

NETWORK VIRTUALIZATION AND WORK-LIFE BALANCE OF EMPLOYEES OF BROADCAST STATIONS IN NIGERIA

Justice-Amadi, Sandra Nyekazi

**Department of Educational Management, Office and Information Management Option
Faculty Of Education, University of Port Harcourt, Rivers State, Nigeria**

ABSTRACT

The study examined network virtualization and work-life balance of employees of broadcast stations in South South, Nigeria. Two (2) objectives and two (2) hypotheses were formulated to guide the study. The cross-sectional explanatory survey research design was adopted. The target population of this study was one thousand eight hundred and nineteen staff of the broadcast stations in South-South zone. The sample size comprised of four hundred (400) respondents obtained from Bowley's (1960) population allocation formula. The study adopted socio-technical theory. Spearman Rank Order Correlation Coefficient was used for bivariate analyses (testing the hypotheses one and two), The findings revealed that there is a significant positive influence of network virtualization on work-balance in terms of socio-personal function satisfaction and official time maximization of the staff of the broadcast stations in south-south zone, Nigeria. The study concluded network virtualization influences work-life balance of employees of the broadcast stations in South-South zone Nigeria. The research therefore, recommended that Management should make provision for free data subscription for employees at all level in the organization to enable work outside office setting.

Key Words: Network Virtualization, Work-Life Balance, Socio-Personal Functions, Official Time Maximization.

INTRODUCTION

Socio-personal functions satisfaction refers to a situation where employees are able to find time for self-development programmes and spending quality time with family and friends in spite of their occupational engagement. Radio and television workers as social beings are conscious of the fact that beyond being dedicated to their employer, they also need to find time for personal life like staying with their family, visitation, social invitations, personal health, and career advancement programmes (Edwards, 2019). As members of the larger society, employees are equally expected to reasonably play their social role by spending time with family members and honouring social invitations to weddings, burials, parties, and other physical social forums. However, due to occupational engagements and multiplicity of occupational responsibilities, many employees within the Nigerian workplace seem to hardly find time for themselves. Some of them go to work on a daily basis and with the advent of office digitalization, the line between work and personal life is getting slimmer.

While at work, the average employee in a broadcast station is constantly faced with the dilemma of dividing their attention between official duties and personal engagements. For instance, mobile technology makes it possible for employees to be still be contacted via voice call or social media platforms by friend and family members during official hours. This makes it somehow difficult for employees to concentrate and maximize their official hours (Gartner, 2017). Official time maximization refers to the ability of a staff to productively use their official time to complete assigned tasks without undue delay. An employee can therefore, be said to be achieving work-life balance, if personal engagements do not interfere or make it difficult for him/her to accomplish tasks on time. Unfortunately, what the researcher observes in some of the broadcast stations is a situation where employees often face time stress and regularly take official assignments home for completion. Sometimes, such unfinished assignments are still returned to the office the next day and this adds to the unending pile of unfinished tasks. Such individuals get so busy and stressed out in the office that they hardly find time to even go for lunch. When this happens, it is suggestive

that the employee is facing work-life imbalance. Another trait associated with work-life balanced employees is ample rest and leisure.

Thus, network virtualization refers to the digital process of making the private network of an organization accessible by authorized members beyond the physical office space via internet-compliant mobile devices anywhere and anytime. With virtualization technology, almost all the television and radio stations have official website housing their database and other web-based communication subsystems which makes it possible for staff to engage in virtual collaboration. The most innovative ones have even gone as far as deploying private network portals that make it possible for staff to access their computer desktop on their mobile devices by simply logging into their desktop virtualization application. Another key component of the network virtualization deployed in some of the broadcast stations in Nigeria today is mobile news application. Mobile news applications are specially designed mobile phone-compliant software with features that enables a television or radio corporation to securely virtualize their internal and external communication channels. Apparently, some of the broadcast stations have some form of network virtualization infrastructure, how much and how well they are being used to achieve digital administration in these organizations remains a puzzle. As opined by Upadhaya et al. (2014), Manfredi and Holliday (2016), and Pattu et al. (2016), one of the essence of office digitalization is to promote work-life balance of employees.

However, the extent to which network virtualization has influenced the work-life balance of employees within the context of broadcast stations in South-South, Nigeria remains a puzzle. Google search by the research revealed that the link between network virtualization and work-life balance of employees within the realities of broadcast stations in South-South, Nigeria has not received adequate research attention. For instance, various studies done by Orogbo et al. (2015), Wambua (2016), Ralph et al. (2016), Kefah (2016), and Fidelis (2017) these scholars have a theoretical consensus of how the independent variable influences work-life but none have empirically tested how the measures adopted played role in the broadcasting industry in South South Nigeria. This goes a long way to suggest that there is a knowledge gap in this area. This gives credence to this study.

Statement of Problem

One of the major challenges facing employees of broadcast stations in Nigeria and South-South Region in particular is work-life imbalance. Given the multiplicity of occupational responsibilities shouldered by employees of broadcast stations coupled with uninterrupted connectivity which makes it possible for work to continually infiltrate into personal life. 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 workers can be seen in terms of their inability to achieve socio-personal functions satisfaction (disconnection from family and friends), inability to maximize official time, and inadequate rest and leisure.

Socio-personal functions dissatisfaction of employees is associated with the inability of some of them to pursue higher professional certification and spend quality time with family and friends in spite of occupational engagements. The researcher's interaction with some of the broadcast stations workers revealed that some of them are so engaged with their work that they hardly find time to 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.

Another sign of work-life balance is official time de-maximization. It is the inability of employees to complete tasks timeously at work and before deadlines coupled with frequent transfer of official tasks to their homes when they are supposed to be resting or attending to family issues. It appears that some of the employees face time stress and they often take office tasks home hoping to find more time to attend to them from their homes. Unfortunately, in some cases, such workload are still returned to the workplace the next day unfinished. This causes a constant clash between work

and personal life. Sometimes, employees even abandon official duties for domestic engagements such as taking their children home from school within official hours.

Away from these, other related research efforts had focused how work-life balance practices like flexible work schedule and remote work affect organizational variables such as organizational performance, job satisfaction, employee wellbeing, and employee performance (Orogbu et al., 2015; Wambua, 2016; Ralph et al., 2016; Kefah, 2016; Fidelis 2017). The findings of these set of researchers revealed that work-life balance practices enhances employee wellbeing and performance in Nigerian industries such as banks, manufacturing and ICT sectors. However, none of these studies has been able to empirically explain the relationship between network virtualization and work-life balance of employees of broadcast stations within Nigeria. This suggests that the interaction between the two variables have not received adequate research attention. This study seeks to close this knowledge by empirically examining how network virtualization interact with work-life balance and its measures such as socio-personal functions satisfaction and official time maximization within the context of broadcast stations in South-South, Nigeria.

Hypotheses

In line with the conceptual framework and objectives the following null hypotheses were formulated.

Ho1: Network virtualization system does not have any significant influence on socio-personal functions satisfaction of employees of broadcast stations in South-South, Nigeria.

Ho2: Network virtualization system does not have any significant influence on official time maximization of employees of broadcast stations in South-South, Nigeria.

Conceptual Review

The Concept of Network Virtualization

Network virtualization (NV) is defined by the ability to create logical, virtual networks that are decoupled from the underlying network hardware to ensure the network can better integrate with and support increasingly virtual environments (Wang, et al., 2016). Network virtualization (NV) abstracts networking connectivity and services that have traditionally been delivered via hardware into a logical virtual network that is decoupled from and runs independently on top of a physical network in a hypervisor. Gregory (2019) saw network virtualization as a method of combining the available resources in a network to consolidate multiple physical networks, divide a network into segments or create software networks between virtual machines (VMs).

Virtual networks exist in two forms; internal and external (TechAdvisory, 2014). Both of these terms refer to inside or outside the server. External virtualization will use tools such as switches, adapters or a network to combine one or more networks into virtual units. Internal virtualization refers to using network-like functionality in software containers on a single network server. Internal software allows Virtual Machines to exchange data on a host without using an external network. The indicators of network Digitalization in this study, however, are private website usage, desktop Digitalization, and mobile news application usage.

Work-life balance

Work-life balance primarily deals with employees' ability to properly prioritize between their work and everyday life, social life, health, family etc. Work life balance (WLB) is largely associated with matters of workers' productivity, performance and job satisfaction. Felstead et al. (2018) further suggested that the social meaning of work-life balance assumes an integrated connection between "institutional and cultural times and spaces of work and non-work matters in societies where income is mainly created and distributed through labor markets. Work life balance is the policies and procedures established by an organization with the goal to enable employees in broadcast stations to efficiently do their jobs and at the same time provide flexibility to handle personal concerns or problems at their family front (Manfredi & Holliday, 2016). However, the measures of

work-life balance in this study are socio-personal functions satisfaction and official time maximization.

Measures of Work-Life Balance

Socio-Personal Functions Satisfaction

Socio-personal functions satisfaction, according to Council of Civil Service Union/Cabinet Office (2017), is the pattern of work in an organization where employees are allowed to reach a balance in their work, career advancement programmes, and social life. In this situation, employees do not feel that either their area of career advancement or family attention is lagging behind, due to their commitment to work. Conceptually, socio-personal functions satisfaction is the ability of a worker to find time to engage in career advancement programmes as well as find time to spend with their family and friends. The social functions are the family and friends engagements, whereas the personal functions are the very personal issue of an employee such as career advancement programmes. According to Jailaxmi and Gautam (2017), it is the feeling of fulfillment emanated from leisure of meeting the family's needs as well as the official functions. The researcher has conceptualized the indicators of socio-personal functions satisfaction to be finding time for career advancement, honouring social invitation, and spending time with family.

Official Time Maximization

Official time maximization, also known as time management, is the coordination of tasks and activities to maximize the effectiveness of an individual's efforts. Gartner (2017), opines that the elements of time management include organization, planning and scheduling to best take advantage of the time available to the individual, while also taking into account that individual's particular situation and relevant characteristics. The benefits of official time maximization apply equally to both the business and its employees. When employees' working hours are managed to best effect, they tend to be happier, more creative and less prone to burnout. For the business, that translates to lower absenteeism and turnover rates and more productivity, innovation and employee advocacy which in turn provide more benefits, such as an enhanced corporate reputation and employee recruitment. This implies that organization with this measure of work-life balance has the potential to complete task early, having free time and as well have low time stress.

Relationship between Network Virtualization and Work-Life Balance

Network virtualization through the use private website, desktop virtualization and mobile news application usage enhances the level of employee work-life balance. It is clearly stated even in the assertion of Wang et al. (2016), that Network virtualization is a useful technology to achieve better utilization of infrastructures in terms of reusing a single physical or logical resource for multiple other network instances, or to aggregate multiples of these resources to obtain more functionality. Network virtualization can combine multiple physical networks to one virtual, software-based network, or it can divide one physical network into separate, independent virtual networks. This helps employees to work from any geographical location and equally have time for themselves. Nevertheless, Citrix, (2019) averred that desktop virtualization is a cloud computing offering that enables businesses to deliver cloud-hosted virtual desktops to any device, from anywhere in order to promote socio-personal functions, maximize official time and promote ample rest and leisure.

Socio-Technical Theory

This study anchored on socio-technical theory as its theoretical foundation

The socio-technical theory is attributable to Eric Trist, Ken Bamforth and Fred Emery, during the World War II era, based on their work with workers in English coal mines at the Tavistock Institute in London ([https://en.wikipedia.org/wiki/Socio technical system](https://en.wikipedia.org/wiki/Socio_technical_system), 2017). The theory is made up of two main constructs joined together: socio has to do with people and society while 'technical' has to do with machines and technology. The term "socio-technical" refers to the interrelatedness of social and technical aspects of an organization.

The socio-technical theory holds that business organizations are made up of human beings working together in social groups using equipment, tools, methodologies and knowledge to achieve desirable changes in the system and to bring about the achievement of corporate goals as well as outperforming competitors (Walker et al., 2016). This theory holds that changes in organizations and the capacity of organizations to compete favourably in the market are influenced by demands from the external environment which impacts information systems changes in an organization. The socio-technical theory describes how societal changes provoke or necessitates changes in the techniques, procedures, infrastructure and technologies used in organizations (Norris & Moon, 2015). Broadcast stations more than ever before are facing serious competition from sister institutions especially in the developed countries and as a way of coping and outperforming their competitors, individual broadcast station has to adopt office Digitalization in terms of digitalized flexible work system, social media based interactivity, and network Digitalization to harness and maximize the employees' work-life balance (socio-personal functions satisfaction, official time maximization, and ample rest and leisure).

The socio-technical theory is founded on two cardinal assumptions:

- i) The interactions of social and technical factors create the conditions for successful (or unsuccessful) system performance" (Walker, et al., 2016). These interactions are comprised partly of linear 'cause and effect' relationships, the relationships that are normally 'designed', and partly from 'non-linear', complex, even unpredictable relationships, which are those that are often unexpected.
- ii) The second major principle of socio-technical theory is that "optimization of either socio, or far more commonly the technical, tends to increase not only the quantity of unpredictable, 'un-designed', non-linear relationships, but those relationships that are actually injurious to the system's performance" (Walker, et al., 2016). Thus, second principle of socio-technical theory hinges on joint optimisation. This second principle holds that improving only one aspect of the organization (e.g. workforce) and abandoning the other element (technical computer systems and other needed gadgets) will be detrimental to the system. Both the human and technological resources of an organization must be optimized simultaneously for expected results to be achieved. The implication of the joint optimization principle of socio-technical theory in the broadcast station is that continuous capacity building to increase workers' awareness of how to use Digitalization tools may not lead to effective work-life balance in the workforce except it is matched with an upgrade of Digitalization systems such.

The justification of the socio-technical theory as the theoretical foundation of this study is based on the fact that the theory talks about how the interaction between people and digitalization affects work-life balance. It is therefore reasonable to adopt a theory such as this since the work is aimed at getting empirical evidence on how office Digitalization interacts with work-life balance.

METHODOLOGY

The explanatory cross sectional survey research design was adopted for this study. The population of the study consisted of one thousand eight hundred and nineteen (1819) staff of broadcast stations across the six (6) South-South States of Nigeria. The sample size of the study was four hundred (400) respondents. This was obtainable using the Taro Yamene Formula. Thus, bivariate analysis was done using Spearman Rank Order Correlation Coefficient through SPSS.

Result

Network Virtualization and Work-Life Balance

Ho₁: Network virtualization does not have any significant influence on socio-personal functions satisfaction of employees of broadcast stations in South-South, Nigeria.

Correlation of Network Virtualization and Socio-Personal Functions Satisfaction

			Network Virtualization	Socio-Personal Functions Satisfaction
Spearman's rho	Network Virtualization	Correlation Coefficient	.000	.454**
		Sig. (2-tailed)	.	.000
		N	300	300
	Socio-Personal Functions Satisfaction	Correlation Coefficient	.454**	.000
		Sig. (2-tailed)	.000	.
		N	300	300

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

Source: SPSS Output

The table above reveals r value of 0.454 at a $P=0.00 < 0.05$ for the hypothesis relating network virtualization and socio-personal functions satisfaction. Since the significance value 0.00 is less than the alpha level of 0.05, the null hypothesis (H_{07}) which states that network virtualization does not have any significant influence on socio-personal functions satisfaction of employees of broadcast stations in South-South, Nigeria is rejected and the alternate accepted. However, our decision rule states that correlation value within 0.3-0.5 could be considered a moderate or relatively strong correlation. Therefore, with the r value of 0.562, implies that network virtualization influences socio-personal functions satisfaction of employees of broadcast stations in South-South region of Nigeria. Thus, the correlation that exist within them is said to be a moderate one or relatively strong.

H_{02} : Network virtualization does not have any significant influence on official time maximization of employees of broadcast stations in South-South, Nigeria.

Correlations of Network Virtualization and Official Time Maximization

			Network Virtualization	Official Time Maximization
Spearman's rho	Network Virtualization	Correlation Coefficient	.000	.881**
		Sig. (2-tailed)	.	.000
		N	300	300
	Official Time Maximization	Correlation Coefficient	.881**	.000
		Sig. (2-tailed)	.000	.
		N	300	300

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

Source: SPSS Output

The table above reveals r value of 0.881 at a $P=0.00 < 0.05$ for the hypothesis relating network virtualization and official time maximization. Since the significance value 0.00 is less than the alpha level of 0.05, the null hypothesis (H_{08}) which states that network virtualization does not have any significant influence on official time maximization of employees of broadcast stations in South-South, Nigeria is rejected and the alternate accepted. With a correlation coefficient of 0.881, the result implies that network virtualization has a very strong positive correlation with official time maximization of employees of broadcast stations in South-South, Nigeria.

Discussion of Findings**Network Virtualization and Work-Life Balance**

The test of hypotheses seven, eight and nine revealed that network virtualization has a positive interaction with work-life balance of employees of broadcast stations in south-south region of Nigeria. The development of network virtualization brings about work-life balance of employees of broadcast stations in south-south region of Nigeria in terms of socio-personal functions satisfaction, official time maximization and ample rest and leisure. This is in line with the assertion

of Wang et al. (2016), that Network virtualization through the use private website, desktop virtualization and mobile news application usage enhances the level of employees work-life balance. Network virtualization is a useful technology to achieve better utilization of infrastructures in terms of reusing a single physical or logical resource for multiple other network instances, or to aggregate multiples of these resources to obtain more functionality. Network virtualization can combine multiple physical networks to one virtual, software-based network, or it can divide one physical network into separate, independent virtual networks. This helps employees to work from any geographical location and equally have time for themselves.

Summary of Findings

Based on the analyses and interpretation of data, the following findings were made:

1. Network virtualization has a moderate significant positive influence on socio-personal functions satisfaction of employees of broadcast stations in South-South, Nigeria.
2. Network virtualization has a very high significant positive influence on official time maximization of employees of broadcast stations in South-South, Nigeria.

CONCLUSION

Based on the results and findings, the study concluded that network virtualization enhances work-life balance of employees of broadcast stations in South-South region of Nigeria. The adoption of virtual networks such as private website usage, desktop virtualization and mobile news application usage) triggers work-life balance such as socio-personal functions satisfaction (finding time for career advancement, honouring social invitation and spending time with family), official time maximization (completion of time while in the office, absence of time stress, meeting up deadlines & having free time to go for lunch) in broadcast stations in South-South, Nigeria. The more broadcast stations adopt these virtual networks, the more their employees' work-life balance becomes improved. The study also concluded that broadcast stations in South-South and Nigeria at large who fail to adopt virtual networks will find it very difficult in maintaining work-life balance of their employees and this will have very negative force on their overall performance as business establishments.

RECOMMENDATIONS

1. Management should make provision for free data subscription for employees at all level in the organization to enable work outside office setting.
2. Management should provide mifis and routers across offices in the broadcasting stations to enhance access to internet resources such as e-mail, internet browsers, and social networking platforms. This will enhance staff's ability to create, send and access data and information on time.

REFERENCES

- Citrix (2019). What is desktop as a service (DaaS)? <https://www.citrix.com/glossary/what-is-desktop-as-a-service-daas.html>
- Council of Civil Service Union/Cabinet Office (2017). *Work, stress, and health: The Whitehall II study*. Public and Commercial Services Union.
- Edward, T. P. (2018). *The digital workplace: Think, share, and do*. **Error! Hyperlink reference not valid.**
- Felstead, S. Gallie, A. & Green, T. (2018). The impact of work-life programs on firm productivity. *Strategic Management Journal*, 21(12), 1225-1235.

- Fidelis A. A. (2017). Impact of information communication technology on corporate performance: A case study of cement manufacturing firms in Nigeria. *Global Advanced Research Journal of Management and Business Studies*, 1(8), 259-263.
- Gartner, D. (2017) *IT glossary: Digitalization*. <https://www.gartner.com/itglossary/digitalization>
- Gregory, K. (2019). *Definition of network virtualization*. **Error! Hyperlink reference not valid.**
- Jailaxmi, G. &Gautam, A. (2017). Work life balance of bank employees as related to age, gender and marital status. *International Journal of Management, and Business Studies*, 7(1), 44-46.
- Kefah, V. (2016). The impact of flexible work arrangements on workers' productivity in information and communication technology sector. *IEEE Reliability Society 2007 Annual Technology Report*, 4(1), 1-7.
- Manfredi, P. & Holliday, T. (2016). *Information and communication technology in modern workplace: A functional and systematic approach*. Tophill Press Company.
- Norris, J. & Moon, E. (2015). Information and school administrators' effectiveness in Gombe. *International Journal of Education*, 7(9), 113-119.
- Orogbu, E. Y., Onyeizugbe, K., & Chukwuemeke, W. I. (2015). Work life balance and employee performance in selected commercial banks in Lagos State. *Journal of Information & Management*, 49(3), 131-149.
- Pattu, M., Venkata, S. & Ravichandran, K. (2016). The importance of work-life-balance. *Journal of Business and Management*, 14(3), 31-35.
- Ralph, E., Evangelia, T. & Friedhelm, N. (2016). Flexible working times: Effects on employees' exhaustion, work-nonwork conflict and job performance. *Research Journal of Finance and Accounting*, 7(3), 52-64.
- TechAdvisory (2014). *Why choose virtualization?* <https://www.techadvisory.org/2014/05/why-choose-virtualization/>
- Upadhaya, F., Munir, B. & Blount, V. (2014). Modes of theorizing in strategic human resource management. *Academy of Management Journal*, 3(9), 830-835.
- Walker, A., Spear, I., Gould, B., & Lee, K. (2016). Evaluation of the implementation use and effects of computerized management information systems in English secondary schools. *British Journal of Educational Technology*, 34(3), 357-366.
- Wang, A., Dutta, R., Iyer, M. &Rouskas, G. N. (2016). Network virtualization: Technologies, perspectives, and frontiers. *Journal of Lightwave Technology*, 31(4), 523-537.