



EUJEM

# European Journal of Educational Management

Volume 5, Issue 1, 35 - 48.

ISSN: 2642-2344

<https://www.eujem.com/>

## Job Autonomy, Workload and Home-work Conflict as Predictors of Job Satisfaction among Employed Women in Academia

Ngozi Caroline Uwannah\*   
Babcock University, NIGERIA

Clara Ogbogo Kalu Egwuonwu  
Babcock University, NIGERIA

Nma Clarion James  
Babcock University, NIGERIA

Received: October 31, 2021 ▪ Revised: March 18, 2022 ▪ Accepted: April 17, 2022

**Abstract:** Women's work has been acknowledged as an important tool towards effective leadership and economic development in Nigeria and Africa in general. It is important therefore, to accept their presence and encourage the active role they play in the labour force which at the long run impacts the economy positively knowing full well that they make up noticeable portion of the world's population. This study evaluated the contribution of job autonomy, workload and home-work conflict to the job satisfaction of employed women in universities in Ogun State, Nigeria. A descriptive survey design was used to draw 200 women through multi-stage sampling technique. Standardized questionnaires were used to obtain responses from respondents. Four hypotheses postulated were analyzed using correlation matrices and multiple regression analysis and the level of significance was at 0.05 level. Findings show that job autonomy, workload, and home-work conflict jointly contributed to job satisfaction with 10.1% variance (Adj. R<sup>2</sup> = .101) while workload predicted female employees job satisfaction the most. It was concluded that university management should introduce flexibility in work schedules and restructure job descriptions to allow female employees have more autonomy so as to reduce the effect of home-work conflict and pressure associated with workload.

**Keywords:** *Employed women, home-work conflict, job autonomy, job satisfaction, workload.*

**To cite this article:** Uwannah, N. C., Egwuonwu, C. O. K. & James, N. C. (2022). Job autonomy, workload and home-work conflict as predictors of job satisfaction among employed women in academia. *European Journal of Educational Management*, 5(1), 35-48. <https://doi.org/10.12973/eujem.5.1.35>

### Introduction

Women all over the world are enterprising people who desire to contribute to the growth of their various families as well as their nations. Hence, despite their numerous engagements at the home front where they assume the role of mothers and wives, women are still engaging in paid work outside their homes. In Nigeria, the number of women who are working outside their homes in paid work has risen tremendously (Ofuani, 2010). In 2006 there were 39% and 28.3% of women employed in public and private sectors respectively (Ogwumike et al., 2006) making a total of 67.3% of employed women in the formal sector in 2006 and in 2015, the percentage including women aged between 15 – 64 years increased to 78.4 % (National Bureau of Statistics, 2016). In Ogun State to be specific, 76% of women are in full time employment (National Bureau of Statistics, 2016).

Women have joined the workforce in great numbers for various reasons. According to Ofuani (2010) and Wambua (2014) they are more educated now, have more training, increased urbanization and economic conditions as well as desire to have income, enjoy better life, personal satisfaction and use their skill and talents. In addition, in Nigeria, more girls have enrolled in secondary schools and the number indicate an increase from 45.3% in 2010 to 45.7% in 2015 (Jannah, 2017) while in Ogun State the level of the literate young women between ages 15 – 24 presently stood at 80.1% (Jannah, 2017). To this end, job satisfaction of professionally employed women becomes a subject of interest.

However, it is important to note that every employer desire to get the best from his employees who are being remunerated at the end of every month and without getting their best, the objectives of that employer which is to boost productivity will not be achieved. Hence, public and private organizations desire for their workers to be satisfied with their jobs since this can be related to increase in their productivity. In some situations, however, employers have failed to achieve this purpose especially among the female employees who are finding it difficult balancing their assignments at work and home (Ajayi et al., 2015) and considering the number of hours women spend on their full-time jobs every day, it becomes important to consider its interference with home chores (Ilies et al., 2007). Uwannah (2017) observes

\* **Corresponding author:**

Ngozi Caroline Uwannah, Babcock University, Ilishan-Remo, Nigeria. ✉ [uwannah@babcock.edu.ng](mailto:uwannah@babcock.edu.ng)



that many managers may be reluctant to hire women because of their high rate of absence and lateness to work as a result of getting their children ready for school in the morning, doing school runs and catering for their children when they fall sick. It is along this background that Badawi (2006) submit that an employee that is not satisfied may not be productive and could become useless to the organization.

Job satisfaction is a feeling of contentment which a worker feels internally and reflects externally in the way he or she handles situations surrounding his or her job (Uwannah, 2017). Job satisfaction may push an individual to like more aspect of her job than she dislikes it or to have a positive orientation about the work role which she is engaging in presently (Ladebo, 2008; Medina, 2012). It could reflect her feelings about various aspects of her work setting (Eslami & Gharakhani, 2012). Job satisfaction is based on the link between what workers want from their jobs and what they actually get (Medina, 2012) and could be influenced by gender, education, level, workplace environment, income and timing of work (Sisodia & Dasa, 2013).

Regrettably the Nigerian female workforce has not been accorded enough support by government to boost their job satisfaction. Ofuani (2010) laments that unannounced retrenchment could be one of the factors accounting for low job satisfaction. Furthermore, Ali and Farooqi (2014) found in their studies that females are less satisfied from their jobs in relation to role work overload due to both home and family responsibilities.

University employees in general have complex and sensitive assignments which they battle with each working day. These assignments are complex and crucial since they have to do with the future of the students in terms of quality academic achievement. In like manner, the universities in Ogun State are operating in a competitive industry especially as the government have already accredited several private universities. As at date, there are three (3) public and ten (10) private universities in Ogun State alone (Legit, 2018) hence the job satisfaction of these workers is crucial since it can impact organizational success in great measure. On that note however, in a study carried out among men and women employees in education sector, it was discovered that female employees in the education sector are not happy doing their jobs because of too much assignments, overtime work and poor remuneration (Vukonjanski et al., 2014). Despite the above, being a woman makes the assignment more complex because they have to attend to both family and work responsibilities and their attitude to work will have direct impact on them, their families and on their jobs. If they are dissatisfied, they may not effectively perform their jobs properly.

Job satisfaction in this study therefore takes into account how happy and contented employed women will be with their jobs with consideration to those variables that may likely affect them which may not likely affect their male counterparts such as caring for their children as well as their husbands which may culminate to home-work conflict. Hence, there are differences between what make male and female workers become satisfied. For women employees, work conditions, job security, flexible work arrangements and stress affect them more than men. Ali and Farooqi (2014) submit that work load, stress at work due to overload could negatively impact job satisfaction. In addition, the degree of independence female employees is given in scheduling their duties may have an influence on their job satisfaction. On this note therefore, job autonomy, work load and the extent of home-work conflict experienced by employed women may likely affect their level of job satisfaction.

Many universities do not provide for adjustment to work schedules in form of flexible working arrangements and extended maternity leave for female employees with young children. Lack of recognition that female employees with young children will need support to assist them find a middle ground while attending to work and family roles may create more conflicts with resultant effects like work dissatisfaction and poor job performance. However, with respect of being a working mother, there is the likelihood that one of the assignments may suffer, hence the need for this study.

In Nigeria, most studies have linked job satisfaction with performance, work environment, work ethics, welfare packages, pay, working conditions and turnover intentions (Asekun, 2015; Okeke, 2010). Others like Sydney-Agbor et al. (2014) studied how job satisfaction is linked with emotional intelligence and gender among local government personnel in Owerri while Iroegbu (2015) considered the link between age and gender on job satisfaction of Nigerian public sector employees, but there is scarcity of research where female employees job satisfaction are linked with workload, job autonomy and home-work conflict, hence the justification for this study.

## **Literature Review**

### *Job Satisfaction*

According to Terason (2018), job satisfaction is a positive state of emotion that directs an individual to respond effectively to a situation. It is a feeling of pleasure that enables one display signs of happiness when evaluating the situations surrounding one's job (Edem & Lawal, 2006) or the feeling a worker has about his entire job or some unique aspects of his job like how salaries and wages are fixed, level of independence given him to carry out his assignments or coworkers (Adeniji et al., 2018). Ali and Farooqi (2014) see it as the perception that employees have about their work which could be negative or positive and determine to a great extent their level of happiness or satisfaction with their jobs. Lower levels of job satisfaction may adversely impact workers' life (Ahmad et al., 2015), in form of lower life satisfaction, poor health, poor performance and attendance (Al-Zabir, et al., 2018). Job satisfaction which is viewed as the satisfaction with situations surrounding one's job or feelings of happiness towards one's work conditions, it is then

related to “an employee’s profession in terms of work substances, gender, educational level, workplace environment, location, colleagues, income, timing of work, payment, benefits, promotion, relation with supervisors, etc (Al-Zabir et al., 2018)”.

In line with the above, job satisfaction of women in full time paid work, will be affected by job autonomy. Job autonomy allows a worker to exercise discretion while carrying out her tasks (Breugh, 1999). When autonomy is granted, stress from workload and family demands will be well catered for and performance of assigned tasks becomes effective because motivation will be increased as well as satisfaction (Sisodia & Dasa, 2013). However, when management do not deem it necessary to provide autonomy in the three key areas as identified by Breugh (1999) as work methods, work scheduling and work criteria, a working woman may not be satisfied with her job because of her inability to cope with home-work conflict as well as overload.

Some researches in the past have however established that there is a strong link between job satisfaction and workload (Al-Zabir, et al., 2018; Svedberg et al., 2018), job satisfaction and home-work conflict (Chiappo & DiDona, 2014; Mukarram et al., 2012), and job satisfaction and job autonomy of employed women (Saragih, 2011; Sisodia & Dasa, 2013; Thompson & David, 2005).

### *Job Autonomy*

Job autonomy is an important feature of every work organization. It means the degree to which one’s job give him enough freedom to decide and use his initiative in arranging the order in which to carry out assigned duties and choosing the procedures to be used in getting the job done (Saragih, 2011). It is the initiative a worker is expected to display in carrying out job assignments which could occur in three dimensions as autonomy in relation to methods of carrying out the work assignment, how work is scheduled and criteria set for work (Breugh, 1999). Job autonomy is explained as having free hand to determine how to do your job and freedom to make decisions on your own. Job performance is always enhanced when people are given the free hand to determine how to get their jobs done because the more autonomy employees have at work, the more committed and satisfied and less likely they are to seek for other jobs outside the organization (Ahakwa et al., 2021). Saragih (2011) further asserted that job performance is improved because with autonomy, workers feel that their efforts and actions are appreciated and that they are given autonomy because the organization trusts them to do their jobs effectively. Breugh (1999) opine those feelings of being competent and confident that come from autonomy make employees job interesting and as a result they become more satisfied, enjoy better mental and physical health, have less stress, live longer, have positive feelings of self-efficacy and self-worth because employees perceive themselves as able, resourceful and innovative enough to carry out their assigned tasks with confidence and efficiency. Sisodia and Dasa (2013)’s report of their findings in a study conducted on how job autonomy influences workers’ dedication proves that employees who have autonomy in their jobs are less absent whereas those with less autonomy reported low job satisfaction and poor commitment. In like manner, Yang and Zhao (2018) discovered among workers who lack autonomy, less efforts invested in their jobs, less value placement on their jobs, and lower psychological satisfaction.

Despite the benefits associated with autonomy, most managers prefer to remain passive simply because they feel it could lead to some unethical behaviours and may not allow them to exercise full control over their employees (Saragih; 2011; Zhou, 2020). Despite the above, the nature of a job may affect the extent of autonomy that it can allow and levels of autonomy may vary depending on occupations and gender. Women prefer flexibility on time and location of work which is more beneficial to them in order to balance family responsibilities (Fuadiputra & Novianti, 2020). Therefore, women’s satisfaction on their job depends to a greater extent on the organization where they work. For a working woman to effectively combine her work and family responsibilities effectively and be satisfied at work, she will depend on the support provided by her employer in form of autonomy. Women who lack support from their employers in form of freedom to schedule their work to suit both roles may have home-work conflict and are not able to combine family roles with full time work and so may quit their jobs. Therefore, the connection between autonomy and employees job satisfaction cannot be over-emphasized in the life of a working woman. The freedom to select how to work, how to get the job done and when to do it to a large extent affect a working woman’s performance (Breugh, 1999). This is of utmost importance because job autonomy could lead to reduced stress because with it working women can perform their assigned tasks in such a way that threat is reduced while ability to cope is enhanced, motivation is increased, company success is enhanced, and satisfaction is heightened (Sisodia & Dasa, 2013). Saragih (2011) emphasize that people have different ways of managing the stress they encounter from the workload they carry. When the job is regimented to the extent that flexibility in scheduling task becomes hard, then workers may not be able to cope with their responsibilities and this could lead to poor performance.

### *Work Load*

Scheduled work constitutes a greater proportion of people’s life (Jannah, 2017), therefore work activities affect an individual’s psychological well-being and could be physical as well as mental (Svedberg et al., 2018). Based on the transactional stress theory aspect of occupational stress, it is believed that the work environment influences how a worker appraises a condition as either important, limiting or challenging. This evaluation is followed with physical,

mental and attitudinal displays that could result into an experience of strain when the job task is difficult or not pleasant (Ford & Jin, 2015). Work load may also result to strain when it is perceived by the employees as unfair, illegitimate (Elovainio et al., 2006; Ford, 2012) or not equitably distributed (Skarlicki & Rupp, 2010). When workers feel that their workload is not fair, they experience a feeling of strain which may result to depression (Ford & Jin, 2015).

Job satisfaction which is the feeling that workers have towards their jobs, is a reflection of the health of the worker in terms of physical, mental and psychological aspect of life (Şahin & Şahingöz, 2013). Both individual and organizational factors can affect a worker's job satisfaction. The individual factors could be genetic, family, level of education, perceptions, work experience, socio-economic background and environment while organizational factors encompass the complexity of the task, the pay, job security, working conditions, level of autonomy etc (Şahin & Şahingöz, 2013). Job satisfaction is only achieved when the personal attributes match with the organizational attributes. Therefore, work load could affect worker's motivation and performance (Ahmad et al., 2015). When workload is not equitably distributed it could adversely affect job satisfaction of employees especially females whereas equitably distributed workload results in satisfaction (Al-Zabir et al., 2018). Work load can be described as the quantity of work that should be carried out in a given period with certain quality (Şahin & Şahingöz, 2013). Casner and Gore (2010) is of the view that when workload is too high or too low, it may be detrimental to the organization as well as the individual. It could affect quality of work delivery and satisfaction (Adeniji et al., 2018; Ahmad et al., 2015). For instance, employees who experience the two may become irritable, tired, frustrated, and may commit more mistakes while low workload could go further to result in boredom and inattention. In a study carried out by Şahin and Şahingöz (2013) among workers of nutrition and accommodation departments, it was found that female employees perceive their workload as high and that affected their job satisfaction.

Workers in the university setting are expected to work with high morale and enthusiasm while attending to students and customers so as to achieve organizational goal. Therefore, there is need to cope with the heavy workload that are inherent in their jobs. Contrarily, an increase in a worker's workload may result in less satisfaction of job (Şahin & Şahingöz, 2013) which may culminate to tension, tiredness, irritability and depression (Svedberg et al., 2018). When the worker experiences the above, there will be more mistakes on the job, poor concentration, ill health and poor attendance. Hence, Ahmad et al. (2015) laments that increase in workload will definitely affect job satisfaction. This is evident in a study conducted among teaching staff of a private university where workload was found to adversely affect their research capabilities with 1/3 of them agreeing that their workload has decreased their productivity and the pharmacy practice academicians reported mild to moderate job satisfaction (Ahmad et al., 2015).

#### *Home-work Conflict*

In recent times, both couple work so as to raise income with which to cater for the family (Abbott et al., 2005; Namayandeh et al., 2011) especially in these times of recession in Nigeria. This is in contrast with what happened in the past when women only stayed at home to nurse their children and cater for the domestic well-being of the entire household. As more women enter paid work, they are bound to experience conflict (Namayandeh et al., 2011). Home-work conflict is "defined as a type of inter-role conflict in which the general demands of time devoted and strain created by the family interferes with performing work-related activities" (Chiappo & DiDona, 2014). Home-work conflict could result to higher levels of absenteeism, turnover intentions, and physical symptoms (Olorunfemi, 2009), increased depression, unhappiness, poor family functioning and less energy available for investment into other activities (Kossek et al., 2011) which may affect the achievement of the organizational goals since they could be counterproductive. Home-work conflict can be traced to excessive family demands (Namayandeh et al., 2011). Marital tension, lack of spousal support, lack of accessibility to child care facilities (Chiappo & DiDona, 2014) and feelings of inability to cope efficiently with the home duties due to present workload at work (Greenhaus & Powell, 2003) are some of the reasons for home-work conflict among female employees and this could be detrimental to their productivity because they may have excuses to be absent, make more work-related mistakes, lack focus and may not concentrate.

It has been established that the pressure an individual experience from work can affect other areas of that individual's life. For instance, when a woman who is engaged in paid employment carries out two roles that are incompatible from the job and home, stress could arise leading to conflict which may adversely affect health as well as satisfaction (Mukarram et al., 2012) and they went further to opine that most females actively taking part in full time work are also the ones doing most of the house work at home. In a bid therefore to manage the two assignments successfully, conflict could arise (Ajayi et al., 2015). This conflict is eminent due to work scheduling, work orientation, marriage experience, presence of children and spouse engagement in paid work, marital tension and lack of child-care facilities (Chiappo & DiDona, 2014; Mukarram et al., 2012) hence home-work conflict could adversely affect job satisfaction among female employees. Chiappo and DiDona (2014) strongly believe that work role interference with family roles may leave the worker in question to handle the family role before the work role and this may likely lead to absenteeism, lack of concentration, costly mistakes, accidents and injuries. Svedberg et al. (2018) in their studies conclude that home-work conflict could be the result of sickness absence excuses among men and women employees due to stress-related mental diagnosis.

*Research Hypotheses*

- H0<sub>1</sub>. Job autonomy, workload, home-work conflict and job satisfaction will not have any significant bivariate relationship among female university employees
- H0<sub>2</sub>. Job autonomy, workload and home-work conflict will not have any significant joint contribution on female university employees' job satisfaction.
- H0<sub>3</sub>. Job autonomy, workload and home-work conflict will not have any significant relative contribution on female university employees' job satisfaction.
- H0<sub>4</sub>. Status (teaching and non-teaching) will not have any significant moderating influence on the combined contribution of job autonomy, workload and home-work conflict on job satisfaction of female university employees.

**Methodology***Research Design*

The *ex-post facto* design of the descriptive research design was used. This is because variables were not manipulated but rather the effect of already occurring independent variables (job autonomy, workload and home-work conflict) on the dependent variable (job satisfaction) were explained by the researcher.

*Population/Sample Size*

All female employees (comprising of academic and non-academic staff) working in tertiary institutions in Ogun State, Nigeria make up the population of this study. Multi-stage sampling procedure was adopted to pick four (4) universities (two (2) private and two (2) public) that were used for the study. Subsequently, stratified simple random sampling technique was used to select the universities based on ownership (private and public). All categories of workers in the institutions comprising of academic and non-academic staff were part of the sample in order to give room for objectivity since it is believed that both female academic and non-academic staff job satisfaction is important as they all contribute to the achievement of organizational goal. The sample for this study is comprised of 200 female university employees (100 faculty and 100 staff members).

*Sampling Procedure*

Informed consent was obtained by the researcher who personally explained the objective of the study to the respondents after which the questionnaire was given to them in their different work units. This exercise lasted for two weeks.

*Instruments*

Job Satisfaction Questionnaire (Dubinsky & Hartley, 1986): This scale was adopted. It consists of 5 items including items like "generally speaking, I am very satisfied with this job" and the participants were required to choose their answers arranged on 5 points from strongly disagree to strongly agree. A Cronbach's alpha of 0.608 was obtained by the author.

Job Autonomy Scale (Breugh, 1999): A nine (9) item questionnaire measured on a 5-point likert scale arranged from strongly disagree to strongly agree was adopted to assess the perception of female university employees on the extent to which management provided them with autonomy in their jobs by asking questions like "I am allowed to decide how to go about getting my job done" etc. The statements are rated on a scale of 5-point likert scale ranging from strongly disagree to strongly agree. As reported by the authors, job autonomy scale has a reliability coefficient of 0.915.

Workload Scale: A self-developed scale of 5 items with questions like "I am always made to work extra time after normal closing time" etc was used to gather responses from the participants on their workload. This scale has 5-point responses ranging from strongly disagree to strongly agree to which the respondents were asked to tick on their choices. A Cronbach's alpha of 0.71 was obtained showing that the scale is suitable for the study.

Home-work Conflict Scale (Netemeyer et al., 1996): The researches adopted this scale which has 5 items ranging from strongly disagree to strongly agree, to which participants were asked to tick the extent to which they have experienced home-work conflict like "The demands of my family or children interfere with work-related activities; I have to put off doing things at work because of demands on my time at home" etc. The statements are rated on a scale of 5 ranging from strongly disagree to strongly agree. According to the developers, this scale has internal reliability of 0.86. However, to control common method bias which may likely occur, the researcher added explanatory statements that served as a guide to assist the understanding of the respondents as to what is meant by some of the questions that seem complex in the scales used.

Method of Data Analysis

The data obtained were analyzed using correlation matrices and multiple regression analysis at the 0.05 level of significance. The statistical techniques used were suitable and were not affected by outliers.

Findings/Results

Checking for Assumption of Linear Relationship

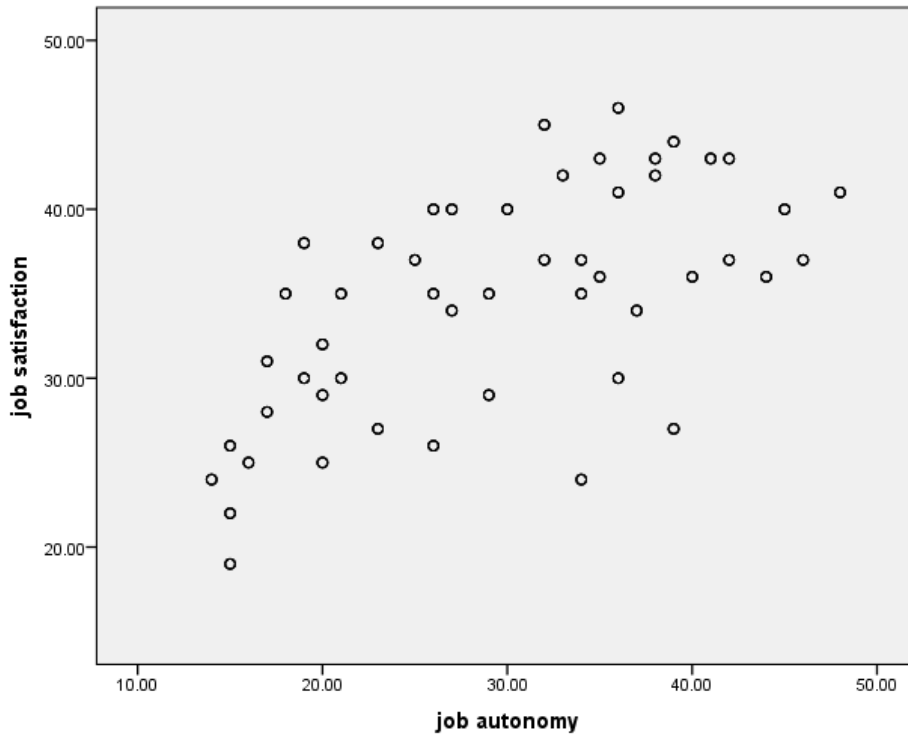


Figure 1. Job autonomy

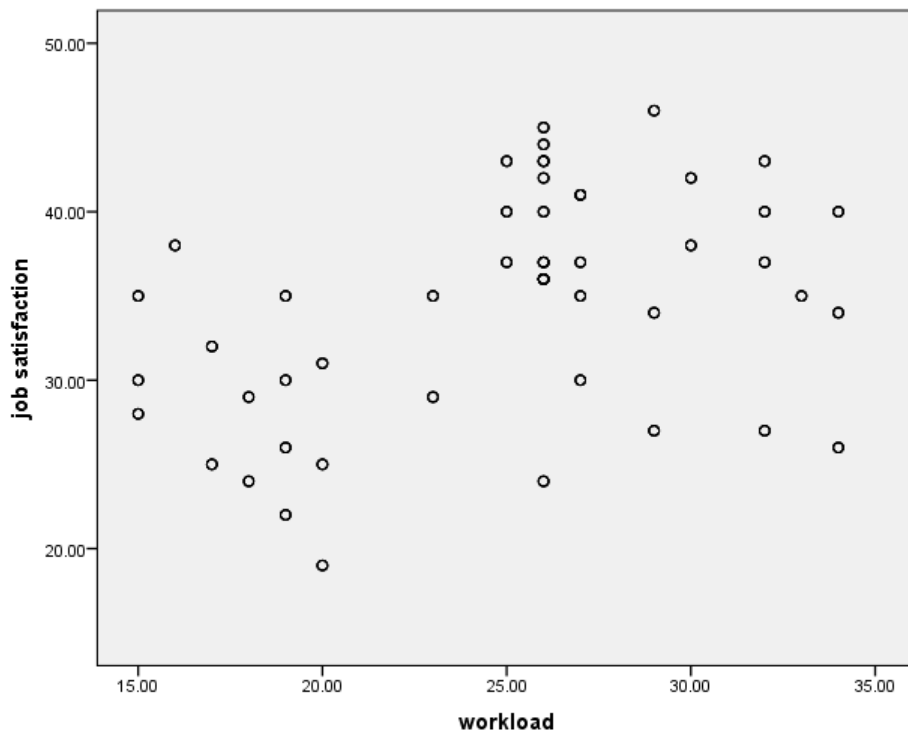


Figure 2. Workload

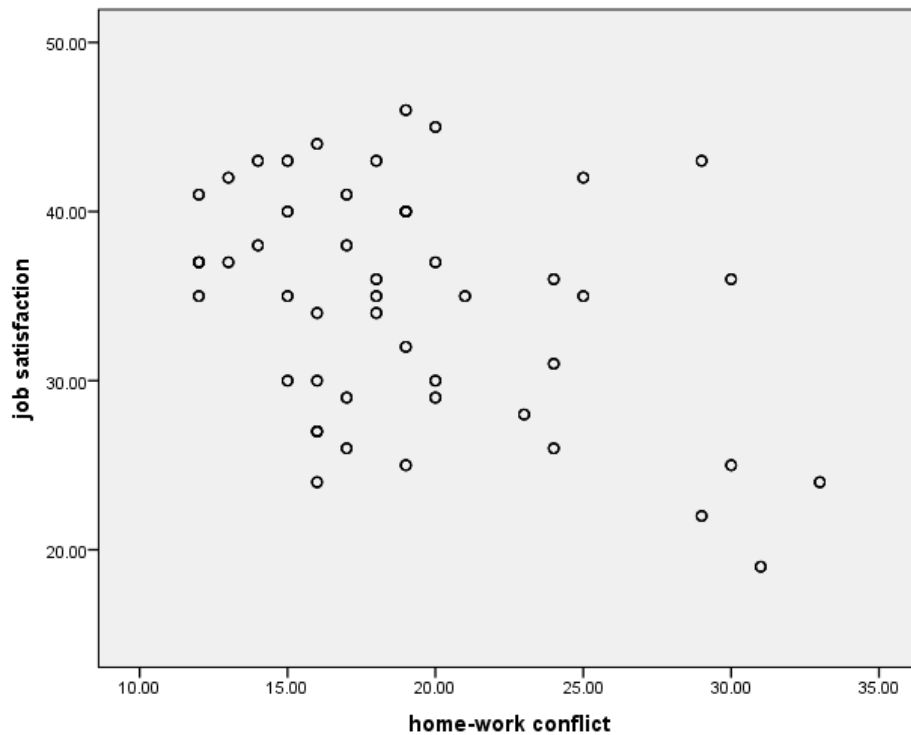


Figure 3. Home-work conflict

Lines of best fit can be fitted to these scatter plots. This indicates that there is a linear relationship between each independent and the dependent variables.

Table 1: Checking for Assumption of Multicollinearity

Variable	Job Autonomy	Workload	Home-Work Conflict
Job Autonomy	1.000	.037	-.148*
Workload		1.000	.253*
Home-Work Conflict			1.000

\*Correlation is significant at 0.05 level (2-tailed)

The bivariate correlation coefficients between the independent variables are all low: Job autonomy and workload ( $r = .037$ ), job autonomy and home-work conflict ( $r = .148$ ) and workload and home-work conflict ( $r = .253$ ). These signify that the assumption of multicollinearity was not violated.

#### Hypothesis One

Ho1: Job autonomy, workload, home-work conflict and job satisfaction will not have any significant bivariate relationship among female university employees

Table 2: Correlation Matrix for the Bivariate Relationships among variables of study

Variable	Job Autonomy	Workload	Home-Work Conflict	Job Satisfaction
Job Autonomy	1.000	.037	-.148*	.381*
Workload		1.000	.253*	-.392*
Home-Work Conflict			1.000	-.271*
Job Satisfaction				1.000

\*Correlation is significant at 0.05 level (2-tailed)

Table 2 showed both significant and non-significant results. There were significant positive relationships between job autonomy and job satisfaction ( $r = .381, p < .05$ ) and workload and home-work conflict ( $r = .253, p < .05$ ). There were significant and negative relationships between workload and job satisfaction ( $r = -.392, p < .05$ ), home-work conflict and job satisfaction ( $r = -.271, p < .05$ ), and job autonomy and home-work conflict ( $r = -.148, p < .05$ ). Finally, there was a non-significant positive relationship between job autonomy and workload ( $r = .037, p > .05$ ).

*Hypothesis Two*

Ho2: Job autonomy, workload and home-work conflict will not have any significant combined contribution on female university employees' job satisfaction.

*Table 3: Multiple Regression for Combined Contribution of the variables to Job Satisfaction*

R = .326					
R Square = .106					
Adjusted R Square = .101					
Std. Error = 12.73105					
Source of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2185.058	3	728.353	40.604	.000
Residual	3515.846	196	17.938		
Total	5700.904	199			

*Dependent Variable: Job Satisfaction*

*Predictors: (Constant), Job Autonomy, Workload, and Home-Work Conflict*

Table 3 revealed significant results ( $F_{(3, 196)} = 40.602, p < .05$ ). The null hypothesis was consequently rejected in favour of the alternative hypothesis leading to the conclusion that there is a significant combined contribution of job autonomy, workload, and home-work conflict to female university employees' job satisfaction. Results further revealed that job autonomy, workload, and home-work conflict accounted for 10.1% of the variance in job satisfaction ( $\text{Adj. } R^2 = .101$ ).

*Hypothesis Three*

Ho3: Job autonomy, workload and home-work conflict will not have any significant relative contribution on female university employees' job satisfaction.

*Table 4: Multiple Regression for Contribution of independent variables to Job Satisfaction*

Model	B	Std. Error	B	T	Sig.
(Constant)	13.036	.572		20.933	.000
Job Autonomy	.038	.056	.091	5.774	.000
Workload	.019	.013	-.275	16.260	.000
Home-Work Conflict	.113	.028	-.225	14.639	.000

*Dependent Variable: Job Satisfaction*

*Predictors: (Constant), Job Autonomy, Workload, Home-Work Conflict*

Table 4 revealed significant results. Job autonomy, workload, and home-work conflict were significant relative predictors of job satisfaction. Workload was the strongest predictor of job satisfaction ( $\beta = -.275, t = 16.260, p < .05$ ). This was successively followed by home-work conflict ( $\beta = -.225, t = 14.639, p < .05$ ) and job autonomy ( $\beta = .091, t = 5.774, p < .05$ ). Job satisfaction can be predicted from the predictor variables of this study by the multiple regression equation:

Job Satisfaction =  $.038 \times \text{Job Autonomy} + .019 \times \text{Workload} + .113 \times \text{Home-Work Conflict} + 13.036$ .

*Hypothesis Four*

Ho4: Status (teaching and non-teaching) will not have any significant moderating influence on the combined contribution of job autonomy, workload and home-work conflict on job satisfaction of female university employees.



Table 5: Regression for the Moderating Role of Job Status to Job Satisfaction

<b>Teaching Staff</b>						
<b>Model</b>	<b>Source of Variation</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sign</b>
R = .560	Regression	453.619	3	151.206	10.277	.000
R <sup>2</sup> = .314	Residual	1412.416	96	14.713		
Adj. R <sup>2</sup> = .308	Total	1866.035	99			
<b>Model</b>	<b>Source of Variation</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sign</b>
R = .541	Regression	19234.065	3	6411.355	23.311	.000
R <sup>2</sup> = .293	Residual	26403.646	96	275.038		
Adj. R <sup>2</sup> = .287	Total	45637.711	99			

*Dependent Variable: Job Satisfaction*

*Predictors: (Constant), Job Autonomy, Workload, Home-Work Conflict*

Table 5 indicated that with the predictor variables entered into the model simultaneously, there was a significant prediction of job satisfaction of teaching staff ( $F_{(3,96)} = 10.277, p < .05$ ) and that all the variables accounted for 30.8% of the variance in job satisfaction ( $\text{Adj. } R^2 = .308$ ). The table also showed that with the predictor variables introduced into the model simultaneously, there was a significant prediction of job satisfaction of non-teaching staff ( $F_{(3,96)} = 23.311, p < .05$ ). The null hypothesis was therefore accepted leading to the conclusion that job status will not significantly moderate the combined contribution of job autonomy, workload, and homework conflict to job satisfaction of female university employees.

### Discussion

Hypothesis one was tested to find out if there are bivariate relationships among job autonomy, workload, home-work conflict and job satisfaction of female university employees. The outcome of the analysis showed both significant and non-significant results. It was revealed that the relationship existing between job autonomy and job satisfaction and workload and home-work conflict was positive and significant. Furthermore, the relationships between workload and job satisfaction and home-work conflict and job satisfaction is negative while there was a non-significant positive relationship between job autonomy and workload.

This finding is in line with Saragih (2011) who found that the relationship between job autonomy and job satisfaction is positive and concluded that being in control of one's work reduces stress-related outcomes leading to greater satisfaction on the job. Also, this research outcome is in agreement with that of Fuadiputra and Novianti (2020) who discovered a high level of job satisfaction among workers that were given freedom related to autonomy in their jobs and Sisodia and Dasa (2013) in their studies also discovered that managers given higher autonomy were less absent from work.

The analysis also revealed a that the relationship between workload and home-work conflict is positive meaning that a rise in workload led to an increase in home-work conflict. Ilies et al. (2007) had earlier discovered that work overload was related to challenges of home-work conflict in their study on the relationship among workload, affective distress, cognitive, physical and emotional fatigue and work-family conflict among school employees. This study also came out with the evidence of a negative relationship between workload and job satisfaction. In tandem with this finding is Ahmed et al. (2015) and Casner and Gore (2010) who also found the relationship between workload and satisfaction to be a negative explaining that when job assignment is not equally distributed, it could be perceived as frustrating having adverse effects on well-being and satisfaction. Also, Svedberg et al. (2018) found that a one-unit increase in home-work conflict and workload led to higher cases of sickness absences due to stress-related illnesses which lowered their level of satisfaction to their jobs. Schieman et al. (2003) in their studies found that workload significantly affected female workers experience of home-work conflict especially among women on routine jobs.

The analysis of hypothesis one was followed with the discovery of home-work conflict and job satisfaction being negatively related. In their findings Chiappo and DiDonna (2014) reveal that employees experiencing home-work conflict paid more attention to solve the family needs and this affected their activities at work leading to reduced productivity and satisfaction. Finally, the relationship found between job autonomy and workload non-significantly positive and this could be linked to the fact that most women in paid employment struggle to accommodate both family and work roles and in a situation where it becomes difficult, they quit in preference of self-employment where they will be in control of their time and have enough opportunity to handle their family roles. In line with this therefore, Saragih (2011) in their studies found that in the presence of long work hours or work load, control over work activities in form of autonomy could actually reduce work stress. Therefore, when autonomy is granted, female staff may combine their workloads with their family roles conveniently.

The second hypothesis postulated that there is no significant combined contribution of job autonomy, workload, and home-work conflict to female university employees' job satisfaction. This hypothesis was tested and found to be untenable. It was therefore not accepted while the alternative hypothesis was rather accepted and it was concluded that there is a significant combined contribution of job autonomy, workload, and home-work conflict to female university employees' job satisfaction. This finding also corroborated the results in a study by Sisodia and Dasa (2013), Terason (2018) who found that more autonomy contributed to greater job satisfaction among workers corroborating the researchers' opinion that working females who have family commitments need flexibility and independence in planning how to get their jobs done without neglecting their roles as mothers and wives. Therefore, when the organization gives them autonomy, job satisfaction will be enhanced and the reverse will also be the case when autonomy is lacking. These findings were in line with that of Vukonjanski et al. (2014) who found among female employees in manufacturing and education that they have low job satisfaction as a result of work overload, extended working times and poor salaries. Also supported by these findings was that of Şahin and Şahingöz (2013) and Ahmad et al. (2015) who in their different studies found workload strongly associated with workers' job satisfaction. This research outcome supported the works of Karimi and Nouri (2009) who noticed the close link between job satisfaction and family work conflict and found that the later could affect the former. Aryee et al. (1999) also found that home-work conflict has negative effect on job satisfaction of dual career family employees of Chinese origin.

As noted by Nameyandel et al. (2011), when workers family roles clash with work roles, the job satisfaction of the employee in question will be lowered. On the contrary however, Namasivayam and Mount (2004) in their studies among Hispanic lower-income employees, found that home-work conflict contributed to higher job satisfaction as lower income Hispanic women may see work as a release from family commitment issues. This finding also confirmed the contention of this researcher that when a working woman's workload is difficult and much and she is not given any autonomy in terms of scheduling her work time as well as having the flexibility she desires from work, she may experience home-work conflict which will negatively contribute to her job satisfaction.

Hypothesis three stated that there is no significant relative contribution of job autonomy, workload, and home-work conflict to female university employees' job satisfaction. This hypothesis was tested and rejected while the alternative hypothesis was therefore accepted and it was concluded that there is a significant relative contribution of job autonomy, workload, and home-work conflict to female university employees' job satisfaction. Further analysis revealed that among all the variables of study, that workload predicted job satisfaction strongly, seconded by home-work conflict while job autonomy was the least predictor among the variables on female university employees. The reason for this is not far-fetched. Svedberg et al. (2018) has earlier reported in their studies among twins of Swedish origin that unevenly distributed home duties coupled with heavy workload is the reason why women experience home-work conflict more than men. This finding is in tandem with Ilies et al. (2007) who explained that workload is a job stressor which reflects the demands placed on employees on their jobs that is associated with negative outcomes since meeting up with work with high demands needs much effort. They further opined that such instances could result to decrease in well-being and affect. Ahmad et al. (2015) supports that work load could affect worker's motivation and performance and Al-Zabir et al. (2018) found that when workload is not equitably distributed it adversely affected job satisfaction of employees whereas equitably distributed workload resulted in satisfaction.

Among the variables, it was found that home-work conflict was the second predictor of job satisfaction of female university employees in Ogun State. Home-work conflict has been found to result to poor job attachment and dedication, hostile behaviour at home as well as psychological and physiological health challenges (Ilies et al., 2007). This finding agrees with that of Olorunfemi (2009). He found that home-work conflict resulted to higher levels of absenteeism, turnover intentions, and physical symptoms, increased depression, poor satisfaction with life, poor quality of family life and less vitality and Kossek et al. (2011) discovered that home-work conflict could lower satisfaction at work affecting the achievement of the organizational goals because he saw home-work conflict as counterproductive. Finally, job autonomy was revealed as the least predictor of job satisfaction among female university employees in Ogun State. The reason for this could be that most university employees are given free hand to carry out their jobs especially the academic staff who may come in at will and close when their classes are over for the day and may decide to carry some scripts home to mark. With this arrangement, they can still cater for their children's and other family needs while attending to their official duties. In line with this therefore, Ahakwa et al. (2021) found that job satisfaction is improved when workers are allowed to decide how to complete their assigned tasks explaining that the more autonomy employees are given at work, the more satisfied and less likely they are to seek for other jobs outside the organization. In support also, Saragih (2011) discovered that job performance improved among employees who were granted autonomy averring that they feel that their efforts and actions are appreciated by management and that and that they are trusted to do their jobs effectively.

Finally, the fourth hypothesis which stated that job status will not significantly moderate the combined contribution of job autonomy, workload, and home-work conflict to job satisfaction of female university employees was accepted and it was concluded that job status will not significantly moderate the combined contribution of job autonomy, workload, and home-work conflict to job satisfaction of female university employees. It can therefore be asserted that whether academic or non-academic, the independent variables contributed the same way to female university employees' job satisfaction. This supports the earlier assertion of the researcher that university employees in general have complex and sensitive

assignments which they battle with each working day and being a woman makes the assignment more complex and despite being an academic or non-academic staff, a woman remains a woman with the pressing needs of attending to both family and work responsibilities. Conclusively, this finding agrees with Ali and Farooqi (2014) who found in their studies that females are less satisfied from their jobs in relation to role work overload due to both home and family responsibilities.

### Conclusion

The findings revealed that job autonomy, workload and home-work conflict contributed significantly to female university employees' job satisfaction. Specifically, workload was found to predict their job satisfaction most. This has implications for university administration because despite the fact that not much has been done in this topic in this part of the world, it is important that management motivate female workers to reach their full potentials as employees.

### Recommendations

Based on the outcome of this research, it is recommended that University management should put in place some intervention programmes like flexibility in work schedules and restructuring of job descriptions of working females to allow them have more autonomy so as to reduce situation leading to home-work conflict as well as pressure associated with workload. With this, they can achieve heightened job satisfaction which at the long run will impact positively on their performance as employees while at the same time positioning them effectively as leaders in their various universities, homes and communities. Future researchers can extend the scope of this research to include employed women in establishments such as banks and manufacturing companies in Nigeria where job demands are highly tasking. The boundaries of this research can be extended to include assess the influence of job autonomy, workload and home-work conflict on the job satisfaction of employed men in universities in Nigeria as a whole.

### Limitations

This research work was carried out among female workers in universities in Ogun State of Nigeria alone. Hence, the findings cannot be generalized to other universities in other parts of Nigeria.

### Acknowledgements

The researchers would like to thank Dr. Olunmi Onunkun of Olabisi Onabanjo University, Ago-Iwoye, Nigeria for assisting in the data collection from female employees in both the private and public universities used in the study. Dr. Olunmi also provided support in the area of data analysis.

### Authorship Contribution Statement

Uwannah: Conceptualization, design, data acquisition, drafting manuscript, writing, Editing/ critical revision of manuscript, Data analysis / interpretation. Egwuonwu: Material support. James: Technical/material support

### References

- Abbott, P., Wallace, C., & Tyler, M. (2005). *An introduction to sociology: Feminist perspectives*. Routledge. <https://doi.org/10.4324/9780203489949>
- Adeniji, A., Salau, O., Awe, K., & Odunayo, O. (2018). Survey data sets on organizational climate and job satisfaction among academic staff in some selected private universities in South West Nigeria. *Data in Brief*, 19, 1688 – 1693. <https://doi.org/10.1016/j.dib.2018.06.001>
- Ahakwa, I., Tackie, E. A., Odai, L. A., Dartey, S., & Yang, J. (2021). The effects of job autonomy, organizational learning, and work environment on organizational commitment of public sector employees in the Ashanti Region of Ghana. *International Journal of Scientific Research and Management* 9(1), 2099-2110. <https://doi.org/10.18535/ijstrm/v9i1.em02>
- Ahmad, K., Khan, M. U., Srikanth, A. B., Patel, I., Nagappa, A. N., & Jamshed, S. O. (2015). Evaluation of workload and its impact on satisfaction among Pharmacy Academicians in Southern India. *Journal of Clinical and Diagnostic Research*, 9(6), FC01 – FC06. <https://doi.org/10.7860/JCDR/2015/12921.6023>
- Ajayi, F., Ojo, S., & Mordi, C. (2015). Work-family balance and coping strategies among women: Evidence from Commercial Banks in Nigeria. *European Journal of Business and Management*, 7(2), 152 – 160. <https://bit.ly/3EkllvL>
- Ali, S., & Farooqi, Y. A. (2014). Effect of workload on job satisfaction, effect of job satisfaction on employee performance and employee engagement (A case of public sector university of Gujan Waka Dusun). *International Journal of Multidisciplinary Sciences and Engineering*, 5(8), 23 – 30. <https://bit.ly/3uQE2VG>

- Al-Zabir, A., Mozahid, N., Bhuiyan, S., Lima, R. A., & Tasnim, A. (2018). Factor influencing job satisfaction of women employees in public and private sectors in Sychet City, Bangladesh. *Asian Journal of Education and Social Studies*, 2(1), 1 – 6. <https://doi.org/10.9734/AJESS/2018/41270>
- Aryee, S., Luk, V., Leung, A., & Lo, S. (1999). Role stressors, inter-role conflict, and well-being: The moderating influence of spousal support and coping behaviors among employed parents in Hong Kong. *Journal of Vocational Behavior*, 54(2), 259-278. <https://doi.org/10.1006/jvbe.1998.1667>
- Asekun, W. A. (2015). Survey of pay satisfaction, job satisfaction and employee turnover in selected business organizations in Lagos, Nigeria. *Global Journal of Social Sciences*, 14(1), 1-8. <https://doi.org/10.4314/gjss.v14i1.1>
- Badawi, G. (2006). Factors affecting the level of job satisfaction of female librarians in Nigeria: A test of Herzberg's hygiene motivation factors. *Samaru Journal of Information Studies*, 6(1 & 2) 6-12. <https://doi.org/10.4314/sjis.v6i1.40591>
- Breaugh, J. A. (1999). Further investigation of the work autonomy scales: Two studies. *Journal of Business and Psychology*, 13(3), 357 – 373. <https://doi.org/10.1023/A:1022926416628>
- Casner, S. M., & Gore, B. F. (2010). *Measuring and evaluating workload: A primer*. NASmanASTI Program in Profile. <https://go.nasa.gov/30hZlIC>
- Chiappo, L. I., & DiDona, T. (2014). Ethnicity on work-family, family-work conflicts and time based, strain-based interferences. *International Journal of Education and Social Sciences*, 1(4), 50-60. <https://bit.ly/3ryd5UK>
- Dubinsky, A. J., & Hartley, S. W. (1986). Antecedents of retail salesperson performance: A path-analytic perspective. *Journal of Business Research*, 14(3), 253–268. [https://doi.org/10.1016/0148-2963\(86\)90005-6](https://doi.org/10.1016/0148-2963(86)90005-6)
- Edem, U. S., & Lawal, O. O. (2006). Job satisfaction and publication output among Librarians in Nigeria Universities. *Library Management*, 20(2), 39-46. <https://doi.org/10.1108/01435129910248678>
- Elovainio, M., Leino-Arjas, P., Vahtera, J., & Kivimaki, M. (2006). Justice at work and cardiovascular mortality: A prospective cohort study. *Journal of Psychosomatic Research*, 61, 271–274. <https://doi.org/10.1016/j.jpsychores.2006.02.018>
- Eslami, J., & Gharakhani, D. (2012). Organizational commitment and job satisfaction. *ARPN Journal of Science and Technology*, 2(2), 85 – 91.
- Ford, M. T. (2012). Job-occupation misfit as an occupational stressor. *Journal of Vocational Behavior*, 80(2), 412–421. <https://doi.org/10.1016/j.jvb.2011.10.004>
- Ford, M. T., & Jin, J. (2015). Incongruence between workload and occupational norms for time pressure predicts depressive symptoms, *European Journal of Work and Organizational Psychology*, 24(1), 88-100. <https://doi.org/10.1080/1359432X.2013.858701>
- Fuadiputra, I. R., & Novianti, K. R. (2020). The effect of work autonomy and workload on job satisfaction of female workers in the banking sector: Mediating the role of work life balance. *The Winners*, 21(2), 85-91. <https://doi.org/10.21512/tw.v21i2.6908>
- Greenhaus, J. H., & Powell, G. N. (2003). When work & family collide: Deciding between competing role demands. *Organizational Behaviour & Human Decision Process*, 90(2), 291 – 303. [https://doi.org/10.1016/S0749-5978\(02\)00519-8](https://doi.org/10.1016/S0749-5978(02)00519-8)
- Ilies, R., Schwind, K. M., Wagner, D. T., Johnson, M., DeRue, D. S., & Ilgen, D. R. (2007). When can employees have a family life? the effects of daily workload and affect on work-family conflict and social behaviors at home. *Journal of Applied Psychology*, 92(5), 1368-1379. <https://doi.org/10.1037/0021-9010.92.5.1368>
- Iroegbu, M. N. (2015). Do age and gender have anything to do with job satisfaction: A practical outlook on the Nigerian public sector. *American Journal of Applied Psychology*, 4(4), 111-114. <https://doi.org/10.11648/j.ajap.20150404.15>
- Jannah, C. (2017, October 8). *NBS unemployment report*. Daily Post. <https://bit.ly/3jix1Qj>
- Karimi, L., & Nouri, A. (2009). Do work demands and resources predict work-to-family Conflict and Facilitation? A study of Iranian male employees, *Springer Science Business Media*, 30, 193-202. <https://doi.org/10.1007/s10834-009-9143-1>
- Kossek, E. E., Pichler, S., Bodner, T., & Hammer, L. B. (2011). Workplace social support and work-family conflict: A meta-analysis clarifying the influence of general and work-family specific supervisor and organizational support personnel. *Personnel Psychology*, 64(2) 289 – 313. <https://doi.org/10.1111/j.1744-6570.2011.01211.x>
- Ladebo, O. J. (2008). Personnel supervisory support and organizational citizenship behaviours: Is job satisfaction a mediator? *South African Journal of Psychology*, 38(3), 479–488. <https://doi.org/10.1177/008124630803800303>

- Legit. (2018, August 10). *List of state universities in Ogun State and their school fees*. legit.ng. <https://bit.ly/3KTfZuT>
- Medina, E. (2012). *Job satisfaction and employee turnover intention: What does organizational culture have to do with it?* (Master's thesis, Columbia University). Columbia University Libraries. <https://bit.ly/3rxj0cO>
- Mukarram, A., Akbar, S., Jan, Z., & Gul, A. (2012). Work-life conflict impact on female's job performance: A study of primary level female school teachers in Palestine. *European Journal of Business and Management*, 4(20), 74 – 83. <https://bit.ly/3jju42c>
- Namasivayam, K., & Mount, D. J. (2004). The relationship of work-family conflicts and family-work conflict to job satisfaction. *Journal of Hospitality & Tourism Research*, 28(2), 242-250. <https://doi.org/10.1177/109634004264084>
- Namayandeh, H., Juhari, R., & Yaacob, S. N. (2011). The effect of job satisfaction and family satisfaction on work-family conflict (WFC) and family-work conflict (FWC) among married female nurses in Shiraz-Iran. *Asian Social Science*, 7(2), 88 – 95. <https://doi.org/10.5539/ass.v7n2p88>
- National Bureau of Statistics. (2016). *2015 statistical report on women and men in Nigeria*. <https://bit.ly/37ZzxiA>
- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology*, 81(4), 400-410. <https://doi.org/10.1037/0021-9010.81.4.400>
- Ofuani, F. N. (2010). Analysis of factors affecting job satisfaction of women in paid employment in Benin City. *Education Journal of Counselling*, 3(1), 123 – 131. <https://doi.org/10.4314/ejc.v3i1.52690>
- Ogwumike, A. F., Alaba, O., Alayanda, B., & Okojie, C. E. (2006, October 10 - 12). *Labour force participation, earnings and mobility in Nigeria*. National Dissemination Workshop on Poverty and Inequality in Nigeria, African Economic Research Consortium (AERC), Nairobi, Kenya. <https://bit.ly/30m1UbQ>
- Okeke, C. (2010). *The impact of job satisfaction on employee performance in government owned enterprises*. (Master's Thesis, University of Nigeria). <https://bit.ly/3MeYlBv>
- Olorunfemi, D. Y. (2009). Family-work-conflict, information use and social competence: A case study of married post graduate students in the Faculty of Education, University of Ibadan, Nigeria. *Library Philosophy & Practice*, 235, 1 – 7. <https://bit.ly/38YpCKU>
- Şahin, H., & Şahingöz, S. A. (2013). The relationship between personnel workload and work satisfaction within accommodation and nutrition establishments. *American International Journal of Social Science*, 2(3), 10 – 18. <https://bit.ly/3uR4fDT>
- Saragih, S. (2011). The effects of job autonomy on work outcomes: Self-efficacy as an intervening variable. *International Research Journal of Business Studies*, 4(3), 203 – 215. <https://doi.org/10.21632/irjbs.4.3.203-215>
- Schieman, S., McBrier, D. B., & Gundy, K. V. (2003). Home-to-work conflict, work qualities, and emotional distress. *Sociological Forum*, 18(1), 137-164. <https://doi.org/10.1023/A:1022658929709>
- Sisodia, S., & Dasa, I. (2013). Effect of job autonomy upon organizational commitment of employees at different hierarchical level. *Psychological Thought*, 6(2), 241 – 25. <https://doi.org/10.5964/psyct.v6i2.65>
- Skarlicki, D. P., & Rupp, D. E. (2010). Dual processing and organizational justice: The role of rational versus experiential processing in third-party reactions to workplace mistreatment. *Journal of Applied Psychology*, 95, 944-952. <https://doi.org/10.1037/a0020468>
- Svedberg, P., Mather, L., Bergström, G., Lindfors, P., & Blom, V. (2018). Work-home interference, perceived total workload, and the risk of future sickness absence due to stress-related mental diagnoses among women and men: A prospective twin study. *International Journal of Behavioral Medicine*, 25(1), 103-111. <https://doi.org/10.1007/s12529-017-9669-9>
- Sydney-Agbor, N., Ebeh, R. E., Nwankwo, B. E., & Agu, S. A. (2014). Influence of emotional intelligence and gender on job satisfaction among local government employees. *Research in Psychology and Behavioral Sciences*, 2(4), 86-89. <https://doi.org/10.12691/rpbs-2-4-2>
- Terason, S. (2018). The influence of job autonomy on job satisfaction in Thai fitness trainer professionals: A moderation analysis. *Journal of Entrepreneurship & Organization Management*, 7(1), 1 - 5. <https://doi.org/10.4172/2169-026X.1000225>
- Uwannah, N. C. (2017). *Influence of organizational support, work-family conflict and job tenure on working mothers' job commitment and satisfaction in public universities in South-West Nigeria*. (Unpublished doctoral thesis). Olabisi Onabanjo University.

- Vukonjanski, J., Terek, E., & Gligorović, B. (2014). Job satisfaction of men and women employed in manufacturing sector and education in Serbia. *Scientific Journal of Agricultural Sciences*, 11(1), 25-33. <https://doi.org/10.5937/sjas11-4951>
- Wambua, A. K. (2014). *Factors affecting the performance of women small and medium enterprises in Mombasa Central Business District, Kenya* [Unpublished master's thesis]. University of Nairobi.
- Yang, F., & Zhao, Y. (2018). The effect of job autonomy on psychological well-being: The mediating role of personal initiative. *Open Journal of Social Sciences*, 6, 234-248. <https://doi.org/10.4236/jss.2018.611017>
- Zhou, E. (2020). The “Too-Much-of-a-Good-Thing” effect of job autonomy and its explanation mechanism. *Psychology*, 11, 299-313. <https://doi.org/10.4236/psych.2020.112019>