

COMPUTING AND WORK-LIFE BALANCE OF ADMINISTRATIVE MANAGERS OF TERTIARY INSTITUTIONS IN RIVERS STATE, NIGERIA

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ABSTRACT

The study examined the extent of relationship cloud computing and work-life balance of administrative managers of tertiary institutions in Rivers State, Nigeria. The cross-sectional explanatory survey research design was adopted for the study. The population of this study consisted of eight hundred and twenty-one (821) administrative managers in the eight (8) public tertiary institutions in Rivers State. The simple size of 269 respondents was obtainable using the Taro Yamene Formula. Structured questionnaire was used as instrument for data collection after face-validation. Cronbach Alpha was used to test the internal consistency of the instrument. Out of 269 copies of the questionnaire administered, a total of 221 copies (82%) were retrieved. Arithmetic mean and standard deviation were used for the univariate analysis while the test of hypotheses was done using Correlational Statistical tool such as Spearman Rank Order Correlation. The findings revealed that dimensions of digital proficiency such as cloud computing has significant positive relationship with work-life balance of administrative managers of tertiary institutions in Rivers State, Nigeria. It was also found that digital infrastructure significantly moderates the extent to which digital proficiency relates with work-life balance. The study concluded that cloud computing bring about improvement on administrative managers of tertiary institutions in Rivers State, Nigeria. Among other things, the study recommended that Rivers State Government should set up technological systems that will support the adoption of cloud computing in order to enhance their notification, feedback, and information access processes. The study has bridged the knowledge gap that existed concerning the relationship between digital proficiency and work-life balance in literature by providing an empirical explanation of how dimensions of digital proficiency such as cloud computing, online meeting and data processing interact with work-life balance in terms of socio-personal functions, official time maximization and ample rest and leisure.

Keywords: Cloud Computing, Work-Life Balance, Official Time, Social Personal Function

INTRODUCTION

One of the major challenges faced by Administrative Managers in most of the Tertiary Institutions in Nigeria generally and Rivers State, in particular, appears to be a work-life imbalance. The multiplicity of occupational responsibilities shouldered by Administrative Managers coupled with uninterrupted connectivity makes it possible for office workers to continually infiltrate into their time and space. It appears that some of them frequently work late thereby making it difficult for them to give adequate attention to their personal life in terms of family engagements, leisure, and social engagements. The height of work-life imbalance suffered by some of the Directors, Deans, Heads of Departments, and Faculty Officers can be seen in terms of their inability to achieve socio-personal functions (disconnection from family and friends), inadequate rest, and leisure. Sometimes, some of them are even required to go to work on Saturdays or Sundays. The researcher's participant-observer experience as administrative staff is that some of the Administrative Managers are so engaged with their work that they hardly find time for personal life; some of them (especially the women) work so late that they are unable to give adequate attention to their spouse and children. Some of them are even unable to honour social invitations such as weddings, child dedication, birthday parties, etc.

The study's author also found that several Nigerian universities, particularly those in Rivers State, invest almost no time or resources on improving the technological literacy of their administrative managers. Despite the widespread availability of digital tools, this may explain why many administrative managers at various Rivers State tertiary institutions have poor levels of digital literacy. According to the researcher's observations and experiences, only a small percentage of administrative managers in Rivers State tertiary institutions are confident users of online communication tools including e-mail, web conferencing programmes, and cloud computing technologies. It equally appears that only a few of the Administrative Managers in Public Tertiary Institutions are digitally inclined enough to engage in voice-texting and simple troubleshooting of digital resources. As a student, the researcher has also observed that the offices of most Administrative Managers do not have adequate digital capital as some of them even spend their own money to procure the few digital resources they use. In line with the findings of Odu (2021) and Otamiri *et al.* (2020), the level of digital literacy is still very low among administrative staff working in Tertiary Institutions in Rivers State. It appears to be so low that some of them cannot even operate the computer keyboard properly, let alone the formatting of documents. In some cases, administrative documents are even typed in commercial computer centers despite the presence of functional computer systems in some of the administrative offices (David, 2018; Frank, 2017; Edumikwo, 2019).

Another issue that prompted this study is the perceived dearth of empirical studies on the relationship between digital proficiency and work-life balance of Administrative Managers of Tertiary Institutions in Rivers State, Nigeria. Okolocha and Baba (2017) identified staff digital proficiency as one of the major determinants of lecturers' job effectiveness in Polytechnics in North-Central, Nigeria. Even the findings of David (2018) showed that digital literacies such as word computation skill and internet literacy enhance the job performance of librarians in Nigerian federal universities. A foreign-based study done by Yazon *et al.* (2019) revealed that computer literacy is one of the most important proficiencies that administrative assistants are expected to possess in universities in the United Kingdom. Other research efforts examined ICT proficiency and literacy of undergraduate students in Ogun State (John *et al.*, 2015); Community extension projects in the Philippines rely on an evaluation of public school teachers' information and communication technology skills (Las et al., 2017). These analyses demonstrated that employees who possess a wide range of digital skills perform better in their jobs. In the context of public tertiary institutions in Rivers State, however, none of these research presented empirical evidence to explain the connection between administrative managers' digital competence and their work-life balance.

Google search by the researcher revealed that work-life balance as a variable has constituted the focus of many research works in the recent past. However, it appears that its relationship with digital proficiency remains a puzzle. Orogbu et al. (2015), Ralph et al. (2016), Kefah (2016), and Fidelis (2017), to name a few, looked into the effects of implementing work-life balance practises like flexible work schedules and remote work on a variety of organisational variables, including those related to the performance of banks, factories, and the information and communications technology (ICT) sector. Workers at broadcasting stations in South-South Nigeria were studied by Otamiri and Amirize (2021) to determine the correlation between social interaction and work-life balance. Researchers found that promoting a healthy work-life balance linked to happier and more productive workers in various fields. There have been a number of studies on the topic of the work-life balance of administrative managers at higher education institutions in Rivers State, but none of them have provided a convincing empirical explanation of how factors like cloud computing, online meetings, and data processing affect this metric. Thus, in the context of Rivers State's higher education institutions, the connection between digital competence and work-life balance remains an unsolved research mystery. This is an area of ignorance that the current investigation aims to address. This is where the meat of the research is.

Research Hypotheses

The following null hypotheses were tested in the course of the study:

- Ho₁: There is no significant relationship between cloud computing and socio-personal functions by Administrative Managers of Tertiary Institutions in Rivers State, Nigeria.
- Ho₂: There is no significant relationship between cloud computing and official time maximization by Administrative Managers of Tertiary Institutions in Rivers State, Nigeria.
- Ho₃: There is no significant relationship between cloud computing and ample rest/leisure by Administrative Managers of Tertiary Institutions in Rivers State, Nigeria.

Cloud Computing and Administrative Manager Work-life Balance

Socio-personal functions, official time maximization and ample rest/leisure can be made much easier and possible by competent deployment of cloud computing. Cloud computing skill, where Google document skill, OneDrive management skill and e-mailing skill, etc. play diverse but collective roles, helps increase the productivity of a remote workforce by allowing teams to communicate and collaborate seamlessly in real-time (Ntiva, 2018). Individuals with cloud computing skills can utilize services and also collaborate over a network where distance is no longer a barrier. This plays a vital role in enhancing work-life balance through socio-personal function (career advancement, social invitation and family relationship), official time maximization (tasks accomplishment, relaxation and meeting up deadlines) and ample rest and leisure (social activities, average sleep per day and off-days). This is because through this, one can access information stored in the cloud service via a host machine anytime and from anywhere so they can collaborate with colleagues in other locations in real-time.

Supportively, Ward (2019) asserts that with the cloud service(s), official data/information can be well secure, colleagues can easily share and retrieve files from their ends, and mailable documents can be quickly produced. This is because there are the competent usages of Google document, Google drive and online database management system. This is a plus point of adopting virtual computing in business - the remote access. Employees of the organization can access any required data or information and carry on working remotely. So as to ensure adequate work-life balance through socio-personal function (career advancement, social invitation and family relationship), official time maximization (tasks accomplishment, relaxation and meeting up deadlines) and ample rest and leisure (social activities, average sleep per day and off-days). All they need is an internet connection. The majority of cloud computing services available today also offer mobile apps that can be readily used to access data from smartphones anywhere at any time. As posited by Willie (2014), proficient use of cloud computing has enhanced managers' job across diverse organizations in disseminating information and getting feedback on time. This implies that when employees collaborate, their real-time communication helps them share information concerning the organization's policies/goals, disseminate information and get feedback on time. This therefore enhances effective work-life balance through socio-personal function (career advancement, social invitation and family relationship), official time maximization (tasks accomplishment, relaxation and meeting up deadlines) and ample rest and leisure (social activities, average sleep per day and off-days) as office managers can reach out virtually to other employees in order to ensure back and forth dissemination of information, as well as communication of organization's goals/policies for clearer understanding without conflicting with their family and personal life.

Competent use of Google document, e-mailing and OneDrive management helps an administrative head to virtually assign tasks to staff, resolve issues pertaining to staff and students, and also supervise operational activities in the department/faculty properly. With easy dissemination and feedback of information across all necessary consumers as made easy by virtualization, administrative head such as HODs, Deans and Directors can be kept abreast with the current situation of operational activities in their unit, easily allot tasks to staff and also handle complaints coming from students and academic/non-academic staff as well as necessitating work-life balance

through socio-personal function (career advancement, social invitation and family relationship), official time maximization (tasks accomplishment, relaxation and meeting up deadlines) and ample rest and leisure (social activities, average sleep per day and off-days).

Person–Environment Fit Theory

The foundation of this research is the Person-Environment Fit Theory, developed by Lewin and Edwards and first published in 1962 (Osita, 2018). According to the Person-Environment Fit Theory of psychological stress, understanding people's cognitive and behavioural talents and how their capabilities (dexterity) determines how they manage or respond to job demands requires an appreciation of the interaction between the person and environment (P E). There are two theoretical presumptions that are important to this investigation: The theory posits that a mismatch between a person and his work environment (work demands) will lead to tension and uneasiness capable of hampering their level of productivity. Pressure at work and the impact of external factors on worker production are both determined by workers' skills (skill sets). Work-life balance and peak performance, according to the proponents of the person-environment fit theory (Nwakoby et al., 2015; Otamiri & Amirize, 2021), occur when an employee's skills (digital dexterity) and the workplace environment (demands of a digitalized work system) are complementary to one another. This aspect of the theory clarifies the fact that the digital skill level of Administrative can influence their ability to strike a balance their job and personal lives. An employee who can easily and speedily utilize the sophisticated digital devices and applications to do voice and video communication from remote locations, quickly send emails and SMSs, utilize a digitalized network and desktop, quickly utilize private website and mobile news application, etc. will, to a reasonable extent, find time for career advancement and family, have free time to go for lunch, complete their work while at the office, find time to engage in sports, etc. The adoption of person-environment fit theory as a major theoretical framework for this study is predicated on the fact that the theory describes the interactions and relationship between work-life balance and their digitalized working environment to a great extent. It also recognizes individual capacity (which we have termed technological level) which determines the work-life balance effectuality.

Research Design

The study used a cross-sectional, explanatory research approach. The study's population included 821 administrative managers from the 8 public tertiary institutions in Rivers State. Data for this study was culled from the most up-to-date Matriculation/Convocation Brochures of Public Tertiary Institutions and from individual interviews. Participants were deans, heads of departments, and faculty officers from all eight (8) public tertiary institutions in Rivers State, Nigeria. A total of 269 participants were used as the study's sample. The Taro Yamene Formula was used to select the sample of 269 respondents (for additional information, see Appendix D). Due to the uneven population sizes among the several universities, we used Bowley's (1960) Population Proportionate Allocation Formula to allocate samples fairly. The primary data was gathered via the use of a questionnaire.

Method of Data Analysis

Univariate analysis was performed using mean and standard deviation, while bivariate analysis was performed using Pearson's Product Moment Correlation in SPSS. The following are the criteria or foundation for the univariate analysis and interpretation:

Cloud Computing and Work-Life Balance

- Ho₁: There is no significant relationship between cloud computing and socio-personal functions by Administrative Managers of Tertiary Institutions in Rivers State, Nigeria.
- Ho₂: There is no significant relationship between cloud computing and official time maximization by Administrative Managers of Tertiary Institutions in Rivers State, Nigeria.
- Ho₃: There is no significant relationship between cloud computing and ample rest/leisure by Administrative Managers of Tertiary Institutions in Rivers State, Nigeria.

Correlations between Cloud Computing and Work-Life Balance

		Cloud Computing	Socio-Personal Functions	Official Time Maximization	Ample Rest and Leisure
	Correlation Coefficient	1.000	.755**	.578**	.688**
Spearman's rho	Cloud Computing				
	Sig. (2-tailed)	.000	.000	.000	.000
	N	221	221	221	221
	Socio-Personal Functions	.755**	1.000	.640**	.710**
	Correlation Coefficient				
	Sig. (2-tailed)	.000	.	.000	.000
	N	221	221	221	221
	Official Time Maximization	.578**	.640**	1.000	.767**
	Correlation Coefficient				
	Sig. (2-tailed)	.000	.000	.000	.000
	N	221	221	221	221
	Ample Rest and Leisure	.688**	.710	.489	1.000
	Correlation Coefficient				
	Sig. (2-tailed)	.000	.000	.000	.000
	N	221	221	221	221

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

Source: SPSS Output, 2023

The r value of 0.755 in column 2 of table above, which is smaller than the specified alpha threshold of 0.05 for the hypothesis linking cloud computing and social/personal functions, is statistically significant. The null hypothesis (Ho1) that there is no relationship between cloud computing and socio-personal functions by administrative managers of Tertiary Institutions in Rivers State, Nigeria, was rejected in favour of the alternative hypothesis (Ha1) due to a significance level less than the alpha level of 0.05. This means that administrative administrators of universities in Rivers State, Nigeria, who use cloud computing, report a significant improvement in their ability to strike a good balance between work and personal life. For the hypothesis linking cloud computing with official time maximisation, the r value of 0.578 in column 3 of table 4.19 is much lower than the specified alpha level of 0.05. The null hypothesis (Ho2) that there is no significant relationship between cloud computing and official time maximisation by Administrative Managers of Tertiary Institutions in Rivers State, Nigeria was rejected in favour of the alternative hypothesis (Ha2), with a significance level lower than the alpha level of 0.05. This indicates that administrative administrators of Tertiary Institutions in Rivers State, Nigeria benefit somewhat from using cloud computing in order to better balance their professional and personal lives. The r value of 0.688 in column 4 of table above is much lower than the specified alpha level of 0.05, suggesting that the hypothesis between cloud computing with sufficient rest and leisure time is supported. We reject Ho3, which states that there is no significant relationship between cloud computing and ample

rest/leisure by administrative managers of Tertiary Institutions in Rivers State, Nigeria, and accept Ha3, which states the opposite. This suggests that administrative administrators at tertiary institutions in Rivers State, Nigeria, are more likely to have a healthy work-life balance in terms of sufficient time for relaxation and recreation thanks to the widespread use of cloud computing. Based on the data shown above, it is clear that administrative managers at tertiary institutions in Rivers State, Nigeria who use cloud computing are better able to strike a healthy work-life balance by focusing on both their professional and personal responsibilities and taking time off when they need it.

Discussion of Findings

Cloud Computing and Work-Life Balance

The tests of hypotheses one and three revealed that there is a strong positive relationship between cloud computing and work-life balance, while the test of hypothesis two showed that there is a moderate positive relationship between cloud computing and work-life balance. This implies that the use of one Driver management skill, google document skill and E-mailing skill plays a vital role in enhancing work-life balance through socio-personal function (career advancement, social invitation and family relationship), official time maximization (tasks accomplishment, relaxation and meeting up deadlines) and ample rest and leisure (social activities, average sleep per day and off-days). This is because through this, one can access information stored in the cloud service via a host machine anytime and from anywhere so they can collaborate with colleagues in other locations in real-time. This finding corroborates with the findings of Willie (2014) posited that the proficient use of cloud computing has enhanced managers' job across diverse organizations in disseminating information and getting feedback on time. This implies that when employees collaborate, their real-time communication helps them share information concerning the organization's policies/goals, disseminate information and get feedback on time. This therefore enhances effective work-life balance through socio-personal function (career advancement, social invitation and family relationship), official time maximization (tasks accomplishment, relaxation and meeting up deadlines) and ample rest and leisure (social activities, average sleep per day and off-days) as office managers can reach out virtually to other employees in order to ensure back and forth dissemination of information, as well as communication of organization's goals/policies for clearer understanding without conflicting with their family and personal life. Competent use of Google document, e-mailing and onedrive management helps an administrative head to virtually assign tasks to staff, resolve issues pertaining to staff and students, and also supervise operational activities in the department/faculty properly. With easy dissemination and feedback of information across all necessary consumers as made easy by virtualization, administrative head such as HODs, Deans and Directors can be kept abreast with the current situation of operational activities in their unit, easily allot tasks to staff and also handle complaints coming from students and academic/non-academic staff as well as necessitating work-life balance through socio-personal function (career advancement, social invitation and family relationship), official time maximization (tasks accomplishment, relaxation and meeting up deadlines) and ample rest and leisure (social activities, average sleep per day and off-days).

CONCLUSION

This research indicated that the administrative administrators of tertiary institutions in Rivers State, Nigeria benefited from increased digital competency in the areas of cloud computing, online meeting, and data calculation. Using cloud computing, online meetings, and data processing, administrative and faculty officers at public universities in Rivers State and elsewhere in the state may improve their ability to balance work and home life. In order to achieve a better work-life balance, administrative administrators in higher education institutions should develop their digital skills.

RECOMMENDATIONS

Based on the conclusions of this study, the following were recommended:

1. Rivers State Government should set up technological systems that will support the adoption of cloud computing in order to enhance their notification, feedback, and information access processes.

2. All administrative offices should be equipped with functional state-of-art desktop/laptop computer system, and printing machine to enhance the quality and speed of data computation across administrative offices.
3. In addition to this digital incentives in the form of hands-on computer training, paid data subscription, and smart device to enable administrators, lecturers and other stakeholders to properly use online meeting such as zoom application, WhatsApp Skype, etc.

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