveal that if leaders of the university want to increase the work effort of their academics they are required to reduce the effects on work alienation, job-related tension and role overload. The mediation analysis
substantiates part of the hypothesis when WA3 showed significant intervening impact in job-related tensions, role overload-WE3 relationship.

The findings contribute to motivation, psychology and job behavioral body of knowledge and by providing empirical evidence to literature through focusing on the direct relationship of job-related tension and role overload and work alienation, and job-related tension, role overload and work alienation relationships with work effort. The impact of work alienation in the mediating effect showed an interesting phenomenon that contradicts the indirect and direct effect on work effort.

Consequently, to ensure more knowledge inquiries in mediation process we suggest that more emphasis on practical significance and the effect size rather than the mediation type.

7. Limitation and Future Studies

The contribution of the current study must be viewed in the light of several limitations. First, the study was conducted in El-Azhar University in Egypt. Thus, the findings should not be generalized to other universities as a whole. Second, this study was limited to Egypt. Hence, the results may not be generalized to other countries and culture. Third, the current study was cross-sectional conducted in a specified period, hence the effect may capture the phenomena only at a particular time. Fourth, the method of the current study was quantitative approach, and the questionnaire used as a means to collect the data, hence the estimates should be interpreted with more care. The fifth limitation of the study is the concentration in the academic world. Therefore, the generalizability of the results may be limited – based on this, it may be worthwhile for future studies to conduct in different cultural context, and other sectors or industry. Furthermore, it may be worthwhile for future research to examine different variables that may have effects on work effort such as, motivation, job satisfaction, and job burnout.

8. Implication of the study

The study has a number of theoretical and practical implications for both practitioners and researchers especially those in human resource management. Theoretically, the results show the importance of lower job–related tension, work alienation and work overload in order to
increase academicians work effort. However, both lower job-related tension and role overload explains higher work effort in the presence of low work alienation.

For university management more serious efforts are required to ensure reduced job-related tension and role overload among the academicians. Simultaneously, management should ensure to curb work alienation to prevail in the organization. Specific programs that will unite thinking process towards more concerted actions among academician seem vital.

This study distinguishes from others, and perhaps is the first one that has systematically tried to combine work alienation, job–related tension, role overload and work effort in the university. Thus, the current study provides a conceptual foundation for increasing work effort. The current study extends previous studies on work alienation, job-related tension, role overload and work effort.

References


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