

# ROLE DEMAND MANAGEMENT AMONG ACADEMIC STAFF IN SELECTED NIGERIAN UNIVERSITY: THE EUSTRESS PERSPECTIVE

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## ABSTRACT

*Academics undergo stress, which negatively affects their performance and management does not seem to provide adequate organizational support for people suffering from occupational stress. This study examines eustress among university academic staff and provides viable recommendations that will help academics cope with stress and improve performance. Previous studies on stress among academics focused on their experience of distress, with little attempt to explore eustress particularly in the Nigerian context. This study was anchored on Yerkes-Dodson's Theory. The study adopted a mixed-method to elicit information from the sampled 444 respondents and twelve in-depth interviews were also conducted. Descriptive and inferential research methods were used for the analysis. The quantitative data were analyzed using Partial Least Square - Structural Equation Modelling (PLS-SEM), while the qualitative data were subjected to manual thematic analysis. The result of the study indicated that the use of newer digital technologies provided an important source of eustress. Academic staffs that use cutting-edge technology experience unlimited speedy access to information and a reliable means to disseminate research outputs and findings. Also, the study revealed that role demand management which comprised skill discretion, meaningfulness, challenging task, management support, and time management significantly and positively influence the performance of academics in the selected Nigerian universities.*

**Keywords:** Academic; Cognitive appraisal; Demand management; Eustress; Performance; Social support; Stress; Coping.

## INTRODUCTION

In today's dynamic work environment, changes in business conditions have led to a dynamic change in their operation (Tajpour & Hosseini, 2021). Employees work for longer hours, as the increasing demand of responsibilities requires them to apply themselves vigorously to work to meet the rising expectations about work performance (Mark & Smith, 2012). Any change in the processes of workflow, daily routine, and the way we do things induces a form of stress. Akinmayowa and Kadiri, (2016) asserted that the job of a university lecturer is very important and offers a variety of activities such as; social interaction, scholarly inquiry, and they are also expected to positively shape the future of their students. Though being aware of the diverse behaviours across contexts, still most employees/institutions have no urge to adapt their behaviours to cope up with the emerging

situations (Mehta & Ali, 2020). Eustress is viewed as a valid concept that facilitates the development of a positive emotional state, enhances employee ability to make more novel connections and associations between ideas and creativity thereby improving productivity (Majdi, Purwanto & Sunawan, 2019). Therefore, Musrrat (2013), Ahlam and Hassan (2012), Agbu and Olubiyi (2011), and Reda and Rania (2016) have advocated a more robust and holistic approach in exploring the negative and positive stress and made concrete submission about stress and coping elements which provide a graphic illustration of academic staff stress with useful suggestions rooted in research. Much of the traditional research on academic staff stress has focused mainly on negative stress which is considered harmful to employees' overall wellbeing (Anthony, 2015; Figen & Tatjana, 2015; Akanji, 2013; Mark & Smith, 2012).

Eustress as a concept has received very little treatment in the literature. As Mesler (1996) observed, there exist few studies that have advanced the concept of eustress and its impact on teaching effectiveness especially in Nigerian context. Indoo and Ajeya (2012) as well as Pama, Dulla and De-leon (2013) carried out an extensive study to understand the relationship between emotional intelligence and teaching effectiveness of members of faculty at medical and engineering colleges of Uttar Pradesh, India. Thus, there is a need to establish an empirical relationship between work routine management and the teaching effectiveness of academic staff in tertiary institutions in Nigeria. Community development is regarded as a vital and indispensable activity for all academic staff and the institution. They are efforts geared at extending the frontiers of knowledge and breaking new ground and essential components of an academic career (Sarah, 2015). The core of any University's charitable mission is the creation of new knowledge and understanding for community advancement (Karpov, 2018). Therefore, it is probable that effective management of role demand among academics may enhance their engagement in community service in Nigerian Universities. By using simple coping techniques to manage and regulate the various daily role demand, academic staff can increase their active and effective community service engagement and in turn boost performance and productivity and avoid burnout (Merino, Privado & Arnaiz, 2019). This implies that role demand management could enhance effective community service engagement by academics. Based on this proposed relationship, this study seeks to determine the empirical linkage between role demand management and the community service engagement of academic staff in tertiary institutions in the Nigerian context. This will further extend extant literature on the influence of role demand management and academic staff performance.

## THEORETICAL FRAMEWORK

The theory behind this research is the Yerkes-Dodson theory, because many studies use this theory to explain the impact of stress on job performance (Bourgeois, 2018; Duty et al., 2015; Mesurado et al., 2016; Khalaila, 2015; Jacob et al., 2013). In this study, Yekes Dodson theory will be used to explain the relationship between role demand management and community service engagement of academic staff which is a new context (Fillion et al., 2015) as cited in (Salamzadeh, 2020). This theory explains the relationship between stress, pain, health, and performance. The theory states that health and performance require a certain amount of stress (eustress), but as the stress increases beyond the optimal amount, both will deteriorate as stress increases beyond an optimal amount (Preuss et al., 2010). According to the theory, as stress level rises, going from eustress to distress, performance and health suffer, and sickness and sickness become more likely. The ideal stress level is somewhere in the middle, just before eustress changes into discomfort. Stress-related hormones, in the right

doses, have been shown to boost physical performance and mental-processing skills such as concentration, making you more alert. However, once you've reached that optimal level, all areas of performance begin to degrade in efficiency (Keller, 2013). The theory suggests that stress or arousal can actually improve performance (Khalaila, 2015). However, stress above the midpoint is believed to reduce performance and/or health and is therefore labeled stress (Bourgeois, 2018). Therefore, the theory can explain the types of stress associated with academic staff undergoing rigorous research publications, teaching and community development. The theory believes that academics with low or high pressure on publishing research, teaching and community development may experience performance compared to academics with moderate pressure.

Yerkes-Dodson's theory is relevant to this study because it shows that stress is good for performance until it reaches an optimal level, after which performance will decline. This means that an increase in the stress and excitement of academic staff may increase motivation and focus on related tasks, but only to a certain extent, when the increase exceeds this optimal point, it will cause pain. In view of the above, the concept of 'publish or perish syndrome' is considered a major source of stress. This may be due to pressure on lower-level cadres to write and publish many articles, especially to meet promotional requirements. However, the use of positive psychology can allow them to experience positive emotions, leading to a tendency to find meaning in negative events. In other words, the performance level of academic staff can be improved through moderate stress and physical arousal.

### Concept of Eustress

Eustress is an insufficiently explored phenomenon. As the examination of the PubMed database illustrates, very few analyses of stress attend to the concept of eustress. Eustress was originally explored in the work of Richard Lazarus (Lazarus, 1993). Eustress is an insufficiently explored phenomenon (Génova, & Vara, 2019). Eustress is associated with Selye's work in devising of general adaptation syndrome and highlighted the adaptive nature of the reaction to stress (Kupriyanov & Zhdanov, 2014). Actually, there are three kinds of stress according to Keller (2013) and they are: Eustress, Neustress and Distress. Eustress represent a good stress and it originates from any circumstances that generate the feelings of motivation. Preparing for marriage is a good example of eustress, seeking to be a movie star or a professional athlete including writing an article for publication may also be a type of eustress. In general, eustress experiences are gratifying, and as a result, they are not regarded as a threat. Neustress is a term that characterizes sensory inputs that have no noticeable effect; it is neither good nor harmful. This may include news of an earthquake in a far-flung part of the globe. Distress is the third category of stress, and it is sometimes abbreviated simply as stress. Distress, according to Lovallo (2015), is an aversive, negative condition in which an organism's coping and adaptation systems fail to get it to a physiological and/or psychological balance.

Brule and Morgan (2018) discovered that the major predictor of whether a stressor induces eustress or distress is the person. The "distressful or eustressful quality of every particular stimuli is dictated by how one interprets it and decides to react to it". Horiuchi, Tsuda, Aoki, Yoneda and Sawaguchi (2018) argued that a person's mindset about stress in general has a direct effect on their experience of stress, and that a person's perception of stress is greatly influenced by their mentality towards stress in general. Stress attitude was found to be a significant predictor of stress response. A study conducted by Chaudhuri, Ray, Saldanha, and Bandopadhyay (2014) revealed that the level of stress among both male and female in the work place increases as a result of lack of resources, inappropriate working

hours, poor compensation, lack of support, poor role management and a smaller number of employees. Eustress facilitates effort and the abilities required to effectively manage with stress, and appropriate coping tactics have been discovered to reduce physiological harm (Majdi, Purwanto & Sunawan, 2019). Quick, Wright, Adkins, Nelson and Quick (2013) recognized eustress as a positive, constructive and healthy results of a stressful event and stress response. Therefore, eustress is viewed as the result of the body's positive response to a stressor.

### **Role Demand Management and Community Service Engagement**

Historically, the main function of the university community is teaching. The global achievement in today institutional world is dynamic and of proficient interchange of idea (Jahangir et al., 2014). The role of universities has been highlighted in the social and economic development of communities with the addition of entrepreneurial mission to the educational and research missions of the universities (Emeagwal & Ogbonmwan, 2018). Following Alexander von Humboldt's academic revolution in the mid-19th century, scientific research was recognized as the university's second main goal, but community service was closely related to teaching, which was the university's third. The paper became popular in the last decades of the 20<sup>th</sup> century. This is based on changes in society. Therefore, teachers must actively participate in community service to promote participation in community service. Participating in a service meetings impact on the organization or institutional culture. When academic staff engage in the management of community service role demand, the level of stress will be reduced and employees have the opportunity to feel satisfied (Tu & Soman, 2014). When academic staff can consistently participate in community service as part of their daily work, they are considered trustworthy and responsible. These are marketable skills that scholars carry with them throughout their working lives. Quality management in higher education has been a great attention across the world during the past few decades (Van et al., 2019). Whether academics are naturally good at participating in community service or are encouraged by your institution, teachers can include a rich history of community service participation in their resumes (Lovering, 2018). The employer acts as an official representative for the creation and rise of effectiveness and success of an institution and achieving its goals (Tajpour et al., 2021). Participating in community service can help improve employee morale. However, employees involved in community service will not resent those who do not participate in community service.

Community service is defined as an individual's voluntarily engagement in an action that benefits his community. Participating in the community makes it more vibrant and healthy. Volunteer service allows one person to provide services and help others. Unfortunate volunteer counseling, volunteer safety on campus, babysitting, youth sports organization, free activities organization and community happiness are some examples of community service in Nigerian universities. It provides many advantages for the community including psychological, social, cognitive, critical thinking, and problem-solving.

Kruss and Visser (2017) studied the relationship between universities and industry interactions, placing institution-industry connections in the overall form of academic cooperation between various types of universities and external participants. Empirically speaking, you can increase your knowledge system by observing the development of untapped national innovation systems in developing countries such as South Africa. By analyzing the key elements of the new data set collected from the evaluation of individual scholars, the study portrays the variability of company-focused academic participation. It concluded that, in the context of South Africa and other contexts, the motivations for

promoting academic and university-industry transactions are related to the differentiated nature of universities as reputation-controlled work organizations and the way they balance and prioritize their roles in the following areas closely related to the development of the country. Similarly, Kiisla and Maeltsemees (2013) analyzed how regional university colleges implement community service tasks through their curriculum development. The results show that the role of representing the university and acting as an intermediary is the most effective in the context of the university's major and related target groups.

Similarly, Adekalu, Ismail, Krauss, and Suandi (2018) explored the experience of faculty and staff, especially professors, in career development at Nigerian universities through community engagement activities. The study exposes the views of professors on how to attract faculty and staff to participate in the community as a strategy to develop careers and enhance the reputation of their respective institutions focused on teaching and research. Through the analysis, it was found that community participation can promote the academic career development of teachers in their professional fields. More specifically, community participation in outreach helps expand knowledge by solving practical problems, promoting professional development through earned promotion, and increasing job satisfaction. Ifedili and Ifedili (2016) also investigated the organization and management of community services in Nigerian universities, targeting insensitive behaviors of faculty, staff, students and graduates in various university communities. Research data shows that community service organization and management are poor, and students are interested in participating. It is evident from the above stated that studies on role demand management and community service engagement is lacking in literature. Therefore, the following hypothesis is formulated in order to determine the influence of role demand management and community service engagement of academic staff.

*H0: Role demand management does not influence the community service engagement of the selected Nigerian university.*

## METHODOLOGY

The study adopted a mixed method (concurrent explanatory approach) to elicit information from the sampled 444 respondents (academic staff ranging from Graduate Assistant to Professor) from a total population of 6,207 and twelve in-depth interviews were also conducted on 12 academic staff of the selected Nigerian universities. Concurrent data collection strategy was adopted. This involved collecting both quantitative and qualitative data at the same stage of the research where the quantitative data was corroborated by the qualitative data. Data was collected through the administration of copies of structured questionnaire to all academic staff in six universities across three states that are top ranking in Nigeria (2020 NUC Ranking) with teaching effectiveness, research and publication output, student enrolment, feasibility, student performance, quality graduate, technology, conducive learning environment, community service as indices for performance ranking amongst others (NUC, 2020). These universities are: University of Ibadan, Oyo State, University of Lagos, Lagos State, Covenant University, Ogun State, Babcock University, Ogun State, Lagos State University, Lagos State and Ladoke Akintola University of Technology, Oyo State. Emphasis was placed on these six universities which are the first two top ranking public universities, the first two top ranking private universities and the first two top ranking state universities in terms of performance according to 2020 NUC Ranking. The emphasis on academic staff of the institution was founded on the fact that academic staff of any university are the foremost crop of work force that drive community service which is one of the parameters for measuring performance, hence, the concept of eustress may be more applicable to them.

Descriptive and inferential methods of analysis were used for this study. This helps to suggest better explanations for the phenomenon and enable us draw conclusions based on extrapolations. The formulated hypotheses were tested based on inferential method. Data analysis was carried out using IBM SPSS version 22 software. Structural Equation Modeling (SEM) was used to test the five stated hypotheses. All the procedures required in performing the analysis were followed to enable the researcher evaluate the strength of the impact of the independent variables on the dependent variables used in the study. Eustress was measured using role demand management while academic staff performance was assessed using community service engagement. Responses ranged by 5-point Likert scaling from 1= “Strongly disagree” to 5= “Strongly agree”.

## RESULTS AND DISCUSSION

The hypothesis has one exogenous variable (role demand management) and one endogenous variable (community service engagement of the selected Nigerian universities). The specific standards for evaluating the structural model as shown in Figures 1, 2 and 3 respectively were the path coefficient ( $\beta$  value), coefficient of determination/r-squared, bootstrapping analysis, the predictive power of the model and the Goodness-of-Fit (GOF) index. All the research variables have been measured using a structured questionnaire with a four Likert scale. The role demand management, which is the latent variable, was measured with five (5) items. In comparison, community service engagement of the selected Nigerian universities was measured with five (5) items, as shown in Table 1. The items adapted for measuring role demand management include skill discretion, challenging task, meeting deadlines, documentation, prioritization, time management (mental state) and management support (physical activity). For this reason, data were analyzed at the structural/measurement levels and university level. The use of Partial Least Square-Structural Equation Modeling (PLS-SEM) was adopted in this research.

<b>TABLE 1 FACTOR LOADING FOR ROLE DEMAND MANAGEMENT AND COMMUNITY SERVICE ENGAGEMENT OF THE SELECTED NIGERIAN UNIVERSITIES</b>						
	Factor Loading	Error Variance	Composite Reliability	AVE	Cronbach's Alpha	No. of Indicators
<b>Indicators</b>	<b>&gt; 0.7</b>	<b>&lt; 0.5</b>	<b>≥ 0.8</b>	<b>≥ 0.5</b>	<b>≥ 0.7</b>	
<b>Role demand management (RDM)</b>						
RDM1	0.799	0.201	0.861	0.676	0.799	5
RDM2	0.785	0.215				
RDM3	0.768	0.232				
RDM4	0.817	0.183				
RDM5	0.826	0.174				
<b>Community Service Engagement (CSE)</b>						
CSE1	0.977	0.023	0.827	0.611	0.719	5
CSE2	0.517	0.483				
CSE3	0.859	0.141				
CSE4	0.520	0.480				
CSE5	0.722	0.278				

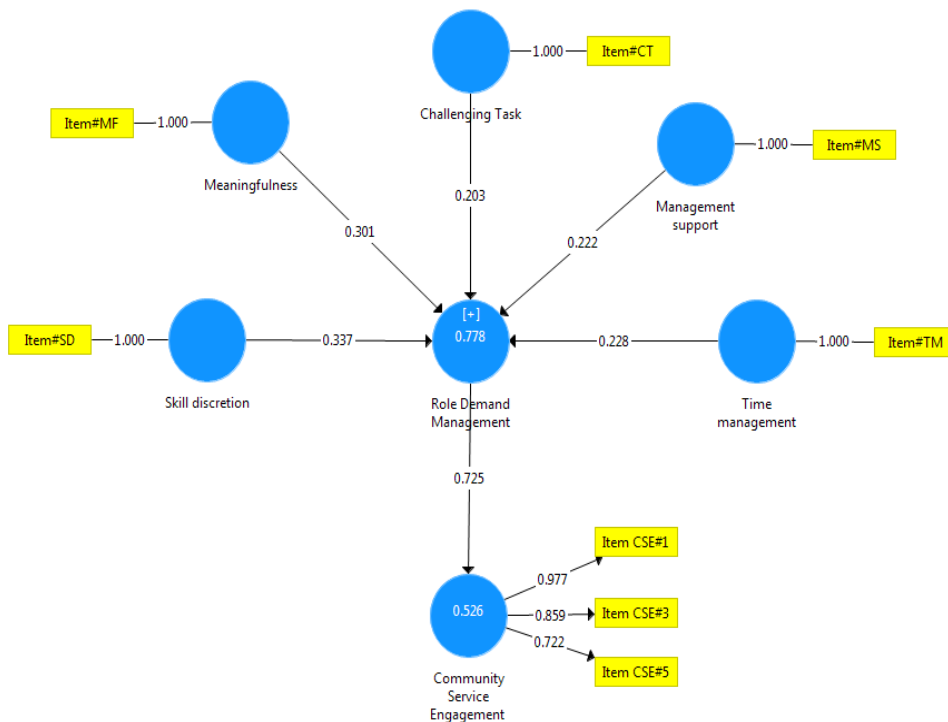
Liang (2020) recommended the threshold for all the scales and measurement items. First, the factor loading must be above the minimum threshold value of 0.60. Second, the construct composite reliability must be equal to or greater than 0.80. Third, the construct

average variance extracted estimate (AVE) must be above the minimum threshold of 0.50. Finally, the Cronbach Alpha must be equal or above 0.70 for the instruments to be reliable.

From the Table 1, it can be depicted that all the constructs of role demand management and community service engagement of the selected Nigerian universities have values higher than 0.80 and 0.70, which means that they have composite internal consistency and Cronbach Alpha reliability respectively. The factor loadings for the specific measures of construct ranged between 0.722 and 0.977. The instrument is adjudged reliable and valid since the fundamental requirement for the degree of fitness was satisfactorily met. None of the items had a loading factor lower than 0.60 and Figures 1, 2, and 3 respectively show the results of the inner structural model.

**Evaluation of the Inner Structural Model**

In structural equation modeling, the structural model which is the inner model, was used to assess the significant values of the path coefficients. The use of bootstrapping in PLS-SEM becomes essential for determining the significance level (Hussain *et al.*, 2018; (Kuo, Yeh, Kan & Chien, 2021). To achieve significant and accurate results, the default bootstrapping was conducted with 5000 subsamples (Kung, Chien, Yeh, Lin & Chou, 2020). The path coefficient values of UI, UNILAG, CU, BU, LASU and LAUTECH were presented with a similar response rate. Findings of structural models and path analysis for role demand management (RDM) on community service engagement of the selected Nigerian universities have been presented in Table 1) and illustrated in Figure 1.

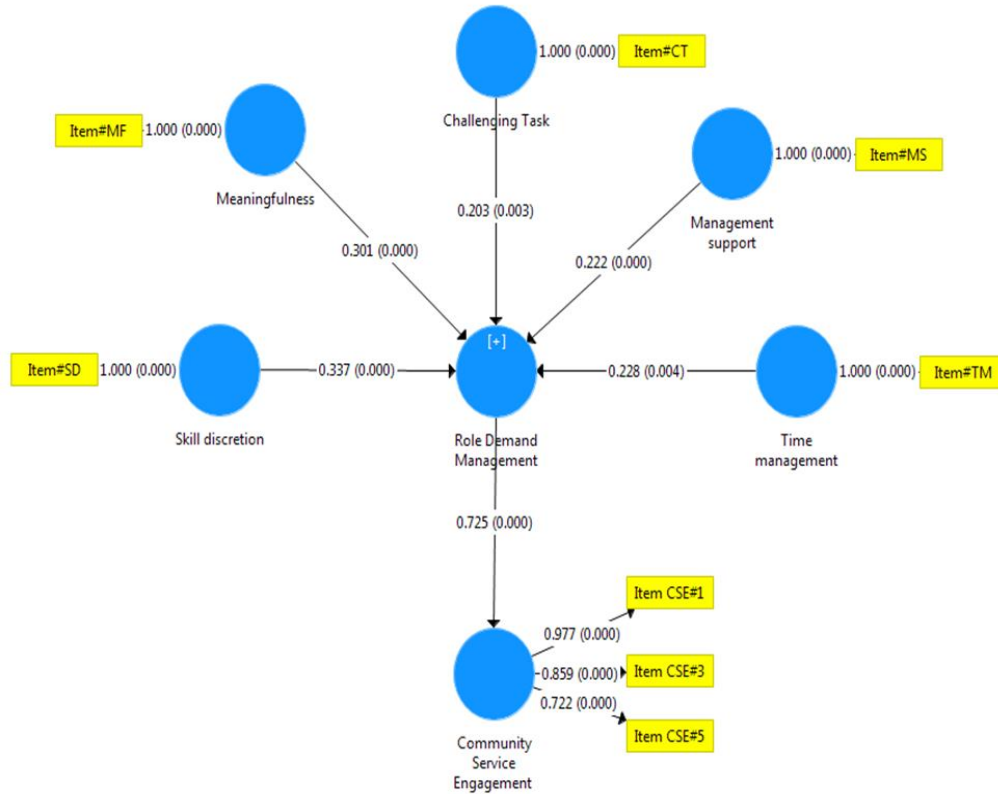


**FIGURE 1**

**PREDICTIVE RELEVANCE (PATH CO-EFFICIENT) OF ROLE DEMAND MANAGEMENT AND COMMUNITY SERVICE ENGAGEMENT OF THE SELECTED NIGERIAN UNIVERSITIES**

**Path Coefficients ( $\beta$ ) and T-statistics estimation**

In the Partial Least Square, the path coefficients and the standardized  $\beta$  coefficient were determined. The importance of the hypothesis was tested using the  $\beta$  value. The higher the  $\beta$  value, the greater the substantial effect on the endogenous latent construct. However, in Figures 2 and 3 respectively, bootstrapping for role demand management and community service engagement of universities was presented.



**FIGURE 2**

**PATH CO-EFFICIENT AND P-VALUES FOR ROLE DEMAND MANAGEMENT AND COMMUNITY SERVICE ENGAGEMENT OF THE SELECTED NIGERIAN UNIVERSITIES**

This hypothesis predicted that role demand management which comprised skill discretion, meaningfulness, challenging task, management support and time management significantly and positively influence community service engagement of the selected Nigerian universities as displayed in Table 2.



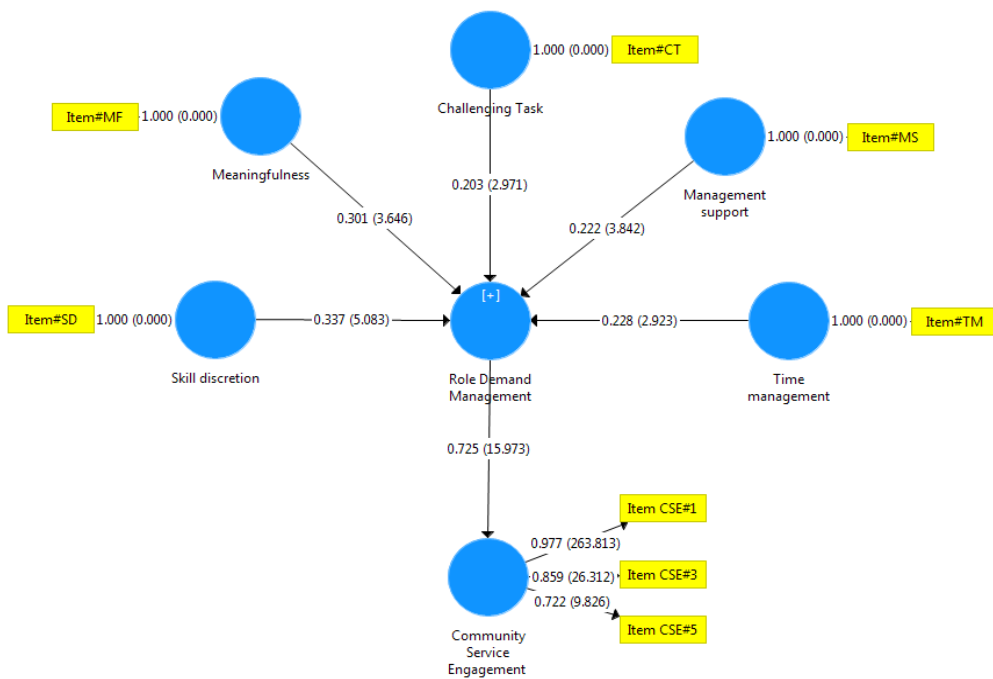


FIGURE 3

**PATH CO-EFFICIENT AND T-VALUES FOR ROLE DEMAND MANAGEMENT AND COMMUNITY SERVICE ENGAGEMENT OF THE SELECTED NIGERIAN UNIVERSITIES**

TABLE 2 PATH COEFFICIENTS FOR ROLE DEMAND MANAGEMENT AND COMMUNITY SERVICE ENGAGEMENT OF THE SELECTED NIGERIAN UNIVERSITIES					
Variables and Cross Loading	Path Co-efficient (O)	Indirect Effect (IE)	Std. Dev. (STDEV)	T-Statistics (O/STDEV)	P Values
Skill Discretion → Role demand management	0.337		0.066	5.083	0.001
Skill Discretion → Community service engagement		0.318	0.071	4.899	0.012
Meaningfulness → Role demand management	0.301		0.082	3.646	0.000
Meaningfulness → Community service engagement		0.288	0.076	3.397	0.011
Challenging task → Role demand management	0.203		0.068	2.971	0.003
Challenging task → Community service engagement		0.189	0.065	2.874	0.003
Management support → Role demand management	0.222		0.058	3.842	0.000
Management support → Community service engagement		0.204	0.062	3.688	0.000
Time management → Role demand management	0.228		0.078	2.923	0.004
Time management → Community service engagement		0.206	0.080	3.142	0.005
Role demand management → Community service engagement	0.725		0.045	15.923	0.000
R Square (R <sup>2</sup> )			R Square (R <sup>2</sup> ) Adjusted		

Role demand management → Product Innovation	0.526	0.501
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The path coefficient and bootstrapping of all constructs indicate significant relationships in the analysis at 0.05. The model indicated statistically significant path coefficient between skill discretion and community service engagement ( $\beta=0.318$ ,  $T_{val} = 4.899$ ,  $p=0.012$ ), meaningfulness and community service engagement ( $\beta=0.288$ ,  $T_{val} = 3.397$ ,  $p=0.011$ ); the challenging task and community service engagement ( $\beta=0.189$ ,  $T_{val} = 2.874$ ,  $p=0.003$ ); management support and community service engagement ( $\beta=0.204$ ,  $T_{val} = 3.688$ ,  $p=0.000$ ); and time management and community service engagement ( $\beta=0.206$ ,  $T_{val} = 3.142$ ,  $p=0.005$ ). Hence, all the path coefficients were of practical importance since the significance level is below 0.05.

The result also suggested that skill discretion and meaningfulness (task significance) have the highest beta values among the constructs that best predict community service engagement of the selected Nigerian universities; whereas, challenging task and management support had the least effect on community service engagement of the selected Nigerian universities. Specifically, the path analysis and bootstrapping based on the institutional-level was also developed to ascertain and assess how role demand management influences community service engagement of the selected Nigerian universities. This showed high predictive and explanatory power of the structural models and path analysis for the role demand management and community service engagement based on universities (Table 3).

<b>TABLE 3 SUMMARY OF REGRESSION ROLE DEMAND MANAGEMENT AND COMMUNITY SERVICE ENGAGEMENT OF THE SELECTED NIGERIAN UNIVERSITIES</b>						
<b>Model Summary</b>						
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adjusted R<sup>2</sup></b>	<b>Predictive Value</b>	<b>t</b>	<b>Sig.</b>
Role demand management	0.725 <sup>a</sup>	0.526	0.501		15.923	0.000
Community service engagement _Uni. A	0.499	0.249	0.231	0.277	4.200	0.000
Community service engagement _Uni. B	0.474	0.225	0.216	0.263	4.093	0.000
Community service engagement _Uni. C	0.568	0.323	0.302	0.316	4.927	0.000
Community service engagement _Uni. D	0.420	0.176	0.166	0.233	3.896	0.000
Community service engagement _Uni. E	0.579	0.335	0.325	0.322	5.198	0.000
Community service engagement _Uni. F	0.521	0.271	0.260	0.289	4.816	0.000

The findings indicated a positive relationship between the role demand management and Community service engagement of the selected Nigerian universities, as presented in Table 3. Regression analysis establishes how an independent variable causes the dependent variable to change, and the results of the analysis are expected to change if independent and dependent variables are swapped. Table 3 is a model fit that determines how the data fits with the model equation. The R2 was used to establish the study model variance of power.

All the research variables have been measured using a structured questionnaire with a five Likert scale. The role demand management, which is the latent variable was measured with five (5) items while Community service engagement of the selected Nigerian universities was also measured with five (5) items as shown in Figures 1, 2 and 3 respectively. The result shows that role demand management has a positive and significant effect on community service engagement of the selected Nigerian universities ( $r = .725$ ,  $r^2 = .526$ ,  $p= 0.000$ ). The correlation coefficient of 52.6% indicates that the combined effect of the predictor variables (role demand management components) have a moderate and positive relationship with community service engagement of the selected Nigerian universities.

The regression results further reveal the coefficient of determination, often known as the R square. According to Hair, Ringle & Sarstedt (2013) and Okafor, Obiadin and Obiefuna (2020), R<sup>2</sup> value of 0.71 - 0.90 is seen as *strong*; 0.51 – 0.70 is regarded as *reasonable*; 0.31 – 0.50 is regarded as *modest* and 0.10 - 0.30 is seen as *weak*. In this study, the path model of 0.526 was observed for the endogenous latent construct. This implies that role demand management explained 52.6% of the variations in community service engagement of the selected Nigerian universities in the model, suggesting a reasonable explanatory power. This implies that the other variables not studied in this model contributed 52.6% of the change in community service engagement of the selected Nigerian universities. The established regression equation and model that shows the effect of the role demand management and community service engagement of selected universities is expressed as:

$$Y = 0.743 + 0.228 TM + 0.337 SD + 0.301 MF + 0.203 CT + 0.222 MS$$

Where: Y = Community service engagement of the selected Nigerian universities

TM = Time management  
 SD = Skill Discretion  
 MF = Meaningfulness  
 CT = Challenging task  
 MS = Management support

The determination of co-efficient (R-square) for the role demand management and community service engagement of the selected Nigerian universities was also analyzed. Basically, the R<sup>2</sup> of Uni. A (r= .499, r<sup>2</sup> = .249) is relatively weak; Uni. B (r= .474, r<sup>2</sup> = .225) is weak; Uni. C (r= .568, r<sup>2</sup> = .323) is moderate; Uni. D (r= .420, r<sup>2</sup> = .176) is extremely weak; Uni. E (r= .579, r<sup>2</sup> = .335) is extremely moderate; and Uni. F (r= .521, r<sup>2</sup> = .271) is relatively weak. Overall, the result shows that the variance of role demand management explained by the community service engagement of the selected Nigerian universities is relatively moderate. Overall, the relationship between role demand management for all the selected universities and community service engagement is confirmed to be directly significant. By implication, the null hypothesis four (H<sub>04</sub>), which indicates that the role demand management does not significantly have combined effects on community service engagement of selected universities is hereby rejected. Above all, the results established that role demand management is a significant predictor of community service engagement of selected universities.

### Evaluation of the Model fitness

A wide range of fit indices covering three broad classifications (i.e., absolute fit measures, incremental fit measures and parsimony fit measures) in PLS was adopted for this study (Hu & Bentler, 1998; Okafor, Obiadin & Obiefuna, 2020). First, absolute fit measures include Goodness of Fit Index [GFI, accepted value >0.90], Chi-square/Degree of Freedom [CMIN/DF, accepted value <3], Root Mean Square Residual [RMSR, <0.08]. Secondly, the incremental fit measures comprised the Comparative Fit Index [CFI, accepted value >0.90], Normed Fit Index [NFI, accepted value >0.90]. Third, the parsimony fit measures also include the Parsimony Comparative Fit Index [PCFI, accepted value >0.50], Parsimony Normed Fit Index [PNFI, accepted value >0.50].

Absolute fit indices determine how well the sample data reproduce a model with specified apriori expectations (Ringle, et al, 2015). In the absolute fit measures, Root

Mean Square Residual (RMSR) was used as a measure of model fit estimation. A value of 0.8 or less is generally considered to indicate good fit (McNeish, An & Hancock, 2017; Maydeu-Olivares, Shi & Rosseel, 2017). RMSR value of role demand management and community service engagement for UI, UNILAG, CU, BU, LASU and LAUTECH is 0.077, 0.062, 0.071, 0.053, 0.065 and 0.070 respectively. All values are less than 0.08. The goodness of fit (GOF) index was used to evaluate the model fit (Zhang & Savalei, 2016). Measurements standards of GFI seems to be traditionally set at the 0.9 level, where anything above it indicates a good fit (Sharma et al., 2005). The CMIN/DF also indicates an acceptable fit when the hypothetical model is  $< 3$  (Xiong, Skitmore & Xia, 2015).

Incremental fit indices equate the result tested to a baseline model and ensures that all variables are uncorrelated (Okafor, Obiadin & Obiefuna, 2020). In the incremental fit measures, NFI and CFI have a conventional cut-off point at 0.9, meaning that a value above this indicates a good fit. Green (2016) also recommended a threshold of .90 to .95. Hence, the NFI value of UI, UNILAG, CU, BU, LASU and LAUTECH are 0.917, 0.938, 0.920, 0.941, 0.947 and 0.958 respectively. It can be affirmed that all the values are near 1. It means that research model is acceptable.

The parsimony fit index is often used to compare values in alternative models. The index examined how well other samples from the same population would fit the structural equation model. Parsimonious fit indices include Parsimony Comparative Fit Index [PCFI] (based on the CFI). Liang (2020) recommended a threshold of .50.

The CMIN/DF indicates an acceptable fit when hypothetical model is  $< 3$  (Scherer, Siddiq & Tondeur, 2019). The decision rule holds the acceptability of a model when CMIN/df is  $< 3$ ; RMSR  $< 0.08$ ; NFI, GFI, CFI are  $> 0.90$  (Scherer, Siddiq & Tondeur, 2019; Liang, 2020). The relative Chi-square = 301.63; CFI = .923; GFI = 0.930; NFI = .951; RMSR = .072 as displayed in Table 4. The model fit indices satisfied the critical threshold, which indicated a fitting model.

<b>Model Fit Index</b>	<b>Measures</b>	<b>Abbreviated</b>	<b>Accepted value</b>	<b>Model Value</b>
Absolute Fit Index	The goodness of Fit Index	GFI	$\geq 0.90$	0.916
	Chi-square/Degree of Freedom	CMIN/DF	$< 3.0$	2.415
	Root Mean Square Residual	RMSR	$< 0.08$	0.068
Incremental Fit Index	Comparative Fit Index	CFI	$\geq 0.90$	0.951
	Normed Fit Index	NFI	$\geq 0.90$	0.937
Parsimony Fit Index	Parsimony Comparative Fit Index	PCFI	$\geq 0.50$	0.626

The measurement model indicated that all the model fit indices were found to be within the acceptable range and above the recommended cut-off level as suggested by Liang (2020). The Table 4 shows that the RMSR of this model is 0.068, which is lesser than 0.08. This suggests that the RMSR for this model has a good fit. By implication, the null hypothesis one ( $H_{03}$ ) which indicates that the role demand management does not significantly have combined effects on community service engagement of the selected Nigerian universities is hereby rejected. Above all, the results established that the role demand management is a significant predictor of community service engagement of the selected Nigerian universities. In comparison with this study, Ifedili and Ifedili (2016) in their study on organization and management of community service in light of insensitive attitudes among staff, students, and graduates in Nigerian universities found that community service involvement is not being effectively managed while students are eager to participate. The

findings of this hypothesis is further supported by previous studies on community service engagement in Nigerian institutions.

The result is in consonance with the findings of past studies such as (Miller, 2018; Adekalu, Ismail, Krauss & Suandi, 2018; Winarno & Hermana, 2019; Taylor 2020). Community service appears to be one area where educational institutions have made substantial progress throughout time. Town gown activities, conferences and consultancies represent community service initiatives of many universities. These initiatives have produced mutual benefit for both the tertiary institutions and the communities. In connection with the quantitative findings, the qualitative method was also used to validate the quantitative findings. The qualitative findings ascertained if role demand management impacts on the community service engagement of academic staff in Nigerian universities. The findings are consistent with research that has shown that variations in demand management foster community service engagement. Some of the academic staff of the selected universities had these to say:

A respondent had this to say

*“With the increasing demand for access, some public universities are admitting beyond their carrying capacities and/or some classes are becoming unwieldy. Courses with large enrollment should be broken up into smaller classes to ensure quality of teaching and learning. There should be effective internal quality assurance policy and mechanism in each institution.”*

(IDI/ Lecturer/ State University, September 2020)

*“The performance of our graduates in the universities all over the world (when they go for higher degree training) is an indication that, in general, their quality is not a very serious issue. However, we can do more to improve the quality. A detailed review of the curriculum that incorporates world best practice will inevitably lead to better quality of graduates. We need to improve our infrastructure with obsolete equipment being replaced by modern research to tools that would lead to better products.”*

(IDI/ Lecturer/ Federal University, August 2020)

Further, a respondent had this to say:

*“Without funding, you cannot demand quality. Also, less theory should be taught and give practical training more and encourage community service.”*

(IDI/ Lecturer/ Federal University, August 2020)

The university identifies core areas of community service as training, consultancy and outreach or development service or projects, and other professional services. My research focuses more on problem solving on behalf of community. Continuous skill development should be offered if we want to compete in the community of nations.

(IDI/ Lecturer/ Private University, August 2020)

The higher education sector in Nigeria has had wide-ranging experience in community outreach activities. Individual universities have also been involved in various forms of community service, though their performance always varied from one institution to another.

(IDI/ Lecturer/ Federal University, August 2020)

My university uses community service as a criterion for academic staff promotions. I strongly believe that the nature of community services to be provided by institutions is to be directed through a thematic approach which requires the identification of local, regional and national priorities.

(IDI/ Lecturer/ State University, August 2020)

Any university's engagement with community heavily depends on the latter's informed understanding and participation. Though universities are primarily there to serve

their society that does not necessarily mean that their role is to respond to every type of demand that comes without scrutiny and prioritization. A community that imposes its will without understanding the capacity, priority and resources of the university will always be more of a challenge than a partner.

(IDI/ Lecturer/ Private University, August 2020)

My University often seeks the participation of the community and its leaders as regards the priorities to be set and the resources to be deployed. The new plan by the management of my university is to consider how the interests of the community and universities are closely and sustainably aligned in order to realize goals envisaged.

(IDI/ Lecturer/ Private University, August 2020)

It is worthy to note from the findings that universities have been most frequently criticized for failing to address the concerns and challenges of their societies, which in turn look upon them as important drivers of societal transformation. Despite the existence of community-oriented programmes at Nigerian universities, there has been little emphasis on the way such activities have been structured, resourced and most importantly aligned at sectoral and national levels. Hence, this study concludes that universities are also expected to set up an office and allocate a budget for the same purposes, based on priority areas identified. The office is to be accountable to the vice-chancellor who is a member of the council at the ministry. A community service team that comprises members of staff and students is also to be established at each university to be involved in operational tasks.

## CONCLUSION AND RECOMMENDATIONS

Community service engagement is of great importance in improving academic staff performance and reputation. It is a time-consuming and crucial task, and various tools and strategies can be employed to make it more effective and efficient. When academic staff are able to consistently engage in community service as part of their regular routine, they are viewed as dependable and accountable. These are sought-after abilities that academics use throughout their careers. Result revealed that the relationship between role demand management for all the selected universities and community service engagement is directly significant. The findings from the descriptive statistics revealed that academic staff promotes role demand management by planning schedules, positively perceiving their role, time management and prioritising responsibilities which enhances their engagement in community development of their institution. The study therefore concludes that academic staff who are able to effectively management their demanding role will voluntarily get involved in the community service of their universities which is one of the important measures of university performance.

Since community service is one of the parameters used in measuring performance for all higher institutions in Nigeria, to enhance high ranking in terms of performance, the study recommends that academic staff should be encouraged to manage their demanding role and work schedule so as to create time to engage in community service in the their various universities. Similarly, university management and non-governmental organizations should endeavour to provide institutional support and trainings on role demand management and social support and funding that relates to community involvement by academic staff. These will endear the diverse stakeholders to the universities and consequently enhance the reputation and competitiveness of the universities in the long run.

## SUGGESTIONS FOR FURTHER RESEARCH

This study was limited to only 6 universities in Lagos State, Ogun State and Oyo State only, where there are many universities spread across the country. Future studies can expand the scope within a larger sample size.

A comparative study on role demand management and academic staff performance may also be carried out between these selected universities.

## REFERENCES

- Adekalu, S. O., Ismail, I. A., Krauss, S. E., & Suandi, T. (2018). Developing Career through Community Engagement: The Nigerian University Experience. *International Journal of Education and Literacy Studies*, 6(3), 99-107.
- Agbu, J. O., & Olubiyi, K. S. (2011). Technostress in the age of information communication technology: A case study of distance education. *International Research Journal*, 2(11), 1654-1660.
- Ahlam, B. E., & Hassan, A. M. (2012). Factors associated with occupational stress and their effects on organizational performance in a Sudanese University. *Creative Education*, 3(1), 134-144.
- Akanji, B. (2013). Occupational stress: A review on conceptualizations, causes and cure. *Economic Insights – Trends and Challenges*, 65(3), 73-80.
- Akinmayowa, J. T., & Kadiri, P. A. (2016). Stress among academic staff in a Nigerian University. *Covenant Journal of Business and Social Sciences*, 6(1).
- Anthony, V. J. (2015). A study on occupational stress of employees in information technology. *International Journal of Management*, 6(7), 10-15.
- Bourgeois, T. J. (2018). *Effect of Eustress, Flow, and Test Anxiety on Physical Therapy Psychomotor Practical Examinations*. Walden University Dissertation.
- Chaudhuri, A., Ray, M., Saldanha, D., & Bandopadhyay, A. K. (2014). Effect of progressive muscle relaxation in female health care professionals. *Annals of Medical and Health Sciences Research*, 4(5), 791-795.
- Duty, S. M., Christian, L., Loftus, J., & Zappi, V. (2015). Is cognitive test-taking anxiety. *41*(2), 1-5.
- Emeagwal, L., & Ogbonmwan, K. O. (2018). Mapping the perceived role of strategic human resource management practices in sustainable competitive advantage. *Academy of Strategic Management Journal*, 17(2), 1-19.
- Figen, E., & Tatjana, A. (2015). Occupational Stress of Teachers: A Comparative Study Between Turkey and Macedonia. *International Journal of Humanities and Social Science*, 1(7) 59-65.
- Ifedili, C. J. & Ifedili C. (2016). Management of Nigerian universities and community services. *European Law Review*, 8(1). 13-22.
- Indoo, S., and Ajeya, J. (2012), 'Emotional intelligence and occupational stress among the faculty members of private medical and engineering colleges of Uttar Pradesh: A comparative study,' *Advances in Management*, 5(7)
- Jacob, T., Itzchak, E. B., & Raz, O. (2013). Stress among healthcare students – A cross disciplinary perspective. *Physiotherapy Theory and Practice*, 29(5), 401-412.
- Jahangir, Y. F., Modarresi, M., Motavasel, M., & Salamezadeh, A. (2014). Institutional factors affecting academic entrepreneurship: The case of university of Tehran. *Economic Analysis*, 47(1-2), 139-159.
- Keller, H. (2013) *The nature of stress*. Jones & Bartlett Learning.
- Khalaila, R. (2015). The relationship between academic self-concept, intrinsic motivation, test anxiety, and academic achievement among nursing students: Mediating and moderating effects. *Nurse Education Today*, 35(3), 432-438.
- Khan, A., Shah, I.M., Khan, S., and Gul, S. (2012), 'Teachers' stress, performance & resources,' *International Review of Social Sciences and Humanities*, 2(2), 21-29.
- Khan, A., Yusoff, R.B.M., and Isa, K.B. (2016), 'Examining linkages between psychological health problems, socio-demographic characteristics and workplace stressors in Pakistan's Academia.,' *International Education Studies*, 9(6), 108-119.
- Kung, S. C., Chien, T. W., Yeh, Y. T., Lin, J. C. J., & Chou, W. (2020). Using the bootstrapping method to verify whether hospital physicians have different h-indexes regarding individual research achievement: A bibliometric analysis. *Medicine*, 99(33), e21552.
- Kuo, S. C., Yeh, Y. T., Kan, W. C., & Chien, T. W. (2021). The use of bootstrapping method to compare research achievements for ophthalmology authors in the US since 2010. *Scientometrics*, 126(1), 509-520.
- Kupriyanov, R., & Zhdanov, R. (2014). The eustress concept: Problems and outlooks. *World Journal of Medical Sciences*, 11(2), 179-185.

- Liang, X. (2020). Prior sensitivity in Bayesian structural equation modeling for sparse factor loading structures. *Educational and Psychological Measurement*, 80(6), 1025-1058.
- Lovullo, W. R. (2015) *Stress and health: Biological and psychological interactions*. Sage publications.
- Mark, G., & Smith, A.P. (2012). Occupational stress, job characteristics, coping and mental health of nurses. *British Journal of Health Psychology*, 17(3), 505-521.
- Mehta, A. M., & Ali, F. H. (2020). Risk management amidst COVID-19 by Pakistani universities: A study of university of the Punjab. *Journal of Management Information and Decision Sciences*, 23(3), 150-157.
- Merino, M. D., Privado, J., & Arnaiz, R. (2019). Is there any relationship between unemployment in young graduates and psychological resources? An empirical research from the conservation of resources theory. *Journal of Work and Organizational Psychology*, 35(1), 1-8.
- Mesurado, B., Richaud, M. C., & Mateo, N. J. (2016). Engagement, flow, self-efficacy, and eustress of university students: A cross-national comparison between the Philippines and Argentina. *The Journal of Psychology*, 150(3), 281-299.
- Miller, L. N. (2018). University community engagement and the strategic planning process. *Evidence Based Library and Information Practice*, 13(1), 4-17.
- Musrrat, P. (2013). Faculty stress in a Saudi Government University. *International Journal of Humanities and Social Science*, 3(18), 180-192.
- Okafor, V. N., Obiadi, M. C., & Obiefuna, J. N. (2020). Correlations of major flame characteristics of some fire tolerant trees in South-East Nigeria by coefficient of determination (R<sup>2</sup>). *Journal of Scientific Research and Reports*, 81-98.
- Pama, A.B., Dulla, L.B., & Leon, R.C.D. (2013). Student Evaluation of Teaching Effectiveness: Does Faculty Profile Really Matter. *Catalyst*, 8(1), 94-102.
- Preuss, D., Schoofs, D., Schlotz, W., & Wolf, O. T. (2010). The stressed student: influence of written examinations and oral presentations on salivary cortisol concentrations in university students. *Stress*, 13(3), 221-229.
- Quick, J.C., Wright, T.A., Adkins, J.A., Nelson, D.L., and Quick, J.D. (2013) *Preventive stress management in organizations* (2<sup>nd</sup> ed). Washington, DC, US: American Psychological Association.
- Reda, G.M., & Rania, M.E. (2016). Occupational stress: Measuring its impact on employee performance and turnover. *European Journal of Business and Management*, 8(21).
- Salamzadeh, A. (2020). What Constitutes a Theoretical Contribution?. *Journal of Organizational Culture, Communications and Conflict*, 24(1), 1-2.
- Sarah, O. (2015). Research and publication productivity of librarians in public universities in South-West, Nigeria. *Library Philosophy and Practice (e-journal)*, University of Agriculture Abeokuta, Nigeria.
- Scherer, R., Siddiq, F., & Tondeur, J. (2019). The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education. *Computers & Education*, 128, 13-35.
- Tajpour, M., & Hosseini, E. (2021). Entrepreneurial Intention and the Performance of Digital Startups: The Mediating Role of Social Media. *Journal of Content, Community & Communication*, 13, 2-15.
- Tajpour, M., Salamzadeh, A., & Hosseini, E. (2021) Job Satisfaction in IT Department of Mellat Bank: Does Employer Brand Matter? *IPSI BgD Transactions on Internet Research*, 17(1) 15-21.
- Taylor, A. (2020). Community-University Engagement: From Chasm to Chiasm. *Educational Studies*, 56(4), 389-404.
- Van, N., Nguyen, T. T., Tran, V. C., Do, T. T., & Vu, C. T. (2019). Quality management of higher education programs in Vietnam: results from program accreditation. *Journal of Management Information and Decision Sciences*, 22(4), 507-514.
- Winarno, A., & Hermana, D. (2019). Commitment, work engagement, and research performance of lecturers, in Indonesia Private Universities. *Malaysian Online Journal of Educational Management (MOJEM)*, 7(4), 45-63.