DIGITAL ASSETS STORAGE AND ORGANIZATIONAL SUSTAINABILITY OF RADIO STATIONS IN RIVERS STATE, NIGERIA

Prof. (Mrs.) A.E. **BESTMAN**, **ALALIBO**, Obelem Otonye, *PhD,* and **NWEKE**, Yvonne Boulere

Department of Office and Information Management, Faculty of Administration & Management, Rivers State University, Nkpolu- Oroworukwo, PMB, 5080, Port Harcourt, Nigeria.
Email:obelem.alalibo@ust.edu.ng Phone no: +2348056211223

ABSTRACT

This paper surveyed Digital Assets Storage and Organizational Sustainability of Radio Stations in Rivers State, Nigeria. It revolved around the proper understanding of digital asset storage, its significance on the sustainability of Radio Station in Rivers State, Nigeria. As an empirical study, Cross-sectional Survey was appropriate for effective data collection and analysis. The population of the study comprises of nineteen (19) Radio stations operating in Rivers State, Nigeria. The sample size was determined by randomly distributing five (5) questionnaires to all to the nineteen (19) Radio Stations which sum up to a total number of ninety-five (95) selected sample size. Based on the sample size, ninety-five (95) structure questionnaires were design on a 5-point Likert scale and distributed to the various Radio stations out of which eighty (80) copies that were properly completed by the respondents was used for data analysis. Both the descriptive and bivariate analysis were employed such that the descriptive output was all above the criterion mean of 3.00 for a 5-point Likert scale and also the correlation coefficient showed that, there existed a significant strong positive relationship between Digital Assets Storage and the measures of Organizational Sustainability of Radio Stations in Rivers State, Nigeria. It was therefore, concluded that Digital Assets Storage is an effective method for sustainable Radio Stations in Rivers State, Nigeria. Therefore, it is imperative that, Radio Stations in Rivers desiring to achieve sustainability in terms of brand consistency and right assets management should implement digital assets storage in their various radio stations in Rivers State, Nigeria.

KEYWORDS: Digital Assets, Storage systems, Sustainability, Brand consistency and Rights management

INRODUCTION

In the traditional economic systems, assets are considered to tangible, monetary terms and other physical component. Then an asset talks much about the individual capability in terms of knowledge, financial worth for the generation, preservation and advancement of wealth as the basic societal growth. This was true as to the access to physical asset for investment opportunities. Today assets are not only considered to be tangible but also in the digital form stored in a computer or databases or data warehouses. In this modern times, economic growth has evolved rapidly with scientific discoveries, industrial revolutions, technological advancements and most recently, the venture into artificial intelligence. Expectedly therefore, economic empowerment has been upheld on empirical adjustments to asset holdings and investment opportunities that are prevalent within a given period of time in which particular value is vested in such asset holding or investment.

The introduction of innovative wealth creation and investment platforms providing avenue for digital assets, ecommerce and similar businesses and investment opportunities that were hitherto unavailable became a core impute of technology to economy. This does not just come with benefits but also challenges that requires proper management so as to achieve maximum benefit from the

asset in it digital form. Considering the responsibilities facing the internet users and legal consequences (radio stations) of these novel investment platforms are issues for much concern, as traditional legal frameworks used in regulating investment and security market may not be adequate for the protection of investors on digital platforms (Muradyan, 2023).

Digital asset management (DAM) systems are software system designed to centrally store and manage digital content. It is designed to streamline the process of asset organization, storage, retrieval, and utilization that will eventually lead to improved efficiency in the organization (Delaney, & de Jong, 2015). With proper metadata, tagging, and categorization, assets can be easily searched, retrieved, and shared, reducing the time spent searching for assets and improving productivity (França, Barros, Salvador, Francisco, Moreira. & Piekarski, 2021). It's easy to use and quick to setup, a centralized digital asset management systems solution provides internal and external stakeholders-controlled access to all their digital assets (resources) including photographs, images, creative files, video, audio, presentation surfaces, document and much more (Baines, Lightfoot, Benedettini, & Kay, 2008).

Most importantly, it is a system that provides a way to increase campaign productivity and ensure brand consistency (Baines, Lightfoot, Benedettini, & Kay, 2008). It encompasses the organization, storage, retrieval, and utilization of its digital assets for various purposes. In recent years, Asset Information Modeling and Management (AIMM) has gained prominence in the Information and communication industries like the radio stations as a framework for managing assets throughout their lifecycle (Blanco-Cadena, Moretti, Poli & Re-Cecconi, 2019). Today it has emerged as a critical field of endeavour which include digital media files such as images, videos, audio, documents, and other multimedia content (Schleicher & Bach, 2016). It is effective and efficient in the management of digital content for various purposes, including marketing, branding, content creation, distribution, and archiving (Jones & Sharp, 2007).). Digital asset management has gained increasing importance in today's digital era, where the volume and complexity of digital assets are growing exponentially, and organizations are faced with the challenge of managing these assets in a structured and efficient manner (Boton, Halin, Kubicki, & Forgues, 2015). It encompasses a set of concepts and principles aimed at effectively managing digital assets throughout their lifecycle (Re-Cecconi, Dejaco, Moretti, Mannino & Blanco, 2020). Key concepts and principles of digital asset management (DAM) include asset organization, storage, retrieval, utilization, preservation, and analytics. Proper organization of digital assets through the creation of metadata, tags, and categories enables efficient asset discovery and utilization, reduces duplication of assets, and ensures consistency and accuracy of asset information (Goldstein, 2016). DAM requires the storage of digital assets in a secure and scalable manner, considering factors such as storage capacity, backup and recovery strategies, and access control mechanisms to ensure data integrity, confidentiality, and availability. Efficient retrieval of digital assets through search functionality, filtering, and browsing options, along with advanced features such as artificial intelligence base asset recognition and recommendation, enhances productivity and ensures the right assets are used for the right purposes (Re Cecconi, et al., 2020). Effective utilization of digital assets involves features such as asset sharing, collaboration, versioning, and rights management to ensure appropriate use and compliance with copyrights, licenses, and legal requirements. Long-term preservation of digital assets through strategies such as format migration, metadata preservation, and adherence to digital preservation standards safeguards assets from obsolescence and data loss.

Statement of the problems

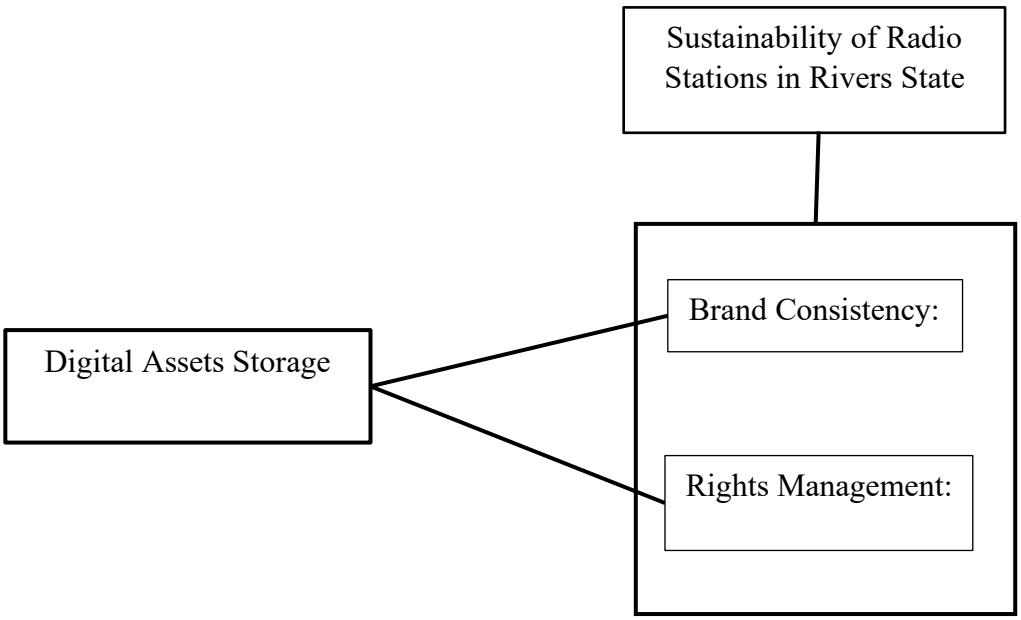
It is having been observed that the radio stations in Rivers State have not been performing the minimum global performance as a result of poor organization, storage, retrieving and utilization. They have not maximized the modern infrastructure in the modern radio stations today. Information technology infrastructure is a major support for digital assets management. Inspite, of the improve technology available today for global inclusion, most of these radio stations in Rivers State are still performing below global practices, there is still poor organization of digital assets, weaknesses of storage devices despite being necessary for digital asset management in contemporary computing, storage devices are not without drawbacks. To create efficient digital assets management methods, both individuals and organizations must have a thorough grasp of these weaknesses. The digital assets are physically susceptibility storage devices, vulnerable to physical damage, especially conventional Hard Disc Drives (HDDs). Shock, vibration, or overheating can cause the mechanical parts of HDDs, including the spinning discs and read/write heads, to malfunction. Solid State Drives (SSDs), while more resilient to physical shocks, can still suffer from wear and tear over time, particularly with frequent write cycles, leading to eventual failure (Liu, Wu & Wang, 2019)). Digital assets risk is still a serious concern when using storage devices.

Data loss might be irreversible due to corruption, hardware failure, or inadvertent deletion. Furthermore, digital assets are still vulnerable to catastrophic failures like power surges and natural disasters even with redundancy mechanisms like Redundant Array of Independent Disks (RAID) setups. Most of the radio stations today are still using the traditional storage devices can cannot sustained the current digital with high volume, velocity and varieties (3Vs). These devices have limitations. There may be performance issues with storage devices that affect the overall effectiveness of the system. Security is a major problem, particularly in light of the rise in cyberattacks (Kumar, Singh & Kumar, 2020). The inability to properly manage digital assets will results to virus attacks, theft, and illegal access. Additionally, there is a direct danger to digital assets security when storage devices like external hard drives or USB drives are physically stolen. Security of digital asset is a major concerned in radio stations (Hurst, 2010). Companies must take the utmost care that employees have access only to the files they need, for their specific tasks, because of the risk of breaches of confidentiality (Hurst, 2010). Therefore, the companies must confirm the entry settings of each employee, as and when necessary, especially for new employees (Hurst, 2010). Also, copyright images for video and/or music (Fisher, 2006). Digital assets are legal documents that needs to be protected from unauthorize users, this is also referred to as Digital rights management (DRM) as it is likely that simple, inadvertent mistakes by employees could end up costing the company a significant amount (Fisher, 2006). These are some of the problems that necessitated this research topic “digital assets management and sustainability of radio stations in Port Harcourt, Rivers State, Nigeria.

Conceptual Framework

This conceptual frame work was based on the reviewed and empirical literature from other researchers on the concept of digital assets management and sustainability of Radio Station in Rivers State, Nigeria (Garratt, 2021). DAM involves the organization, storage, retrieval, and utilization of these digital assets, enabling efficient and effective management of digital content for various purposes, including marketing, branding, content creation, distribution, and archiving (Krishna & Singh, 2023). Hillmann and Guenther (2021) asserted that given the current focus in

business, there is need to understand competitor's strengths in the market and then position one's own offerings to take advantage of weaknesses and avoid head on clashes against others' strengths. Van Ruler (2018) noted that strategy emerges over time as intentions collide with and accommodate a changing reality.



Source: (Re Cecconi, Dejaco, Moretti, Mannino & Blanco, 2020;
Gibbes, Hopkins, Diaz, & Jimenez-Osornio, 2020)

Purpose of the Study

The purpose of this study was to Ascertain how digital asset storage enhanced the organizational sustainabilty of Radio Stations in Rivers State, Nigeria.

Research Question

The research question tentatively asked how digital asset storage will enhance the organizational sustainability of Radio Stations in Rivers State Nigeria?

Research Hypotheses

The following null hypotheses was used to find solution to the research questions are follows;

H_{01}: There is no significant relationship between digital assets storage and brand consistency of Radio Stations in Rivers State, Nigeria.

H_{02}: There is no significant relationship between digital assets storage and rights management of Radio Stations in Rivers State, Nigeria.

.

THEORETICAL FOUNDATION

The theoretical foundation of this study was anchored on Social Presence Theory and the Resource Dependency Theory

Social Presence Theory

This theory was propounded by Short, Williams, & Christie, 1976. Since then, it has been one of the most influential and cited theories in communication and sociology, Social Presence Theory (SPT) explained the authenticity of communication. The central proposition of SPT is the degree of a person being regarded as a real human and the perception of contact with others in the process of communication with media (Short, Williams, & Christie, 1976). Media usually rely on various linguistic and non-verbal cues to transmit information, and media with more cues often indicate a stronger social presence. With the development of Information Communication Technology (ICT), people are more willing to pursue an immersive feeling in online learning, online gaming, and e-commerce. The appropriate understanding and application of Social Presence Theory could enhance people's perception of others in various online contexts by shortening the social distance between them. This theory emphasized on the element of digital asset management such as text, graphics and videos etc.

Resources Dependency Theory

This theory was founded by Selznick (1949). Resource dependence theory Resources Dependency Theory (RDT) focuses on the interaction between organizations and environments, and the survival of organizations needs to access necessary resources from the external environment (Pfeffer & Salancik, 2003). RDT has been widely applied across various fields, such as business, public administration, organizational behavior, and IS. The existing review has revealed the conceptual development, empirical research, and application of RDT from a management perspective (Hillman, Withers, & Collins, 2009). More importantly, Internet-based ICT provides effective tools and increasing cooperation opportunities for organizations to share resources and weakens the dependence of organizations on existing partners or resources. Hence, the application of Resources Dependency Theory in Information Management and Information System field has been widely scrutinized by both academics and enterprises.

CONCEPTUAL REVIEW

Digital Asset Storage system

Digital asset storage has history closely linked to that of computing, research data presents a handful of new and unique challenges, especially when it comes to persistence and privacy. Usually most technical details will be handled by specialized professionals, but gathering a basic understanding of the inner workings, advantages and limitations of the various options can help devise data management plans customized to the needs of each research project, community or subject area. The first aspects of storage that need to be considered are the actual medium and employed technology; currently, the most prevalent options are tools, magnetic (hard disk drives (HDD), magnetic tapes). Digital assets are stored using the magnetization patterns of a special surface. There are other options that need to be considered when considering digital data storage, such as convenience, costs and reliability. For example, while tape drives tend to be cheaper than hard disks (a 2016 analysis determined that 1 gigabyte of tape storage costed $0.02 opposed to $0.033 for HDD (Brandl & Dieterich, 2023), they also exhibit slow data retrieval rates and require specialized hardware. Reliability is one of the most important aspects when considering scientific

digital asset storage, as loss of information can lead to delays or even experiment failures. While in the early days of solid-state drives these encountered higher failure rates than HDD counterparts. Reliability can also be determined by brand and models; Klein (2017) determined an average 1.94% annual failure rate, but with a maximum at over 14% for a certain model. As no technology can offer absolute guarantees regarding reliability, other protection mechanisms, such as backups, need to be considered, these being discussed in the next section.

Storage facilities managed at the institutional level, such as storage area network (SAN) systems, move the burden of managing data storage from the individual researcher to specialized personnel, providing higher reliability and enhanced possibilities for sharing data among peers. Finally, data can be stored off-site in specialized facilities; this model became prominent with the advent of cloud systems, such as Amazon Web Services, Microsoft Azure or Google Cloud Platform, and has benefits in terms of reliability, scalability and accessibility (Liu, Wu & Wang, 2019). This might be preferred when the individual researcher or institution does not possess the required resources for managing a storage solution, when large quantities of data need to be stored, or when data needs to be shared across a large network of collaborators. At the same time, the privacy and legal implications need to be considered, given that a third party usually handles the storage (Mokhtarian & Rezaei, 2018). It is worth noting that cloud deployments can also be managed by governmental bodies or similar official entities, this alleviating some of the legal issues (for example, the Australian National Research Data Storage Services provides such facilities to researchers in Australia, including storage of sensitive data, such as clinical trial sets (Australian Research Data Commons 2018). From a technical point of view, the choice of a storage solution needs to account for the following:

As noted previously, no storage system can be guaranteed to function without faults and thus it is important that data is copied and stored on different systems simultaneously. The higher the number of copies and the broader their distribution, the higher the guarantee for their persistence, this is simply having data stored on a medium does not provide guarantees that, over time, it would not become inaccessible. Both tape drives and hard disks can become demagnetized, hence corrupting the stored data (Gupta, Singh & Sharma, 2021). This phenomenon is frequently described as bit rot. Hence, data needs to be periodically tested and, if problems arise, fixed. A common method for detecting issues employs so-called checksums, fingerprints of data files which change when even 1byte switches value. If a file is detected to have changed, it is usually replaced with a redundant copy. Transformation: as technology evolves, so do the methods for storing data, this also leading to deprecation; floppy disks are rarely used nowadays, despite being ubiquitous just a few years back. Storage and archival systems need to account for this and migrate data to current technological requirements, while ensuring that its contents are not semantically modified (Jain & Gupta, 2023). Of course, the emphasis on each of these requirements depends on the characteristics of the underlying data; for example, for raw data the transformation aspect might be less relevant, as that is not the final considered form of the data, but redundancy could play a more important role due to its sole existence as a research artefact (Chen, Zhang & Wang, 2022). he files formats and even the structure and organization of research data will most often be enforced by various laboratory instruments and software used for producing it. Nevertheless, it might be beneficial to apply transformations to the raw outputs in order to ensure their persistence Another point to consider regards the standardization of formats; file formats which are backed up by an established standard provide higher guarantees in terms of accessibility and preservation

over time, as clear rules on how data is encapsulated and structured are defined (Tao, Yan & Wang, 2021).

ORGANIZATIONAL SUSTAINABILITY OF RADIO STATIONS IN RIVERS STATE, NIGERIA

Brand consistency

Brand consistency is important because it leads to brand recognition. When customers recognize your brand (and have positive associations with it), they're more likely to make purchases and commit to your company for the long term. Also, when you create brand consistency, you reinforce the qualities your customers can cite when recommending your brand to their friends and social media as for example, McDonald's family-friendly fast-food restaurants and inexpensive eats are easily recognizable by their red and yellow color scheme and famous golden arches. If they suddenly replaced their kid-friendly colors with a modern, minimalist palette of grays and blacks, increased the prices of their menu items, and put Ronald McDonald in a tailored pinstripe suit, people would no longer "know" the McDonald's brand. As a result, they might hesitate to recommend McDonald's to friends in need of a quick bite to eat. Keeping your brand consistent helps you keep your customers. When deciding on advertising content, brands need to determine the extent to which they want the content to be similar to that of previous advertising *(*consistency) and how they want to position themselves relative to their competitors' advertising *(*commonality*)*. Previous research suggests that such decisions matter when it comes to the advertising message (i.e., *what* advertisers want to convey to consumers) (Pauwels et al., 2022).

Our research provides insights on these issues by analyzing the dynamic impact on brands' sales of their advertising content's consistency and commonality. We acknowledge that the impact may vary depending on the time horizon (short-term immediate effects vs. long-term cumulative effects) and brand profile (small vs. large brands). Specifically, we address the following questions. Previous studies argue that advertising content is an important driver of advertising effectiveness (Bruce et al., 2020, Du et al., 2019, Guitart and Stremersch, 2020), and thus has a direct impact on actual consumer behavior, including sales (Liaukonyte et al., 2015). The two most commonly studied content dimensions so far are informativeness and emotionality (Chandy et al., 2001, Guitart and Stremersch, 2020, MacInnis et al., 2002, Tellis et al., 2019). Managers employ informative content to persuade consumers by appealing to reason (Tellis, 2004).

Digital Asset right management

Digital right is an extended branch of sets of rights set out in the universal declaration of human rights by the United Nations as applied to the internet and online world. The major purpose of this set of rights is to guarantee access to the internet and assure the common asset belonging to the whole of humanity. The lack of international consensus has led each country to establish its digit rights centers (Subramanya and Yi, 2006). The advent of digital media and analog-to-digital conversion technologies has extensively increased the concerns of copyright-owning organizations and individuals, specifically within the film and music industry. With each copy generation, the analog media will lose its quality inevitably few cases even during normal usage, digital media files are replicated an infinite number of times with no deterioration of quality. The earliest implication of Digital rights management had devised in 1983 by Ryuichi Morita, who is a Japanese engineer.

The usage of any type of content (text, image, audio, video, etc.) requires permission of owning a body, particularly for commercial purposes. Similarly, distributing pictures of assets or property may violate the rights of that person, specifically if the material is copyrighted. To avoid such troublesome situations, the phenomena of digital asset management have been introduced and DA managers are responsible for securing the assets and monitoring their usage. The creation of Copyright laws is purely intended to maintain a balance between authors, publishers, distributors, the public, and general users. There is stalwart coherence between digital rights and freedom of expression, fundamental rights, and privacy. Digital rights are the set of regulations that will allow people to use, access, create and publish digital media along with accessing and using computers, communication networks, and devices (Dingledy & Matamoros, 2016).

Identified Gap in Literature

The efficiency and stability of radio station systems are hotly debated topics, intrinsically linked to the evolving nature of digital asset management in the digital era. Innovations like tokenization and programmability of digital assets have spurred discussions about radio stations in the information age. Efforts to understand and shape this trajectory are underway, aiming to mitigate the spillover effects from emerging digital asset infrastructure paradigms, like digital asset platforms. While there are numerous theoretical and practical approaches to address current digital asset management system issues, they often fall short in addressing the inherent heterogeneity of these systems such as digital asset organization and sustainability of radio station especially in Rivers State, Nigeria. No adequate accessible empirical research has been done in this very important area.

Empirical Review

According to Nwenenda and Bestman (2023). Application integration strategy positively enhances administrative efficiency of radio stations in Rivers State, Nigeria. Also, data integration strategy positively enhances administrative efficiency of radio stations in Rivers State. Furthermore, cloud integration strategy positively enhances administrative efficiency of radio stations in Rivers State. Similarly, security integration strategy positively enhances administrative efficiency of radio stations in Rivers State. Finally, leadership significantly moderates the relationship between digital integration strategy and administrative efficiency of radio stations in Rivers State.

Ideh and Eserada (2023) stated that it is important for the librarians to establish their relevance and proficiency the more in the use of ICTs by having a positive perception of the use of ICTs for teaching. Even though the task of ICT integration into teaching poses big challenges to librarians, institutional solutions such as mutually supportive policies, ICT training, and funding have to be offered to address the challenges.

Xing (2021) concluded that selecting a DAM system, managing metadata and understanding user needs are the most necessary elements for effective DAM practice. The above three elements indeed are the most important elements for effective DAM practices. But in the process of DAM practice, every element interacts with the others. People still have to look at the DAM from a comprehensive perspective of a DAM ecosystem.

According to Smuts and Maramba, (2020), the implementation of knowledge management at an organisational level is a key enabler for managing the knowledge assets in the organisation during the implementation of an IS outsourcing arrangement. In order to assist organisations embarking

on IS outsourcing to pro-actively manage their knowledge assets during the IS outsourcing project, the aim of this study was to develop a KAMI framework.

METHODOLOGY

The research design adopted in this study is the Cross-sectional design which involves the collection of data from the respondents or the population members. This study is thus structured based on the adoption of the quantitative methodology and thus designed to capture data using the relevant quantitative data generating tools and instruments. It entails data gathering process. Descriptive studies are also called observatory research because it establishes only association between variables. Therefore, this study leveraged on the use of the quasi-experimental research design which is deemed suitable because it entails the use of structured questionnaire to be administered to respondents. This study adopted a cross sectional design study. Cross-sectional studies are research aimed at determining the frequency or level of a particular attribute in a defined population at a particular point in time (Lotta, 2012). Cross sectional design refers to one off data collection from the field. This study is a correlational study. This is because will examine the relationship between digital asset management systems and sustainability of Radio Stations in Rivers State, Nigeria. The population of this study comprised of nineteen (19) radio stations in Port Harcourt, Rivers State, Nigeria. Ahiauzu and Asawo (2016) opined that the population of a study is the entire individual persons, group of persons, organizations or things of interest that the researcher wishes to investigate. A study population may be the target population; that is, it identifies all the units of interest despite size, duration, spatial geographical location or national contexts, or accessible population which considers the issues such as proximity, timeframe, location and size of the population.

The sample size of a research is one of the key issues a researcher must resolve in order to carry out a study (Ahiazu & Asawo, 2016). A sample size of a study refers to the actual number or part of the study population obtained from the population for the study. A sample size is a subset of the members of the population been studied (Okwandu, 2004). The sample size of this study was randomly selected from the population members which includes station manager, program director, operational manager and sales manager. They are tabulated in tale 3.2

EMPIRICAL REVIEW

Anthony & Akpan (2024) in their work showed that storage devices are not merely passive components; they are active enablers of the ICT ecosystem, driving efficiency, security, and innovation. As we move deeper into the digital age, the role of storage devices will only grow more critical, shaping the future of technology and influencing how we interact with information in profound ways. Their ability to adapt and evolve alongside emerging technologies will determine the effectiveness and sustainability of ICT as a whole, underscoring the need for continued investment and research in this essential domain. In the rapidly evolving landscape of Information and Communication Technology (ICT), storage devices stand out as integral components that underpin the entire digital infrastructure as their roles extend far beyond mere data retention as they facilitate efficient data management, enhance accessibility, and ensure data integrity.

According to Ekeng, and Inyang (2024), the extent of competencies (utilization) in ICT significantly affects undergraduate of Library students in University of Calabar. The study showed that the reasons for using ICT resources significantly affect undergraduate of library students in

University of Calabar, the availability of Information Communication Technology infrastructures significantly affect undergraduate of Library students in University of Calabar.

Ideh, P. N. and Eserada, R. E. (2023) stated that it is important for the librarians to establish their relevance and proficiency the more in the use of ICTs by having a positive perception of the use of ICTs for teaching. Even though the task of ICT integration into teaching poses big challenges to librarians, institutional solutions such as mutually supportive policies, ICT training, and funding have to be offered to address the challenges.

Xing (2021) concluded that selecting a DAM system, managing metadata and understanding user needs are the most necessary elements for effective DAM practice. The above three elements indeed are the most important elements for effective DAM practices. But in the process of DAM practice, every element interacts with the others. People still have to look at the DAM from a comprehensive perspective of a DAM ecosystem.

According to Smuts and Maramba, (2020), the implementation of knowledge management at an organisational level is a key enabler for managing the knowledge assets in the organisation during the implementation of an IS outsourcing arrangement. In order to assist organisations embarking on IS outsourcing to pro-actively manage their knowledge assets during the IS outsourcing project, the aim of this study was to develop a KAMI framework.

METHODOLOGY

The research design adopted in this study is the Cross-sectional design which involves the collection of data from the respondents or the population members. This study is thus structured based on the adoption of the quantitative methodology and thus designed to capture data using the relevant quantitative data generating tools and instruments. It entails data gathering process. Descriptive studies are also called observatory research because it establishes only association between variables. Therefore, this study leveraged on the use of the quasi-experimental research design which is deemed suitable because it entails the use of structured questionnaire to be administered to respondents. This study adopted a cross sectional design study. Cross-sectional studies are research aimed at determining the frequency or level of a particular attribute in a defined population at a particular point in time (Lotta, 2012). Cross sectional design refers to one off data collection from the field. This study is a correlational study. This is because will examine the relationship between digital asset management systems and sustainability of Radio Stations in Rivers State, Nigeria. The population of this study comprised of nineteen (19) radio stations in Port Harcourt, Rivers State, Nigeria. Ahiauzu and Asawo (2016) opined that the population of a study is the entire individual persons, group of persons, organizations or things of interest that the researcher wishes to investigate. A study population may be the target population; that is, it identifies all the units of interest despite size, duration, spatial geographical location or national contexts, or accessible population which considers the issues such as proximity, timeframe, location and size of the population.

Descriptive Statistics

The section highlighted the respondents' rate of respond on the dimensions and the measures based on the 5-point Likert's scale as indicated on the table below.

Table 1: Descriptive analysis on digital storage

	N	Sum	Mean	Std. Deviation
Digital storage service provides such facilities to researchers in radio stations	80	290.0	3.63	1.1515
Effective digital storage upturn guaranteed the system to function without faults, it helps the user to copy the data and store on another system	80	335.0	4.19	1.3130
Digital storage facilitates the interaction with other digital object or programs in Radio stations	80	304.0	3.80	1.3632
The stations used a standard format that is compatible with other organization	80	284.0	3.56	1.1896
The implementation of digital storage enhance inter station collaborations.	80	330.0	4.13	1.1733
Valid N (listwise)	80			

Source: Research survey, 2025.

Table 1 showed the extent to which digital storage was effective in the radio stations in Rivers State, Nigeria. From the table, question one showed that Digital storage service provides such facilities to researchers in radio stations with of mean of 3.33 and standard deviation of 1.1515, question two supported that Effective digital storage upturn guaranteed the system to function without faults it helps the user to copy the data and store on another system with calculated mean of 4.19 and standard deviation of 1.3130, question three was also for the fact that digital storage facilitate the interaction with other digital object or programs in Radio stations with a mean value of 3.80 and standard deviation of 1.3632, question four also indicated that the stations used a standard format that is compatible with other organization with a mean of 3.56 and standard deviation of 1.1896 and lastly the respondents on question four agreed that the implementation of digital storage enhance inter station collaborations with the valid mean of 4.13 and standard deviation of 1.1733. The high value of the calculated mean indicated that digital storage in radio station is taken seriously.

Table 2: Descriptive analysis on Brand consistency

	N	Sum	Mean	Std. Deviation
Digital asset management systems enhanced good branding gives your organization personality, making your customers want to interact with your business	80	331.0	4.14	1.4119
It distinguishes you from others in your industry and provides an emotional reason to choose you	80	341.0	4.26	1.0878
Your brand can become a leader in the industry by increasing authority	80	330.0	4.13	1.3536
It helps to you reinforce the qualities your customers can cite when recommending your brand to their friends and social media	80	251.0	3.14	1.2999
Consistency and commonality matter with regard to the advertising content	80	343.0	4.29	1.1821
Valid N (listwise)	80			

Source: Research survey, 2025.

Table 2 showed the extent to which brand consistency is achieved in the organization. Question one added that digital asset management systems enhanced good branding which includes, organization personality, customers interaction and etc. with a mean value of 4.14 and standard deviation of 1.4119, question two showed that It distinguishes them from others industry and provides an emotional reason to choose them with a mean of 4.26 and standard deviation of 1.0878, question four showed that the organizational brand leads in industries through increasing authority with a mean value of 4.13 and standard deviation of 1.3536 and also question five showed that consistency and commonality matter with regard to the advertising content with a mean of 4.29 and standard deviation of 1.1821. All the values were above the criterion values of 3.00 for a 5-point Likert's scale, therefore, the respondent's rate is classified as high.

Table 3: Descriptive analysis on Right management

	N	Sum	Mean	Std. Deviation
Permission is required for the use particular digital asset for commercial purposes.	80	350.0	4.38	1.2363
The creation of Copyright laws is purely intended to maintain a balance between authors, publishers, distributors, the public, and general users	80	275.0	3.44	1.1996
publishers are able to keep track of their rights and permissions associated with digital assets themselves	80	332.0	4.15	1.2023
Digital right management opens up a proactive approach to protecting digital content by uplifting barriers to steal it.	80	350.0	4.375	1.2363
Organization operates through the routes of encryption or computer codes embedded in the digital content to limit the access or usage	80	267.0	3.338	1.3402
Valid N (listwise)	80			

Source: Research survey, 2025.

Table 3 showed the extent to which right management is achieved in the various organizations under survey. From the table question one supported that there is adequate permission for the use particular digital asset for commercial purposes with a mean of 4.38 and standard deviation of 1.2363, question two showed that the creation of Copyright laws is purely intended to maintain a balance between authors, publishers, distributors, the public, and general users with appropriate mean of 3.44 and standard deviation of 1.1996, for question three, the respondents added that publishers are able to keep track of their rights and permissions associated with digital assets themselves with a mean of 4.15 and standard deviation of 1.2023, question four showed that digital right management open up a proactive approach to protecting digital content by uplifting barriers to steal it with a mean of 4.375 and standard deviation of 1.2363 and lastly question five indicated that organization operate through the routes of encryption or computer codes embedded in the digital content to limit the access or usage with a mean of 3.34 and standard deviation of 1.3402. The various mean was all above the criterion mean of 3.00 for a 5-point Likert scale and also the standard deviation indicated that the answered were related as they are not far from the mean.

Bivariate analysis

Table 4: Relationship between Storage system and Brand consistency

			Storage System	Brand consistency
Spearman's rho	Storage System	Correlation Coefficient	1.000	.891**
		Sig. (2-tailed)	.	.000
		N	80	80
	Brand consistency	Correlation Coefficient	.891**	1.000
		Sig. (2-tailed)	.000	.
		N	80	80

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

Source: Research survey, 2025.

Table 4 showed the relationship between storage system and brand consistency of Radio Stations in Rivers State, Nigeria. The correlation coefficient shows that there is a strong positive relationship between storage system and brand consistency. The correlation coefficient of 0.891 confirms the magnitude and strength of this relationship which is statistically significant at (ρ = 0.01<0.05). Based on this value, the null hypothesis **H_{O3}** was rejected and the research (Alternate) hypothesis **H_{A3}** accepted. Thus, there is a strong positive relationship between storage system and brand consistency of Radio stations in Rivers State, Nigeria.

Table 5: Relationship between Storage system and Right management of Radio stations in Rivers State, Nigeria.

			Storage System	Rights Management
Spearman's rho	Storage System	Correlation Coefficient	1.000	.528**
		Sig. (2-tailed)	.	.000
		N	80	80
	Rights Management	Correlation Coefficient	.528**	1.000
		Sig. (2-tailed)	.000	.
		N	80	80

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

Source: Research survey, 2025.

Table 5 showed the relationship between storage system and right access management of Radio Stations in Rivers State, Nigeria. The correlation coefficient shows that there is a strong positive relationship between storage system and right access management. The correlation coefficient of 0.528 confirms the magnitude and strength of this relationship which is statistically significant at (ρ = 0.01<0.05). Based on this value, the null hypothesis **H_{O4}** was rejected and the research (Alternate) hypothesis **H_{A4}** accepted. Thus, there is an average positive relationship between storage system and right access management of Radio stations in Rivers State, Nigeria.

DISCUSSION OF MAJOR FINDINGS

The output of the univariate analysis showed that various mean was all above the criterion mean of 3.00 for a 5-point Likert scale and also the standard deviation indicated that the answered were related as they are not far from the mean. Also, the bivariate analysis indicated a positive relationship between the independent and the dependent variables. The correlation coefficient shows that there is a strong positive relationship between storage system and brand consistency. The correlation coefficient of 0.891 confirms the magnitude and strength of this relationship which is statistically significant at ($\rho = 0.01<0.05$). The correlation coefficient shows that there is a strong positive relationship between storage system and right access management. The correlation coefficient of 0.528 confirms the magnitude and strength of this relationship which is statistically significant at ($\rho = 0.01<0.05$). Digital asset storage has history closely linked to that of computing, research data presents a handful of new and unique challenges, especially when it comes to persistence and privacy. Usually most technical details will be handled by specialized professionals, but gathering a basic understanding of the inner workings, advantages and limitations of the various options can help devise data management plans customized to the needs of each research project, community or subject area. The first aspects of storage that need to be considered are the actual medium and employed technology; currently, the most prevalent options are tools, magnetic (hard disk drives (HDD), magnetic tapes).

SUMMARY

This research has shown that digital asset storage management systems is an effective tool for the sustainability of Radio Stations in Port Harcourt, Rivers State, It highlight the concept of digital assets storge management systems and sustainability of radio stations in Port Harcourt, Rivers State, Nigeria. Digital assets refer to non-monetary assets that exist in the form of electronic data and are used in daily activities for sale or in the production process, such as images, audio files, presentations, videos, and any other branded content or media that generally have usage rights or licensing requirements Therefore, it is required that the digital asset management platform can support various media file types. In terms of the process of DAM, it is a method that can be systematically used to efficiently store, organize, manage, retrieve and distribute an organization's digital assets, and can also be used in business processes and information management technologies. Organizing digital asset is at the heart of information science and is important in many other areas as well (Bezerra & Almeida, 2020).

CONCLUSION

The study has showed that digital assets management systems cover the aspect of organization system, storage system, retrieval system and utilization system. The effective management of the digital assets enhanced organizational sustainability of radio station in Rivers State, Nigeria. Digital Assets Management Systems (DAMS) both the hardware software and the network components make it easier to collect, manage, and interpret data from multiple sources, giving client or customers the satisfaction or value for their money and helps the management and technical staff of the organization have brand consistency and effective and efficient right management. The output of the various analysis is a testament to the supportive role of digital assets management to organizational sustainability. Digital Assets Management is Effective and a

major tool for organizational sustainability especially in data driven organization like the Radio Stations in Rivers State, Nigeria.

Recommendation

Based on the literature properly reviewed, and the output of the analysis carried out, the following recommendation are made for the effective digital assets management system implementation in Radio Stations in Rivers State that will enhance effective organizational sustainability in terms of brand consistency and right management as follows;

i. The Radio stations in Rivers State that need effective brand consistency should implement good digital assets storage systems capable of managing the resources from different distributed databases and data warehouses.
ii. It is also necessary that the Radio Stations in Rivers State that desire to maintain brand consistency should implement digital assets storage system that is protected from unauthorized users for effective right protection and management

EFERENCES

Baines, T. S., Lightfoot, H. W., Benedettini, O. & Kay, J.M. (2008). The Servitisation of manufacturing: a review of literature and reflection on future challenges. *Journal of Manufacturing Technology Managemen*t, 20(5):547–567.

Blanco-Cadena, J.D., Moretti, N., Poli, T. & Re-Cecconi, F. (2019). Low-cost sensor network in cognitive buildings for maintenance optimization. *Technol Eng Mater Archit* 5(1):93–102.

Boton, C., Halin, G, Kubicki, S. & Forgues, D. (2015). Challenges of big data in the age of building information modeling: a high-level conceptual pipeline. *Artificial Intelligence and Bioinformatics*, 9(3), 48–56.

Chen, L., Zhang, H., & Wang, Y. (2022). Sustainable practices in the storage device industry: A focus on energy efficiency and recycling. *Journal of Cleaner Production*. 330: 129718.

Brandl, B and Dieterich, L. (2023). The exclusive nature of global payments infrastructures: the significance of major banks and the role of tech-driven companies. *Review of International Political Economy* 30(2): 535–557.

Delaney, B., & de Jong, A. (2015). Media Archives and Digital Preservation: Overcoming Cultural Barriers. *New Review of Information Networking*, 20, 73-89.

França, W.T., Barros, M.V., Salvador, R., Francisco, A.C., Moreira, M.T. & Piekarski, C.M. (2021). Integrating life cycle assessment and life cycle cost: a review of environmental-economic studies. *International Journal of Life Cycle Assessment*, 26(1), 244–274

Fisher, C. (2006). Manage digital assets with ITIL: Improve product configurations and service management. *Journal of Digital Asset Management*, 2(1), 40-49

Goldstein, B. (2016). Digital Asset Management Is Not Software or a System, But How to Do Business. *Journal of Digital Media Management,* 5, 6-11.

Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource dependence theory: A review. *Journal of Management*, 35(6), 1404–1427.

Hillmann, J., & Guenther, E. (2021). Organisational resilience: a valuable construct for management research? *International Journal of Management Reviews*, 23(1), 7-44.

Hurst, M. (2010). Search relevancy got you down? Learn how to use metadata to lift your results (and your mood). *Journal of Digital Asset Management*, 6(5), 285-290.

Jain, V., & Gupta, S. (2023). Enhancing data security in storage devices through blockchain technology. *International Journal of Information Security*. 22(3), 231-245.

Jones, K. & Sharp, M., (2007). A new performance-based process model for built asset maintenance, Facilities, *Electronic Journal,* 25(13), 525-35.

Kumar, R., Singh, M., & Kumar, S. (2020). Cloud storage: A transformative approach for data management in the modern enterprise. Journal of Cloud Computing: Advances, Systems and Applications. 9(1): 15-28

Liu, J., Wu, Y., & Wang, T. (2019). Performance degradation in SSDs: Causes and solutions. IEEE Transactions on Circuits and Systems I: Regular Papers. 66(1): 287-299.

Mokhtarian, K., & Rezaei, M. (2018). The Role of SSD in Enhancing Cloud Computing Performance: An Overview. *Future Generation Computer Systems.* 86: 290-299

Muradyan, S. V. (2023). Digital Assets: Legal Regulation and Estimation of Risks. *Journal of Digital Technologies and Law*, 1(1), 123–151.

Pfeffer, J., & Salancik, G. R. (2003). The external control of organizations: A resource dependence perspective. *Social Science Electronic Publishing*, 23(2), 123–133.

Gartner, P. (2019). Hype Cycle for Digital Asset Management. Available at: https://www.gartner.com/en/documents/3956115/ hype-cycle-for-digital-asset-management

Re-Cecconi, F., Dejaco, M.C., Moretti, N., Mannino, A. and Blanco Cadena, J.D. (2020). Digital Asset Management. In: Daniotti, B., Gianinetto, M., Della Torre, S., eds. Digital Transformation of the Design, Construction and Management Processes of the Built Environment. Research for Development. Cham: Springer. https://doi.org/

Schleicher, J. & Bach, P.M. (2016). Digital Asset Management: Content Architectures, Project Management, and Creating Order out of Media Chaos. 2nd ed. Burlington, MA: Focal Press, 107.

Tao, Y., Yan, Y., & Wang, X. (2021). Tape storage technology for big data archiving: Current status and future trends. Journal of Cloud Computing, *Advances, Systems and Applications*. 10(1): 1-14.