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Information governance and organization performance

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Abstract

The most valuable item that any company can own is information (Pay 2016) and varies from organization to organization, whether private or public. How well an organization is able to handle its information is central to its performance. In principle, an organization's strength lies on the way information is utilized, for example, management choices, marketing plans, customer interactions and post-sales services are hinged on information since it is a strategic asset (Daneshmandnia, 2019). The significance role of insurance companies to the economy is huge. The risk bearing and the investment promotions objectives coupled with the centrality of information as a critical assets prompted the investigation on information governance and its impact on performance. The Information Governance Maturity Model (IGIM) developed by ARMA is used in this study to serve as a benchmark for best practices for information governance maturity for insurance organization along with impact of this on asset utilization of each insurance organization.

Keywords: Information governance; Organizational performance; Insurance companies; Information Governance Maturity Model (IGIM); Asset utilization

1. Introduction

A company's contribution in every country is essential to the growth and hence economy of a nation. In particular, the insurance industry is anticipated to be the leader in management of risk in Nigeria (Ajao and Ogieriakhi 2018) since it plays a key role in the economy in the areas of risk bearing and tax payment, effective utilization of resources, reduction in transaction costs, promotion of investment and financial waste allocation (Opeyemi, Popoola and Yahaya 2020). In addition to maintaining financial stability, insurance companies make major contributions to the financial intermediation chain and provides a quick source of long-term finance for infrastructure projects (Augustine & Nwameka, 2011). These significant roles of the insurance sector make it an interesting field to study its performance.

There are various aspects to the performance of an organization. How well an organization is able to handle its information is central to the list of these elements. Undoubtedly, the most valuable item that any company can own is information (Pay 2016) and varies from organization to organization, whether private or public. It can be viewed as data (to be kept and retrieved), as a resource (to be duplicated and sold), as a process (communication), as improved study results (knowledge), and as technology (the hardware and the system) (Nolin 2010). In principle, an organization's strength lies on the way information is utilized, for example, management choices, marketing plans, customer interactions and post-sales services are hinged on information since it is a strategic asset (Daneshmandnia, 2019). The relevance of information in businesses has greatly increased the need for its governance (Lunardi, 2014).

Modern companies generally survive and thrive from customer databases to private product, service, software and algorithms information. While an organization's intellectual property information, client lists, customer and employee information, and other data exist, storage space for that data has been very inexpensive and easy to come by (Pay 2016).

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Nevertheless, the global increase in volume of information and storage of data has resulted into increase in storage cost (Ragan 2013).

The birth of information governance (IG) arose from the failure of traditional records management to keep up with the explosion of data in recent times (IGI Report, 2014), in addition to the rise of rules and compliance challenges. According to CIO, Information governance is really the practice of putting in place measures to mitigate the risk. organizations with good information governance programs should understand: What information is retained, where it is stored, how long it is retained, who has access to it, how information/data is protected, how policies, standards and regulations are used. In addition, on how organization can make information sustainable by ensuring economic viability and environmental protection in the lifecycle of information (Ragan 2013). Thus, to cover all phases of the lifecycle, a more comprehensive framework for managing records and information became necessary. This process is governed by rules, procedures and protocols to guarantee that information assets are effectively and efficiently used to meet the organizational objectives (de Abreu et al., 2013). Each organization is different however, the information governance framework often has a comparable advantage.

According to Earley (2016), inaccurate information and completeness increases operating costs while information governance is said to help monitor the safety of information and ensures compliance with it. As a result, effective information governance (IG) programs are needed to improve organizational performance and compliance capabilities especially in the financial sector while leveraging information as an asset to maximize their value and reduce cost (Smallwood, 2020).

In insurance institutions, effective information governance (IG) is needed to improve operational performance and compliance capabilities while leveraging information as an asset to maximize their value (Smallwood, 2020). This process is managed by policies, standards and procedure to ensure affective and efficient use of information asset to achieve organization goals. Each organization is different, but in general the Framework of information governance achieve similar advantage (Ragan 2013). Organizations are using information governance techniques in maximizing their potential to reach more customers, introduce new products and services quickly, and collaborate with suppliers and business partners from all over the world (Shaqiri, 2015).

The use of the Information Governance Maturity Model (IGIM) developed by ARMA in this study, among other maturity index is due to its high-level documenting guideline for excellent practices it offers (Hagmann 2013). The purpose of this maturity model is to measure organizational performance in the areas of information governance programs and how successfully information governance is implemented at different maturity levels being substandard level, development level, essential level, proactive level and transformational level (ARMA 2021).

1.1. Statement of Problems

Most organizations in Nigeria have closed down due to poor performance which are mostly attributed to poor information assets utilization (Akinleye and Dadepo 2019). Due to the increase in data generation in recent times, and peculiar challenges to data/information breaches, new regulations, organizations are finding it difficult to manage information /data within the information lifecycle framework (de Carvalho et al., 2020).

When firms are inadequate in their information administration, there are perceived obstacles (Agbolade, 2011). Information governance is the main drive of organizational learning. Similarly, corporate culture determines values and convictions. The necessity to manage and prioritize information appropriately is relevant to improving businesses' performance. On the one hand, personnel compliance level in insurance institutions are perceived to be on the list of priority organizations should consider to obtain a sustainable business (Edwin, 2014). Issues of sustainability of compliance is also a challenge that require urgent attention. Failure to comply with information privilege instructions may jeopardize the integrity of information which may amount to altering the organizational culture (Daneshmandnia, 2019).

In addition, it has also been reported that more than 70 percent of the defection of customers in the financial services sector is due to dissatisfaction with the quality of services delivered (Somers and Gupta, 2013). This is clearly a challenge of information governance. Organizations are also exposed to loss of integrity without dependable risk management policies in pace. Hence, the risk of hackers, denial of service attacks, technological failures, breach of privacy of customer information, and opportunities for fraud created by the anonymity of the parties to electronic transactions all have to be managed (Kagoda, 2011).

Without effective information governance, firms in the insurance industry will suffer from inefficiency of operating costs, inaccuracy of information quality, failure in competitiveness, incorrect estimation of project costs, inefficient performance of information divisions or the entire organization; these issues will reduce the performance of the firm (Salehi et al., 2021) and consequently, the whole economic growth in Nigeria. Thus, the study investigates the impact of information governance on organization performance using the insurance industry as a case study.

1.2. Research Questions

The following research questions were raised to guide the conduct of this research:

- What is the extent of adoption of information governance principles among insurance companies in Nigeria?
- What is the maturity level of information governance practice among insurance companies in Nigeria?
- What is the impact of adoption of information governance principles and maturity level on performance of insurance companies in Nigeria?

1.3. Aim of the Study

The main aim of this study is to evaluate the impact of organization information governance on the performance of the organization.

1.4. Objectives of the Study

The specific objectives are: I. To evaluate the extent of adoption of information governance principles among insurance companies in Nigeria. II. To identify the maturity level of information governance practice among insurance companies in Nigeria. III. To evaluate the impact of adoption of information governance principles and maturity level on performance of insurance companies in Nigeria.

1.5. Hypotheses

H01: There is no adoption of information governance principles among insurance companies in Nigeria. H02: There is no significant attainment of maturity level of information governance practice among insurance companies in Nigeria. H03: There is no significant impact of adoption of information governance principles and maturity level on performance of insurance companies in Nigeria.

1.6. Scope of the Study

The study focuses on the insurance industry. Specifically, the composite insurance consisting of 14 companies is considered for the study since they are not new to the industry, and because they are all involved in both life and non-life insurance; it is believed that these companies should have a strong working understanding of the advantages and drawbacks of the research topic. The composite insurance companies are: AIICO Insurance Plc, AXA Mansard Insurance Plc, Cornerstone Insurance Plc, Allianz Insurance Plc, Goldlink Insurance Plc, Great Nigeria Insurance Plc, Industrial and General Insurance Company Plc, Lasaco Assurance Plc, Leadway Assurance Company Ltd, Nicon Insurance Ltd, Niger Insurance Plc, Nsia Insurance Ltd and Alliance & General Life Assurance Plc. The unit of analysis are identified to be employees in charge of storage and retrieval information and data security, primarily the IT Managers in these companies.

1.7. Significance of the Study

Businesses play a crucial role in any country's economic success (Ahmed, Ahmed & Usman, 2011; Ajao and Ogieriakhi 2018). IG is believed to boost operational performance and compliance skills while exploiting information as an asset to optimize their worth in insurance firms (Smallwood, 2020). In order to ensure effective and efficient use of information assets in order to meet organizational goals, the process governed by policies, standards and procedures has to be monitored and evaluated. The importance of information governance framework lies in its integration of information performance with business value creation and value creation optimizes risk while at the same time optimizing resource costs (Saleh et al, 2021). The study is thus beneficial to the management of insurance companies and their regulating bodies as it will inform them on the relationship that exist between information governance and performance of organization. The study will inform organizations about the importance of improving information governance principles and assist the information technology (IT) manager and the chief information officers (CIO) of the insurance company to choose the right framework to be adopted for measuring maturity index. Furthermore, the study will contribute to the existing literature on information governance and organizational of performance.

2. Literature Review

2.1. Introduction

This chapter presents the conceptual framework and also the theoretical framework that underpins the variables under study. The concepts of organizational performance and information governance are extensively discussed and the theory is Agency theory that explains the relationship between the shareholders and mangers in an organization.

2.2. Organizational Performance

Researchers have proposed different meanings to depict organizational performance. Generally, organizational performance is an assessment of the actual outcome or results of an organization measured against its anticipated aims and objectives (Salehi et al., 2021). The performance of an organization reflects how effectively it has been utilizing and managing its resources (Daneshmandnia, 2019). According to Tahir (2020), the managers and directors of organization should be held accountable for the management of resources, hence the need for measuring organization performance. It is frequently tempting to let things go every year because the organization is busy offering services and believes that its objectives must be met. This strategy ignores the effectiveness of services and frequently results in businesses serving themselves rather than their customers.

Unfortunately, there is no single approach to execute or to establish standards for performance metrics. According to Richard et al. (2009), organizational performance can be evaluated considering three specific areas of the organization: the financial, product and shareholder return. Luo et al. (2012) reported, after conducting a systemic review, that performance can be evaluated in terms of economic and operational performance. This was in agreement with Ghouma, BenNasr and Yan (2018) who stated that it is vital to consider both financial and non-financial measures to enable correct evaluation of organizational performance. In addition, a balance scorecard incorporated with non-financial elements (Cormier, Gutierrez and Magnan 2020) has been developed into an integrated management and strategy planning system from a simple performance measuring framework to measure an organization's performance (da Silva et al., 2019). However, the essentials still remain the same: the performance metrics are used to monitor, evaluate and establish the (i) appropriateness of the organization's services; (ii) effectiveness and impact for clients and the community; and (iii) efficiency of the organization (Gupta and Pal 2020). The first consideration in choosing the organizational performance approach to be used is dependent on the purpose of conducting such performance (Tahir 2020). Whichever evaluation approach an organization decides to implement, performance indicators are required to assess what outcomes are being achieved.

For the purpose of this study, the financial performance and balance scorecard are employed to investigate the organizational performance of insurance companies. Ongore and Kusa (2013) measured the ability of the bank's management to generate income by utilizing company assets at their disposal; in the same vein, this study is to measure the organization management of information to attain maturity level. The use of balance scorecard, specifically the maturity index is to ascertain the maturity level (performance) of organization as it relates information governance. It means each staff member who performs the major functions must measure their job performance particularly their contribution to the goals of the firm in the aim to increase the profitability and wealth of the system (Abdollahbeigi and Salehi 2019). In addition, financial performance using asset utilization ratio is considered for the study since information is considered an asset. Most organizations in Nigeria have closed down due to poor performance which are mostly attributed to poor assets utilization and insolvency (Akinleye and Dadepo 2019). Assets utilization refers to the ratio of the total revenues earned divided by total assets owned by the company (Bukit, Haryanto and Ginting 2018). The argument for this study is that effective information governance will improve asset utilization and vice versa.

2.3. Information Governance

Any modern-day organization relies heavily on information which is considered a strategic asset (Babayants, 2018); the consistency, accessibility and protecting ability of this asset determines the success or failure of an organization. The most crucial aspect of a successful information management programme is a strategically developed frameworks (known as information governance), which describe how information is controlled, accessed and used (Babayants 2018).

A major contributor in the field of information governance, IG, according to Gartner, is a framework of roles and duties, decision - making procedures, and accountabilities in the gathering, processing, storage, utilization, archiving, and deletion of data (Gartner, 2009). According to CIO report, Information governance is really the practice of putting in place measures to mitigate the risk of losing information (Logan, 2010). Organizations with good information governance programs should understand: What information is retained, where it is stored, how long it is retained, who

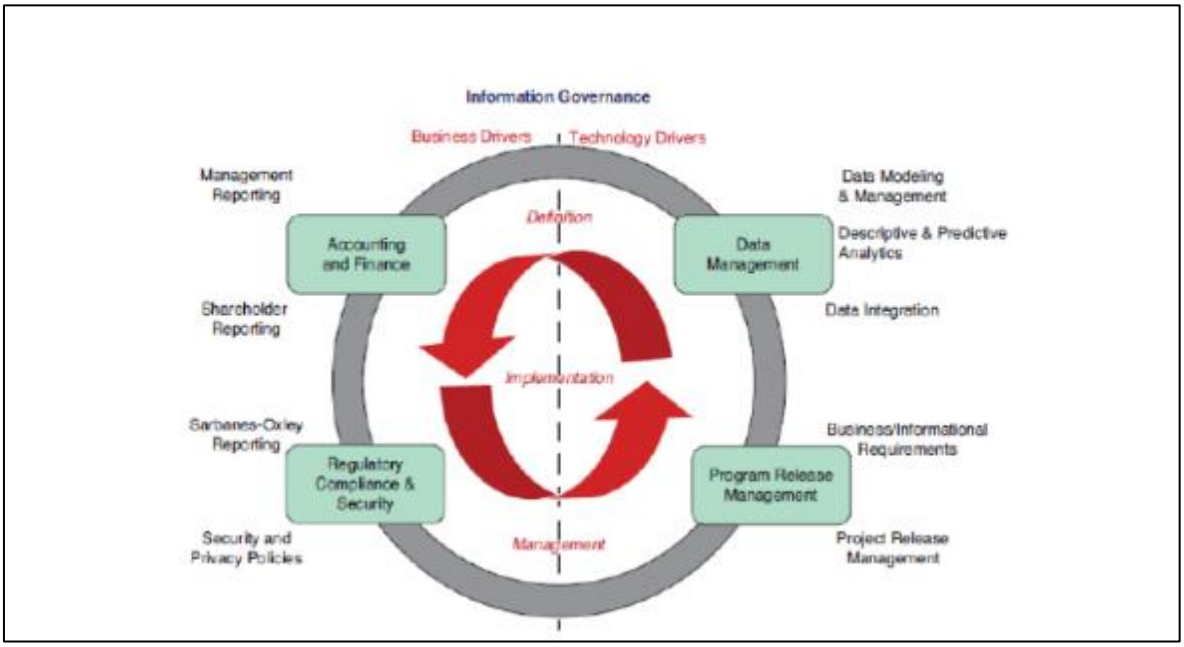
has access to it, how information/data is protected, how policies, standards and regulations are used (Robinson 2021). Kooper et al., (2011) defined information governance as 'a framework to optimize the value of information in some sense to the actors involved'. In his words, Hagmann (2013) described IG as 'the art of establishing a trusting relationship between an IG program's main stakeholders (IT Business, Legal and Compliance, RIM, Security and Privacy). They want to work together to reduce business information risks while increasing the value of information assets by fostering desired behaviors and facilitating cross-functional decision making' (Hagmann, 2013). Babayants (2018) in his own words defined information governance as "effective content controls, allowing all information to be securely and properly shared across departments, geographic locations, and systems". The important information governance framework integrates the information performance with business value creation and says value creation optimizes risk while at the same time optimizing resource costs (Saleh et al, 2021). Kooper et al., (2011) is of the opinion that information value cannot be left out in the framework of information governance since it determines the success of an information governance.

Gartner (2009) provides a clear message in this respect:

"Good governance has general aims to increase decision-making speed and effectiveness (efficiency), maximize information in terms of value generation and decrease company or organization expenses and hazards. Being a subset of corporate governance, information governance should not be thought of as part of "IT governance." Why? Because this approach supports the idea that IT is responsible for information. This is not. It is not. Information administration is NOT the IT province or at least not the IT province alone" (Gartner 2009).

Information governance spans both business and technology and not only the function of the information technology group (Iannarelli and O'Shaughnessy 2014). It is a base-level management function, much like human resources or finance. The policy on data generation and use with an organization actually serves as a corporate function with its primary directive. It is a key part of an organization's awareness that information governance should be seen as a continuous organizational function in line with accounting or marketing (Giordano 2014).

The organization is protected and efficient by a properly established and managed information governance program. Information management goes beyond solving an IT problem or finding a comprehensive solution to IT threats, it rather deals with inefficiency reduction and preparation for the future of information (Iannarelli and O'Shaughnessy 2014). It helps manage problems of compliance and might be crucial for the defense of litigation (Early 2017).



(Giordano 2014)

Figure 1 The business and technology drivers for information governance

Somers and Gupta (2013) indicated that more than 70% of customers' switch is related to dissatisfaction with the quality of services offered in financial services which is attributed to lack of information governance (Alawode and Kaka

2011). According to Earley (2016), inaccurate information and completeness increases operating costs while information governance is said to help monitor the safety of information and ensures compliance with it. As a result, effective information governance (IG) programs are needed to improve organizational performance and compliance capabilities especially in the financial sector while leveraging information as an asset to maximize their value and reduce cost (Smallwood, 2020).

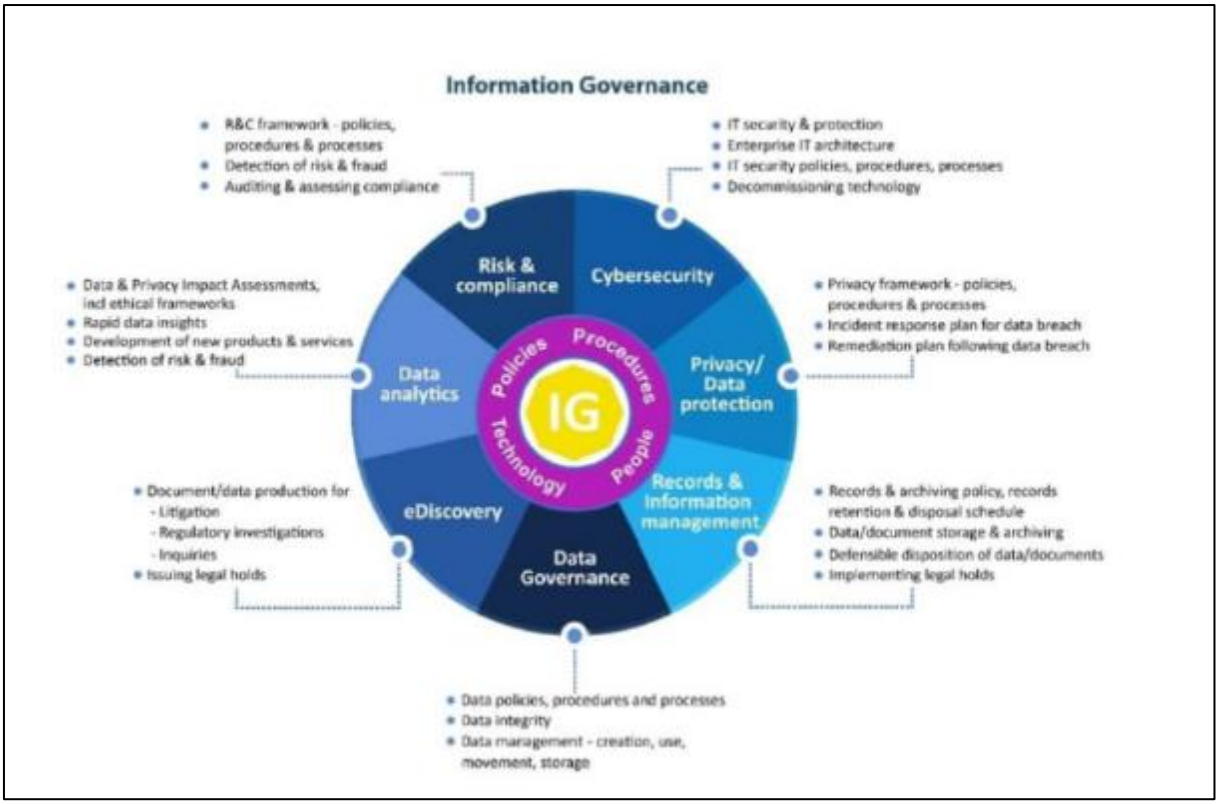
2.3.1. Differences between IT governance, data governance and information governance

Many firms actually fail to differentiate between IT governance, data governance and information governance (Hagmann 2013). Gartner, while responding to this stated that "for good governance, the general objectives are to increase decision-making speed and efficiency, to make full use of information in terms of value generation, and to lower business or organization's expenses or hazards. Information governance is a corporate administration component. In other words, it is not necessary to include information governance as part of IT governance. Why? Because such a stance fosters a wrong notion that IT is responsible for information" (Hagmann 2013). Data governance, on the other hand is a component of information governance since information encompasses the processing and storage of data. Kahn and Blair, (2004) presented the concept of information governance using a standard model of concepts of governance, risk and compliance (GRC), where: "Governance means the setting of corporate policies, rules, organization, processes and controls to keep the company compliant with all these requirements under the regime of a corporate governance framework; Risk Management keeps the balance between internal/external uncertainties or threats and possible business opportunities (risk tolerance); and Compliance means either a state of being in accordance with established guidelines, regulations, or legislation or the process of becoming so" (Kahn and Blair 2004; Hagmann 2013).

2.3.2. Information Governance Framework (IGF)

Information Governance provides an organizational structure, policy, technology and information management roles to optimize information value, fulfill regulatory and legal obligations, manage risk and promote strategic objectives. information management (Bennett 2017). Effective information governance makes proactive approaches of boards of directors and senior managers and aims to maximize the worth of information and identify the potential value of data as "newer oil" and to reduce risks and expenses for keeping information. Risks and costs include data breach, e-discovery (production of litigation documents and regulatory enquiries), ROT-storage of redundant, outdated and insignificant information that raises cost of data storage, e-discovery costs and additional internal data management personnel (Adams and Bennett 2018).

Compliance with regulatory duties, notably the rise of global privacy regulation, is the worldwide rising driver of good information governance (Adams and Bennett 2018). The first step in developing an IGF is to establish explicitly how information is handled across the organization and where personnel responsible for information and/or technology management are located across the divisions (Giordano 2014). Good data administration and compliance begins with the knowledge of and mapping of data, so that adequate steps can be done to secure and control it - a major difficulty for many companies (Ballard et al., 2014).



(source: Adams and Bennett 2018)

Figure 2 Information Governance framework

Following the framework by Adams and Bennett (2018), organization's IGF may contain the overarching information governance policy which may include: • Providing an overview of the management and the planning of information; • Identifying the approaches and drivers of business that decide or affect information production, administration and use, including legislation, rules, compliance, risk and business requirements; and • Establishing the organization's commitment to information management and support of the senior management.

2.3.3. Life Cycle of Information

The lifespan of information, like the lifecycle of a business, goes through several stages. Understanding each part of the database lifecycle is critical since information is required at every level of the business on a daily basis. To manage the entire information life cycle while maintaining governance, information governance necessitates structure and method. Its goal is to assure precision, consistency, accessibility, and security. Starting with data gathering and ending with data disposal, we can divide Information Lifecycle Management into seven phases for ease of understanding and removing data that is no longer useful is just as vital as acquiring it (Adams and Bennett 2018).

- Data Collection: This is the step where data from the defined data sources is collected. Through data gathering, information reaches the organization. Data may be obtained via trusted external resources, report writing and the receipt of data. It contains all the methods and APIs for the connection to the source to obtain the required data. In this step it is crucial that all the changes in sources or data may be updated and monitored at every level (Moulus et al., 2018). A company might obtain research and analytical data from different external sources. Each company has its own techniques to collect information. It specifies the information to be acquired and then determines the methods to be followed. The financial industry enters and also gets this information from devices like cellphones, POS swipe machines, ATMs and so on. The telecommunications sector obtains user data from its networks. Many information from outside resources is collected in governance separate from the information provided in the offices.
- Preserving Data: The many forms of mass information or large data that the company obtains, creates and receives from devices must be maintained for later use for processing and publishing are extremely difficult to store. Therefore, there is need to carefully keep and preserve all data collected by the company in an ideal method for quicker access (Blackburn, Smallwood and Earley, 2012). Data might be stored on third parties or parallel servers where and data are maintained, since accessibility and access time are determined to offer

quicker access. Data security is one of the key characteristics from this stage till it is deleted; in order for companies to flourish and sustain, security and privacy of information are vital (Lunardi et al., 2014). Data security is of the greatest importance, especially in the financial, medical, telecommunications and government industries.

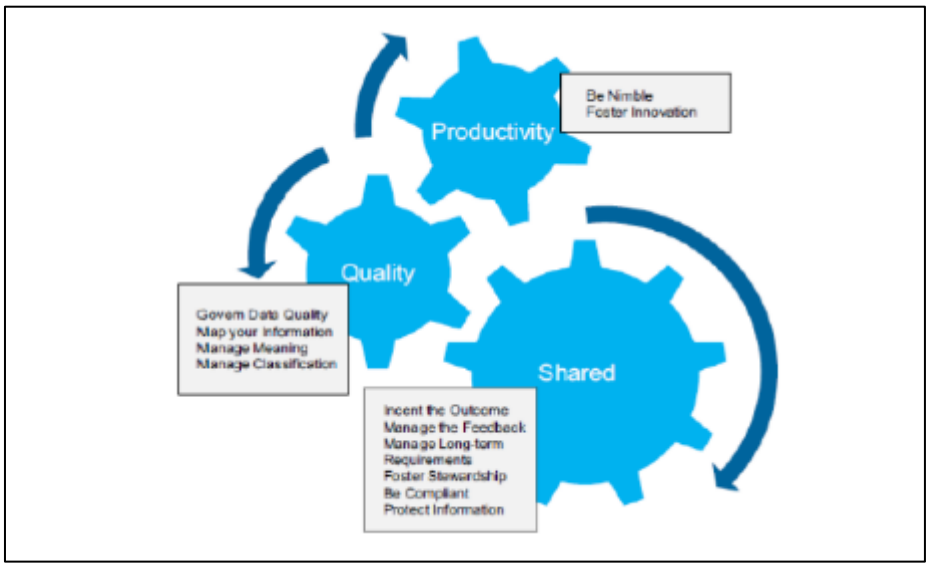
- Classifying Data: Classifying data allows rapid access to data compiled such as totals, averages, means and so on. When dealing with vast amounts of information, data classification becomes vital. Many key metrics are produced and saved as group information which facilitates and facilitates subsequent analysis and processing. In the insurance company, there's always bulk data that's generated which is grouped at the end of the day or periodically for convenience (Moulus et al., 2018).
- Processing Data: Data is collected, categorized, stored, and aggregated in order to process it so that it may be used. Payroll is processed using employee attendance data collected on a daily basis (Mendoza and Putri, 2020). In the telecom industry, call details for each client are utilized to analyze usage and develop better marketing strategies (Hung et al., 2006). The insurance sector analyzes and processes transaction data on a regular basis to better understand transaction trends and track money flow (Brown et al., 2011). For data processing, many organizations rely on software such as: Robotics Process Automation, Artificial Intelligence, Enterprise Resource Processing, Business Intelligence, Intelligent Automation, Virtual Reality, Machine Learning, and Artificial Reality, among other advanced technologies, are used to process data based on business requirements. Information processing can sometimes be aided by the most basic forms of processing, such as document management systems and database systems (Wickens and Carswell, 2021).
- Publishing Data: The data collected, stored, sorted, and analyzed is utilized to create reports for use by management and the general public since at every set time (monthly, quarterly or yearly), every company makes information available to its stakeholders, such as employees, vendors, and investors (Swift, 2001). Because the goal of publishing data is to make it available to the intended audience, data sharing is also an element of it. Businesses posting financial statements, market insights, and other types of data dissemination are common. Businesses utilize a variety of technologies to disseminate and report information such as financial performance, external communication, and other facts which are released on a regular basis in various media to reach the relevant audience (Saffady, 2016).
- Archiving Data: Another key part of information lifecycle management is data archiving. When large amounts of data are processed on a daily or recurring basis, storage and processing become prohibitively expensive because it stutters data processing and publication (Hu 2008). To counteract this, data is verified and archived on a regular basis. Data storage has facilitated the collection and retention of bigger quantities of data by businesses for a long duration. This degree of improved pricing performance has led customers to think that storage is free of charge so that insignificant data is not suppressed. Data analytics can provide significant insights via data mining, but in the short term their analytical value is insignificant (Tallon et al., 2013). Data subsets are used to archive data i.e. every archived set of data is represented as a subset. Data archiving improves the efficiency of data storage and retrieval; the information that is not needed right away is archived and stored separately from the active data storage environment to free up more space in the active data directory and speeds up processing by reducing the amount of data involved (Wickens and Carswell, 2021).
- Removing Data: Data must be examined on a regular basis and removed when it becomes redundant. Certain classified data must be withdrawn from the main data storage system and stored securely in a separate environment that is specifically maintained for that purpose (Wickens and Carswell, 2021). Data has a tendency to become outdated over time; consequently, outdated data adds to the cost of data storage and processing, thus it is carefully sorted and removed from the data server on a regular basis (Hu, 2008). This ensures that the monitored and screened data is used where it is needed. Every business's data undergoes a variety of modifications during its existence. Regardless of how the phases are labeled, corporate information lifecycle management is critical for a company to get the most out of the data it collects and generates (Wickens and Carswell, 2021).

2.3.4. Principles of information governance

The principles that are needed for governing information in any organization, including fundamental data management techniques have developed as technology improvements provided new potential to create value and new hazards to be managed and controlled by insurance businesses (Ballard et al., 2014). The principles are to be integrated into the organization information governance practices and should be driven into action by the leadership of an organization. This is achieved by guaranteeing that the concepts are disseminated extensively and broadly to all workers who handle data and information, from the customer service representative to the chief information officer (CIO) (Saffady, 2016). The principles are needed by every employee in the insurance company to aid as guide as they take every little decision. Although this is true, many organizations often fail to practice the concepts and in order to achieve short cuts and compromise, the principles are swept aside (Ballard et al., 2014). Consequently, as part of the organization's

Information Governance journey, a question that must be constantly asked is 'What is the status of the essentials in my company, and why is this the case?'. In addition to this, the principles provide the framework for developing a policy (which is subordinate to the communication of the concepts and ultimate incorporation into the organization) and encompasses how an organization's principles are systematically implemented.

Be nimble: The focus of data management methods must provide sharp answers to technological changes, client needs and domestic procedures.



(source: ballard et al., 2014)

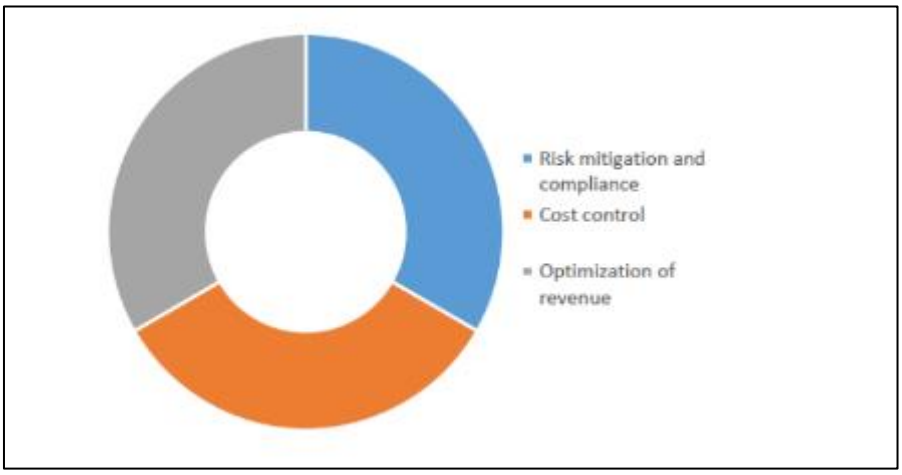
Figure 3 Root Principles of data management

- Foster stewardship: To ensure proper data use and reuse, the employee must take action. This function cannot be automated, and therefore necessitates the direct engagement of a firm employee who will serve as the data element or source manager.
- Encourage the outcome: Quality, security, and data governance/compliance are all dependent on your personnel.
- Manage meaning: Data is the business's language. In this respect, understanding and actively managing the language lowers complexity, duplication and incompatibility, which are directly related to the improvement of information quality.
- Manage classification: It is important that the business manager classifies the source and the content as soon as the owner provides support for administration and monitoring of the information life cycle and for compliance with regulations (Ballard et al., 2014).
- Manage feedback: An increase in intensity of procedure, which works in tandem with policies and standards, allows for communication across the company when policies and standards conflict with new business requirements. It's the backbone of the process for making policy and standard texts better.
- Control third-party content: Third-party data is becoming more important in big data, and organizations must examine applicable legislation for their operational geographic locations. As a result, companies must understand and manage their responsibilities (Ballard et al., 2014).
- Map your information: An organization's ability to succeed depends on its understanding of the entire company and the dissemination of information across all activities.
- Manage quality: Due to significant role of information and data, continuous performance is crucial to the quality of the contents for organization performance.

2.3.5. Benefits of Information Governance

The significance of information governance in the improvement of organization performance has been emphasized by the available literature on information governance (de Abreu, Maçada and Kumar 2013; Kooper et al., 2011; Robinson 2021) as it provides a wide range of benefits to the organization. According to Robinson (2021), information governance ensures the following: easy access to required information; proper management and storage of data; correct observation of regulatory requirements; and risk management of information.

Adopting an Information Governance approach is central to achieving success with information economics. In a summarized opinion, Earley (2016) stated three main benefits that an organization can derive from information governance. The ability to control expenses is the usual manner of justifying and profiting from a governance program. Low quality and integrity of data increases operating costs. Moreover, information governance supports risk management and compliance (Earley, 2016). Through an established roadmap of tools and practices of information governance, organizations can promote openness that helps to ensure the defensible disposal of unnecessary data. Everyone profits from removing superfluous data trash. Corporate information assets will increase optimum value for business users; in IT and legal departments, cost control will be strengthened and the overall risk exposure to businesses will be significantly reduced.



(source: Earley. 2016)

Figure 4 Benefits of information governance

- Risk management and compliance: The risks that companies face are both financial and non-financial. In the context of information, the focus naturally tends to be on non-financial risks, such as credit, liquidity or market risks, although there is also an increasing emphasis on operational risk. Risk management is a procedure which allows information technology managers (IT) to balance the economic and operating cost of protecting the company's data protection and IT systems by means of protective measures. It discovers, evaluates and monitors dangers to the company's capital and income (Laine, 2016).
- Risks management is not about avoiding risk, which is a necessary part of doing business and starting a corporation (Earley, 2016). Conversely, one of the most important lessons from the financial crisis for both financial and non-financial organizations has been the need to tighten risk management strategies.
- Control cost: Information Governance allows for quick and thorough e-discovery (Earley 2016). In the discovery process, organizations invest months, years and sometimes millions of dollars. Because the company keeps all of its data, the discovery team must evaluate each piece of data that could be useful. Organizations can minimize storage, legal hold and e-discovery costs and lessen "digital garbage" while immediately enhancing the odds of obtaining information. Moreover, the reduction of duplication and value-added data has a direct impact on cost of discovery (Laine, 2016). With the advent of information governance, only acceptable material is easily identified and accessible to its users (Earley, 2016).
- Optimization of revenue: With as few versions of information as possible and clear automated archival and deletion policies established, organisations can save a significant amount of money on their storage and IT infrastructure. Information Governance highlights where legacy data that provides no value still resides within the company. Often, much of the information within an organisation will have outlasted the person who put it there anyway. It will also identify entire applications and systems that are obsolete but still consuming space and management cost.

2.3.6. Sustainability of information governance

The maintenance of information governance leads to its sustainability and this can only be achieved when the regulations are followed and compliance is maintained (Iannarelli and O'Shaughnessy 2014). The lack of a plan or an understanding of how to comply with different legal or governmental issues are problematic in a heavily regulated industry. A publicly held company has regulations that dictate how the company is governed and how it manages information internally and externally. The Sarbanes-Oxley Act is the most well-known regulatory legislation, but other

laws and regulations are also designed to protect companies, shareholders, and the public from malfeasance and mismanagement. Information security and information management are a large part of properly governing a company. In the legal arena, the advent of electronic discovery and computer forensics have opened doors for lawsuits, more thorough antitrust reviews, and requests for larger and better-defined scopes of information.

2.3.7. Information Governance Maturity Framework

There are many well-recognized maturity indices which comprise numerous best practices, measures, indicators, processes and key areas that can be considered by organizations to determine how they fare in different aspects of operations (Saleh et al., 2021).

- **Asset Management Maturity Model (AMMM)**: This model was designed by VanDerLei et al., (2011) to evaluate how long-term investment decisions were handled by asset managers in an organization.
- **Digital Asset Management (DAM) Maturity Model**: This model was developed by DAM Foundation as an instrument for the management of information, systems and procedures that make possible the management of assets from idea-building to design, conservation, analysis and archival (Proença, Vieira and Borbinha 2016). The DAM Maturity Model offers direction on how to devise a more mature strategic DAM and allows organizations to compare with their industry or vertically while it is used as a tool for firms' assessment of their levels of competence.
- **Records Management Maturity Model (RMMM)**: This model was developed by JISC infoNet as a self-assessment tool based on a code of practice for higher education institution in England. The ARMA International in has developed the GARP Principles (Generally Accepted Recordkeeping Principles, GARP) in order to better sell RIM to the executive level under the umbrella of IG.
- **Information Governance Maturity Model (IGIM)**: This model was developed by ARMA which helps to identify the stakeholders, define their respective "stake" in information, and highlights their intersection and dependence upon each other (Hagmann 2013). More importantly, it exemplifies the program's goal of effective and efficient governance and incorporate with it the element of privacy and security risks and compliance (Proença et al., 2016). The ARMA International has developed the GARP Principles (Generally Accepted Recordkeeping Principles, GARP) in order to better sell RIM to the executive level under the umbrella of IG.

OPTIONS	DESCRIPTION
LEVEL 1: NON EXISTENT/SUBSTANDARD	The item in question is either not addressed, minimally addressed, or sporadically addressed. Essentially nothing is in place
LEVEL 2: IN DEVELOPMENT	The item in question is in the active, early stages of development, but there are still significant gaps that must be closed before all of the basics are in place
LEVEL 3: ESSENTIAL	The basic requirements for the item in question are being met, but not much else. Issues may be being addressed reactively.
LEVEL 4: PROACTIVE	often exceeded, industry best practices and standards are being incorporated, and there are mechanisms in place for continuous improvement. Most issues are being addressed
LEVEL 5: TRANSFORMATION	The item in question is being addressed at an advanced level. Industry best practices and standards are being met, are routinized, and are being integrated into the information

(ARMA, 2021)

Figure 5 ARMA maturity levels

- **Information Governance Reference Model (IGRM)**: RIM is addressed under the domain area of "Information Lifecycle Management" by IBM, which established an attractive evolving paradigm based on a data governance approach" (IBM, 2007) with the focus on Data architecture, organizational structures and awareness, Information security and privacy, stewardship, Policy, Value Creation, Data quality management and Data risk management and compliance. Other focus are Audit information, Classification and metadata, Information Lifecycle Management, logging & reporting and Big Data. Next is the Information Governance Reference Model (IGRM) such from EDRM or models from ARMA and AIIM which helps to identify the stakeholders, define their respective "stake" in information, and highlights their intersection and dependence upon each other (Hagmann

2013). More importantly, it exemplifies the program's goal of effective and efficient governance and incorporate with it the element of privacy and security risks and compliance.

This study has considered to adopt the use of the Information Governance Maturity Model (IGIM) developed by ARMA, among other maturity index since it offers a high-level documenting guideline for excellent practices (Hagmann 2013). The purpose of this maturity model is to measure organizational performance in the areas of information governance programs and how successfully information governance is implemented at different maturity levels being substandard level, development level, essential level, proactive level and transformational level (ARMA 2021).

The ARMA maturity levels are defined as follows:

- **LEVEL 1: NONEXISTENT/SUBSTANDARD** - The item in question is either not addressed, minimally addressed, or sporadically addressed. Essentially nothing is in place.
- **LEVEL 2: IN DEVELOPMENT** - The item in question is in the active, early stages of development, but there are still significant gaps that must be closed before all of the basics are in place.
- **LEVEL 3: ESSENTIAL** - The basic requirements for the item in question are being met, but not much else. Issues may be being addressed reactively.
- **LEVEL 4: PROACTIVE** - The basic requirements for an item in question are being met and often exceeded, industry best practices and standards are being incorporated, and there are mechanisms in place for continuous improvement. Most issues are being addressed.
- **LEVEL 5: TRANSFORMATION** - The item in question is being addressed at an advanced level. Industry best practices and standards are being met, are routinized, and are being integrated into the information.

2.4. Empirical Review

In this section, some of studies conducted in the past was reviewed. To start with, a unified governance framework incorporating corporate governance, information technology governance, and information governance was investigated by Lajara and Maçada (2013) in a study. The study also looked at the definitions of information's value, quality, and compliance within the organization's information environment. To do this, a case study approach (exploratory and descriptive in nature) was conducted in a defense manufacturing business in southern Brazil using three in-depth interviews, papers given by the firm, as well as public documents, and direct observation were analyzed as part of the case study employing triangulation in the evidence. Using the snowball technique, interviewees were chosen by indicating who would be the next interviewee, and the first interviewee was the IT manager. The interviews were analyzed using thematic-based content analysis, and a roadmap of the codification process was created to aid with replication. The study reported that the characteristics of information governance in the case study have a greater impact on how the firm perceives information than information value and that there are many pieces to the puzzle of the information environment at company. The study thus recommended that in order to match information components and deliver value to users, it is necessary to increase information quality and compliance; strengthening and formalizing the primary aspects in each dimension of IG can help achieve this goal.

According to Halim et al., (2018), IG policies have a number of important and appropriate elements that they share. It was then determined whether or not the identified criteria could be implemented in Malaysia's public sector. Interviews, observations, and document content analysis were employed as data gathering tools in a qualitative survey method using Malaysian Administrative Modernization and Management Planning Unit (MAMPU) as a case study. According to the findings, there is currently no proper IG policy framework to which the public sector can refer when implementing information governance.

Information governance (IG) performance in higher education institutions (HEIs) was examined by Daneshmandnia in 2019. In order to determine if organizational culture effects IG effectiveness, a survey and interviews were conducted with IT professionals at HEIs, including chief information officers, chief technology officers, chief information security officers, as well as directors of IT. Information security, the role of an IG council, the presence of a Record Information Management department, the role of a compliance officer and information stewards and use of an automated system or software to identify and maintain records were all identified as IG activities (processes) that needed to be addressed.

Lopes and Farias (2020), in a systematic analysis of 36 empirical research reported that the qualities that should compose governance in order to foster collaborative innovation processes in the public sector could help bridge this gap. A beneficial influence of governance on collaborative innovation processes is the formation of trust connections supported by technology tools and facilitated by leaders who are committed to well-established goals, according to the study's findings.

Al Wahshi et al., (2021) studied how various IG techniques might benefit Omani banks in enhancing their capacity for controlling ML-related data/information in a way that allows them to limit the hazards of ML. Three key sources of qualitative data, including semi-structured interviews, focus groups, and document reviews are used in the study. Analysis and categorization of the interview data will be done using thematic analysis (TA). Purposive sampling was used to select participants from six commercial banks in Oman.

Using a combination of social network analysis and knowledge management theories, Geurten (2021) tried to increase information quality by using governance. Interviews were used to study governance questions in the literature and inside the Royal Philips Image Guide Therapy cluster. Social network analysis and knowledge management were combined to create a method for analyzing information flows within an organization. Using this strategy, Philips conducted a case study with 21 workers. It has been shown that the strategy provides insight into who and how knowledge is disseminated. The study identified inefficiencies in the organization's network and suggests ways to enhance it, resulting in improved information governance.

2.5. Theoretical Framework

The theory that was considered fit for the study is Agency theory which was proposed by Jensen and Meckling (1976). Though, Jensen and Meckling (1976) offered the first full exposition of agency theory; Adam Smith (1776) and Ross (1973) and Davis et al (1997) later examined the possible challenges and problems. The theory established a relationship between the principals (e.g. shareholders), the agents (e.g. company executives) and the managers (Singh and Davidson 2003). The agency theory focuses on problems that can develop when one component (the 'principals') contracts with another part (the 'agents') to make choices on behalf of the principals (Davidson, Bouresli and Singh 2006). The theory's viewpoint asserts that the principals outsource the administration of the business to directors and engage the agents to undertake certain tasks on their behalf (Fadun 2013). Shareholders ideally expect the agency to operate and decide in the interests of the main. Nevertheless, the agent must not behave and make judgments for the good of the officers (Davidson et al., 2006; Fadun 2013). In this type of engagement, the problem that may arise (agency problem) is such when refuse to disclose the business information to the principal (a case of information asymmetry) and hence manage the organization in their own interest (Fadun 2013). An 'agency costs' can be stated for lost from the misdirected interest of opportunistic and self-interested managers.

The agency cost measure is the ratio between annual sales and total assets, a measure of the utilization of asset. This ratio reflects the ability of management to efficiently use assets (Singh and Davidson 2003). A high turnover ratio for assets suggests a significant quantity of income and eventually cash flow generated by a particular asset level. A low percentage would suggest that management uses assets that generate non-cash flows and possibly ruin companies. Efficient asset management practice (in this case information governance) and thus the production of value by the owners might identify higher asset turnover, but less revenue to the asset ratio signals asset deployment for unproductive objectives. Thus, organizations with significant conflict of agencies will have lower asset revenue ratio compared to those with fewer conflict agencies. (Singh and Davidson 2003). Some of the scholars that used this theory for governance and performance relationship include Singh and Davidson (2003), Davidson et al., (2006), Fadun (2013) and Salehi et al., (2021).

3. Research Methodology

3.1. Introduction

The methods utilized to conduct research are covered in this chapter. The chapter discusses the design and techniques of research, the validity and reliability of the results of research, study limitations, and data analysis. Aina (2010) argued that the methodology of research is a useful part of a research process. Likewise, MacDonald and Headlam (2008) claimed that effective methods of research are tools used to assemble information. The researcher may not be able to obtain crucial quality information for the study without the suitable design and effective utilization of research methods. The methodology for research determines the systematic and scientific methods that lead the study to the results and results of the research.

3.2. Research Design

Research design is the simplified representation of methods that connects scientific evidence to research issues and findings. The study adopts a quantitative research approach using descriptive research design. Descriptive research is used to acquire information on the current state of the phenomenon and to describe variables or circumstances in a given context (Cavana, Delahaye & Sekaran, 2001). This choice of design permitted the study to learn about the impact

of information governance on the organization's performance using information from primary data. This type of design also helps to build a more concentrated study since it produces rich data that leads to key practice suggestions.

3.3. Population and Sampling Technique

Sampling involves selecting a subgroup of individuals from the target population so that the attributes of the whole population can be estimated (Singh and Masuku 2014). The target population consist of the employees in the thirteen composite insurance companies in Nigeria based on a judgmental sampling technique. This type of technique allows researchers to sample a group of people they feel have a strong understanding of the topic they are studying (Mostaghel, 2006). It was decided to use a composite of insurance firms since they are not new to the industry, and because they are all involved in both life and non-life insurance; it is believed that these companies should have a strong working understanding of the advantages and drawbacks of the research topic. The composite insurance companies are: AIICO Insurance Plc, AXA Mansard Insurance Plc, Cornerstone Insurance Plc, Allianz Insurance Plc, Goldlink Insurance Plc, Great Nigeria Insurance Plc, Industrial and General Insurance Company Plc, Lasaco Assurance Plc, Leadway Assurance Company Ltd, Nicon Insurance Ltd, Niger Insurance Plc, Nsia Insurance Ltd and Alliance & General Life Assurance Plc. Considering the small size of the target population, the sampling technique that is employed is census sampling technique which enables the researcher to gather information from every member of the population. Study participants from these insurance companies will be identified to be employees in charge of storage and retrieval information and data security, primarily the IT Managers.

3.4. Sources and Method of Data Collection

For the data collection, the study employs a survey method because of the context in which the data will be collected which involves collection of primary data using questionnaire. Mugenda (2003) says that empirical evidence is being collected in order to get fresh insights into a situation and answer questions that inspired the investigation. The questionnaire is an instrument consisting of set of questions that will be administered to study participants in a bid to evaluate the information governance approach for enhanced performance. The questionnaire is the most frequent research tool, suitable for helping the researcher ask questions and easily get the data. The questionnaire consists of thirty-two (32) items and was divided into sections. Section A contains four questions to collect data on demographical distribution of respondent and section B contains twenty-eight (28) statements to measure the adoption of information governance and the maturity levels. The items are adapted from ARMA (2020). The maturity model contains seven key areas in which the adoption of information governance is being tested. The key areas are: Steering Committee, Authorities, Supports, Processes, Capabilities, Structures and Infrastructure. For each principle the characteristics of effective information governance is measured using a five scale/distinct levels of development: substandard, in development, essential, proactive, transformational. To investigate the impact of information governance on organization and performance, asset utilization ratio (a measure of performance) is calculated for the companies under study.

3.5. Validity and Reliability of Research Instrument

After developing the instrument, face and content validity were established by subjecting it to a critical assessment by the researcher's supervisor who helped to ascertain that the contents of the instrument were in line with the purpose of the study, research questions and hypotheses. Adapting a certified IGIM from ARMA contributes to the reliability of the instrument.

3.6. Method of Data Analysis

To analyze the data, descriptive statistics is employed for better understanding of the demographics of the target population with respect to age, gender, job positions, years of working experience etc. presented in form of graphs and charts. for objective one, a list of information governance practices is provided. The mean response of the participants is used to identify the extent of adoption of information governance and the maturity level for insurance companies and to examine the issues relating to sustainability of information governance. For objective two, regression analysis is done to investigate the impact of maturity level of information governance practices on organizational performance in the insurance industry in Nigeria. A linear model (equation 1) in its implicit for in line with the model used by Fadun (2013). The independent variable is the information governance measured by the maturity index of the companies while the dependent variable is the organizational performance and it is measured using asset utilization ratio for each company under study.

$$Y = \alpha 0 + \beta \text{ Fit - - Equation 1}$$

Where, Y = dependent variable (organizational performance), β = coefficient of the explanatory variable (information governance maturity level), Fit = explanatory variable and eit = error term (assumed to have zero mean and independent across time period).

In the explicit form, AUR = α + β1 MI- - - - Equation 2

Where AUR = Asset Utilization Ratio (a measure of organizational performance) MI = Maturity index (a measure of information governance)

The choice of this statistical tool lies in its ability to explain the cause-effect relationship between variables (dependent and independent) and to predict changes in the dependent variable (organizational performance) using independent variables (information governance). Lastly, for the last objective, issues related with sustainability of information governance is identified from the ARMA maturity level and recommendations are provided accordingly.

4. Data Presentation and Analysis

4.1. Introduction

This chapter presented and discussed the data collected in the course of the study. The composite insurance companies from which data were collected are: AIICO Insurance Plc, Allianz Insurance Plc, Goldlink Insurance Plc, Industrial and General Insurance Company Plc, AXA Mansard Insurance Plc, Cornerstone Insurance Plc, Lasaco Assurance Plc, Leadway Assurance Company Ltd, Nicon Insurance Ltd, Great Nigeria Insurance Plc, Niger Insurance Plc, NSIA Insurance Ltd and Alliance & General Life Assurance Plc. The chapter began with the analysis of the questionnaire using SPSS 23, followed by the presentation of the result of the data collected. This was concluded with the discussion on the research finding of the study.

4.2. Data Presentation and Analysis

The data collected was collected using an online survey form created by the researcher and was sent to the mail of the respondents after seeking their consent to participate in the study. Out of the 14 composite firms, only 11 responses were obtained and the rate of response was calculated and presented in the table below.

Table 1 Response Rate

Item	Frequency	Percentage (%)
Questionnaire sent out	14	100.0
Questionnaire returned	11	78.6
Questionnaire not returned	3	21.4
Total	14	100.0

Source: Field Survey (2021)

The eleven responses out of the fourteen forms sent out represent 78.6% return rate. The return rate was considered acceptable considering the argument of Mugenda and Mugenda (2008) who stated that a response rate of 50% is considered adequate, a response rate of 60% and above is considered good, and a response rate of 70% and above is predominantly good. Furthermore, according to Field (2013), a study's statistically significant response rate should be at least 50%, indicating that the threshold criterion was reached, thus the response rate of 78.6 percent was determined to be adequate for the study and was used for the analysis.

4.3. Demographic Variables

This section presents information on the demographic characteristics of the respondents who took part in this investigation. The demographics variables are based on highest educational qualification and year of work experience.

4.3.1. Highest Educational Qualification

The results show that out of eleven (11) respondents, five (5) respondents representing 45.5% are employees with master degree while six (6) respondents representing 54.5% are employees with BSc or HND. Considering this result, all the respondents have formal education to understand the concept of the study.

Table 2 Highest Educational Qualification

Educational Qualification	Frequency	Percentage (%)
BSc/HND	6	54.5
Masters	5	45.5
Total	11	100.0

Source: Field Survey (2021)

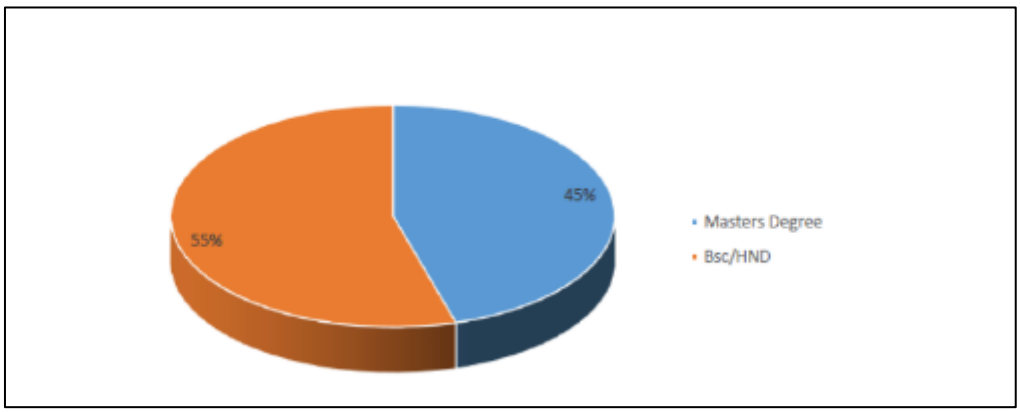


Figure 6 Distribution of highest educational qualification of the respondents SPSS output, 2021

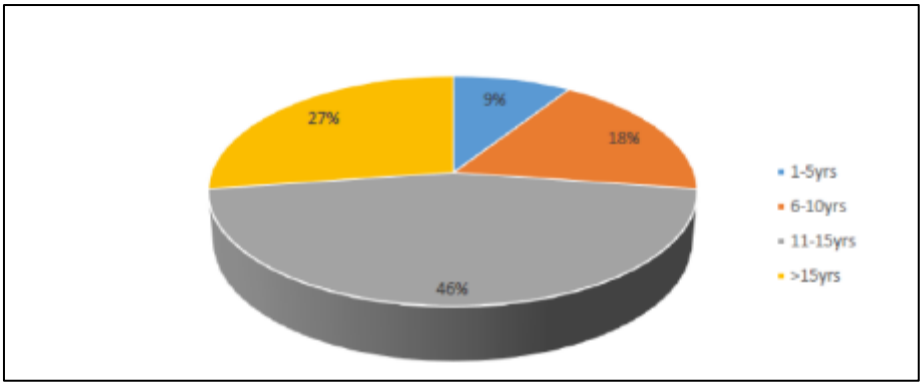
4.3.2. Years of Work Experience

The results indicate that one (1) respondent representing 9.1% have been working with the company for the period of 1-5 years, two (2) respondents representing 18.2% have been working with the company for the period of 6-10 years, five (5) respondents representing 45.5% have been working with the company for the period of 11-15 years and three (3) respondents representing 27.3% have been working with the company for more than fifteen (15) years. Owing to this, majority of the respondents have been working with the company for more than ten (10) years which implies that they are familiar with operations and principles as it relates to information governance in their organization.

Table 3 Years of Work Experience

Years of Experience	Frequency	Percentage (%)
1-5 years	1	9.1
6-10 years	2	18.2
11-15 years	5	45.5
Above 15 years	3	27.3
Total	11	100.0

Source: Field Survey (2021)



SPSS Output 2021

Figure 7 Distribution of years of work experience of the respondents

4.4. Descriptive Statistics

This section presented the descriptive statistics of the independent and dependent variables. The dependent variable is performance and is measured using the asset utilization ratio. The minimum value for the asset utilization ratio for the sampled insurance companies is 5%, the maximum value is 53%. An asset utilization ratio of 53 percent implies that the company earned 0.53 for each naira of assets held by the company. Increased asset utilization indicates that the organization is getting more value out of each naira of assets it possesses.

The independent variables comprise the information governance principles represented by the seven key areas in ARMA maturity model. The key areas are: Steering Committee, Authorities, Supports, Processes, Capabilities, Structures and Infrastructure. For each principle, the characteristics of effective information governance is measured using a five scale/distinct levels of maturity.

Table 4 Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Asset Utilization Ratio	11	0.05	0.53	0.2827	0.16406
Steering Committee	11	3.00	5.00	4.0000	0.63246
Authorities	11	3.00	5.00	4.0909	0.53936
Support	11	3.00	5.00	4.0909	0.70065
Processes	11	3.00	5.00	4.1818	0.60302
Capabilities	11	3.00	5.00	4.0909	0.70065
Structures	11	3.00	5.00	4.0909	0.70065
Infrastructure	11	3.00	5.00	4.0909	0.70065
Maturity Index	11	3.00	5.00	4.0909	0.53936
Valid N (listwise)	11				

Source: Field Survey (2021)

The analysis of each principle showed that:

- **Steering Committee**: Most of the composite insurance companies sampled are at a proactive maturity level as it relates to the 'steering committee' as IG principle.
- **Authorities**: Most of the composite insurance companies sampled are at a proactive maturity level as it relates to the 'authorities' as IG principle.
- **Support**: Most of the composite insurance companies sampled are at a proactive maturity level as it relates to the 'support' as IG principle.

- **Processes**: Most of the composite insurance companies sampled are at a proactive maturity level as it relates to the 'processes' as IG principle.
- **Capabilities**: Most of the composite insurance companies sampled are at a proactive maturity level as it relates to the 'capabilities' as IG principle.
- **Structures**: Most of the composite insurance companies sampled are at a proactive maturity level as it relates to the 'structures' as IG principle.
- **Infrastructure**: Most of the composite insurance companies sampled are at a proactive maturity level as it relates to the 'infrastructure' as IG principle.

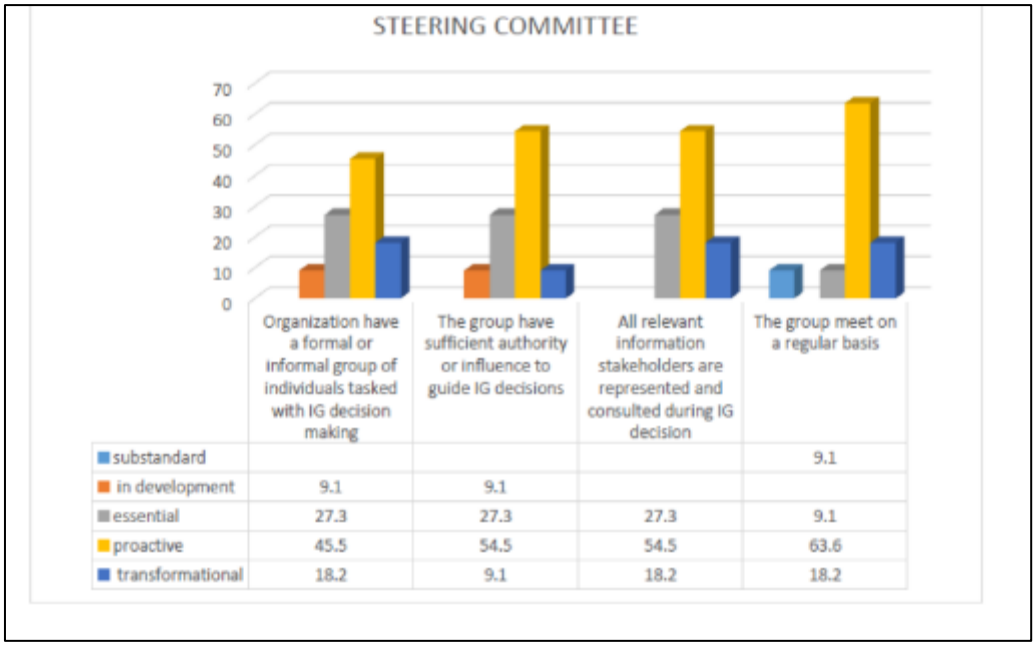


Figure 8 Percentage response on maturity level relating to having 'steering committee' as information governance principle

The mean responses revealed that all the composite insurance companies have the IG principles such as Steering Committee, Authorities, Supports, Processes, Capabilities, Structures and Infrastructure as tested by the study. The mean responses are quite above average (2.5 for a scale of 5) indicating that all the respondents agreed to the adoption of IG principles in their respective organizations.

4.5. Regression Analysis

This section presents the analysis done to investigate the impact of maturity level of information governance practices on organizational performance in the insurance industry in Nigeria.

The correlation coefficient (R) of 0.764 which is 76.4%, showing that maturity level of information governance practices is positively and strongly related to organizational performance (measured by assets utilization ratio). Also, the co-efficient of determinations (R2) reveals a value of 0.584 indicating that the maturity level of information governance practices explains up to 58.4% of the variation in the organization performance while the remaining 41.6% is accounted for by IG principles that are not covered in this study which can affect the performance of the company. More so, the adjusted R square of 0.538 further indicates that maturity level of information governance practices will still cause a variation of 53.8% in organizational performance if other variables are added to the study. In addition, the F-Statistics with its significance shows the fitness of the model. The significance value of 0.006 is less than 0.05 indicating that the model is fit at 5% level of significance and the explanatory variable have been carefully selected.

Table 5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.764[a]	0.584	0.538	0.11149

[a] Predictors: (Constant), Maturity Index; *Source: Field Survey (2021)*

5. Discussion of Findings

5.1. The extent of adoption of information governance principles among insurance companies in Nigeria

The first objective was to evaluate the extent of adoption of information governance principles among insurance companies in Nigeria. The result revealed that all the mean responses were well above average (2.5, for a scale of 5) indicating that most of the insurance company adopts the use of the IG principles relating to having Steering Committee, Authorities, Supports, Processes, Capabilities, Structures and Infrastructure.

As stated by Keyser and Dainty (2018), one of the principles responsible for the success of Information Governance in any organization is having a Council (or Steering Committee) which represents a mix of various specialists with varied functional requirements. In the opinion of Giordano (2014), one of the main reasons why previous attempts to develop an efficient information governance program often fail was the lack of a clearly identified executive sponsor.

Table 6 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.157	1	0.157	12.636	0.006[b]
	Residual	0.112	9	0.012		
	Total	0.269	10			

[a] Dependent Variable: Asset Utilization Ratio
[b] Predictors: (Constant), Maturity Index; Source: Field Survey (2021)

Table 7 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.894	0.252		-3.551	0.006
	Maturity Index	0.287	0.081	0.764	3.555	0.006

[a] Dependent Variable: Asset Utilization Ratio; *Source: Field Survey (2021)*

5.2. The maturity level of information governance practice among insurance companies in Nigeria

The second objective of the study was to identify the maturity level of information governance practice among insurance companies in Nigeria. The result revealed that most of the respondents stated that their organization is at the proactive maturity level. However, this level indicates that there are mechanisms in place for continuous improvement, most issues relating to information governance are being addressed.

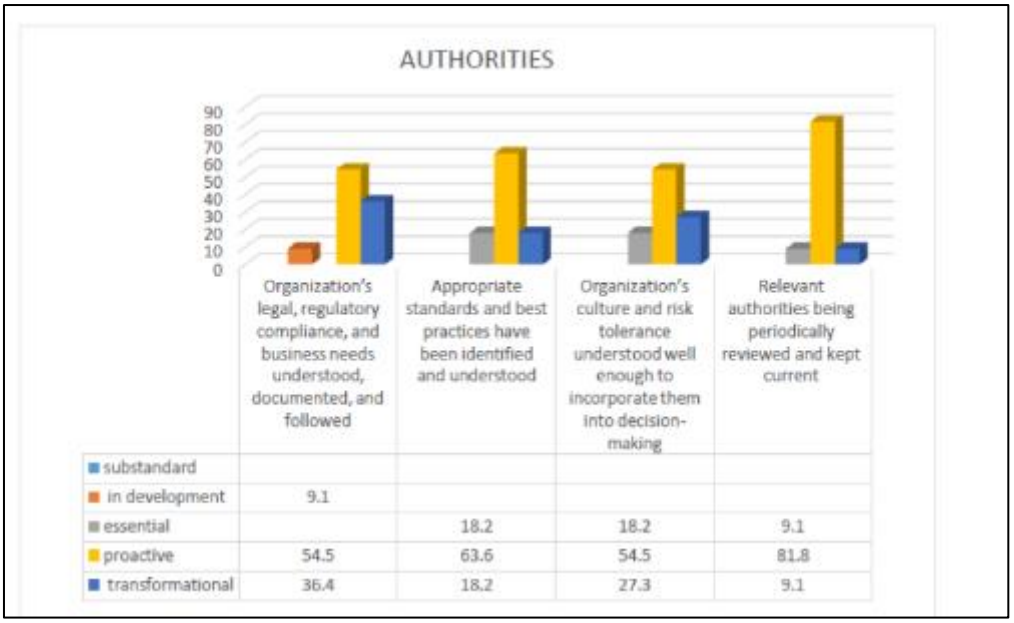


Figure 9 Percentage response on maturity level relating to 'authorities' as information governance principle

5.3. The impact of adoption of information governance principles and maturity level on performance of insurance companies in Nigeria

The third objective was to evaluate the impact of adoption of information governance principles and maturity level on performance of insurance companies in Nigeria. From the regression result, it was revealed that information governance principles and maturity level has a positive relationship with organizational performance. This implies that adoption of information governance principles and increase in maturity level will lead to an increase in organizational performance. The t value of 3.555 with its significance value 0.006 indicates that the study rejects the null hypothesis and accept the alternative hypothesis. This agrees with Iannarelli and O'Shaughnessy (2014) who asserted that ensuring that everyone in an organization understands what they are supposed to do with important information and how to do it can make the difference in protecting the company's vital interests. Also, de Abreu, Maçada and Kumar (2013) and Somers and Gupta (2013) reported that more than 70% of customers' switch is related to dissatisfaction with the quality of services offered in financial services which is attributed to lack of information governance. Furthermore, Lajara and Maçada (2013) reported that the characteristics of information governance have a greater impact firm value. The mean asset utilization ratio of 28 percent is an indication of effective utilization of information (as an asset) in the insurance company. Theoretically, efficient asset management practice (in this case information governance) and thus the production of value by the owners are identified by higher asset turnover, but less revenue to the asset ratio signals asset deployment for unproductive objectives.

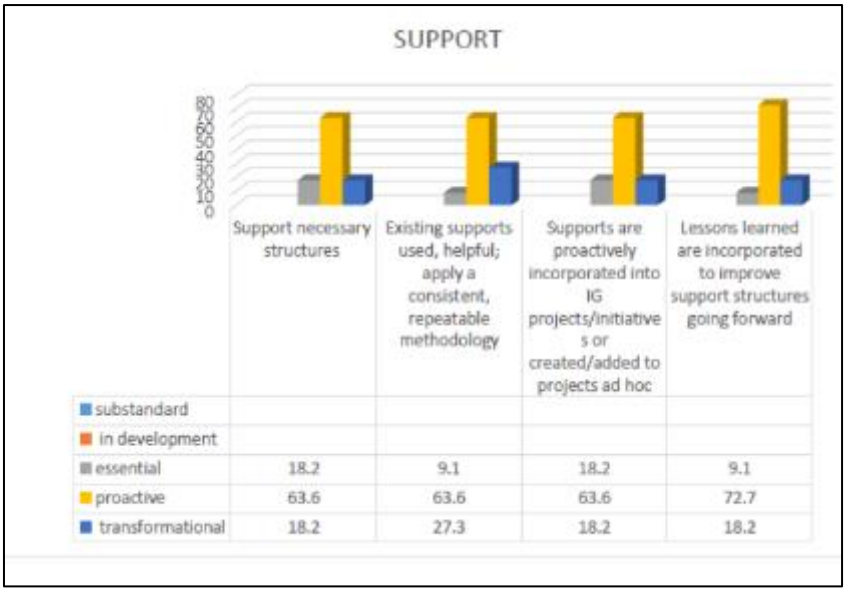


Figure 10 Percentage response on maturity level relating to having 'support' as information governance principle

6. Summary, Conclusion and Recommendations

6.1. Summary

This study examined the information governance and organizational performance in the insurance industry with specific reference to the composite insurance firms in Nigeria. The study was divided into five chapters. The first chapter was a general introduction of the constructs where the general problems of the topic were stated. Also, the objectives of the study (three in number), the hypotheses to be tested and the scope & the limitations were stated. In chapter two of the study, the conceptual and the empirical reviews of relevant literature on information governance and organizational performance were discussed to help to give a proper background of the subject matter. In addition, the theoretical background for the study was established. Chapter three entailed the method of collecting the necessary data through questionnaire that was used; the population of the study that comprises of the staff of the fourteen (14) composite insurance companies in Nigeria, while census sampling technique was adopted where the population served as sample size. In order to assess the maturity level of insurance companies regarding information governance, the study adopted a model known as ARMA IG Model. Using this model, items measuring the key areas of IG principles were adopted and tested and the regression analysis was used as tool for evaluating the impact of information governance on organizational performance. Chapter four gave a precise manner by which data collected using questionnaire as the instrument was analyzed and then used in achieving the set objectives. Finally, in chapter five the summary of findings was presented and the conclusion was stated leading to suggestions and recommendations based on the findings of the study.

6.2. Conclusion

The purpose of the study is to analyze the impact of information governance on organizational performance (measured using asset utilization ratio). The study probed into examining the extent of adoption as well as the maturity level of information governance basically in the insurance sector. Using the adopted ARMA information governance model, the study concludes that to a moderate or an average extent, the composite insurance companies in Nigeria have adopted the use of information governance and the maturity level as revealed in the study is the proactive maturity level, indicating that though the information governance best practices and standards are being incorporated, there are mechanisms in place for continuous improvement. The study, from the regression analysis, also concludes that information governance has significant impact on organizational performance.

6.3. Implication of the Study

The creation of information management (IG) has resulted from the recent inability by traditional records management, in addition to increasing regulations and compliance difficulties, to keep up with the expansion of data. Inaccurate information and completeness raise operational expenses while the administration of information monitors and guarantees compliance with the security of information. As a consequence, effective IG programmes, particularly in the

financial industry, are required to improve organizational performance and compliance while relying on information as an asset for maximizing its value and reducing costs.

ARMA's usage of the Information Governance Maturity Model (IGIM) in this study is an eye opener to the key areas where IG principles in the insurance sector needs to be worked on. The insurance companies, to be able to discharge their responsibility, has to adopt IG principles, monitor and review their processes in order to guarantee effective and efficient use of information assets. This is in line with the provisions and guidelines relating to corporate governance on composition of committee on risk management and other responsibilities by various bodies such as the Basel Committee on Banking Supervision, National Insurance Commission (NAICOM) and other regulatory bodies. Such responsibilities are not limited to evaluating strategic plan, significant management efforts, risk policy, financial projections, defining performance targets, monitoring implementation and firm profitability, and supervising large investments and transactions.

Furthermore, some of the policies by Basel Committee on Banking Supervision stating that the regulatory "walls" protecting insurance company assets should not be compromised.

From the findings, key recommendations are:

- In the insurance sector, as revealed by the study, most companies still have to review the state of their steering committee as it is a major factor controlling other key areas. It is not only enough to have a formal or informal group of individuals tasked with IG decision making, but also ensure that the relevant information stakeholders are represented in the group and has sufficient authority or influence to guide IG decision.
- Due to the global advancement of technology, relevant authorities are expected to be periodically reviewed and kept current. In view of this, trainings of information officers and administrators are key and not to be toiled with. Investing heavily in trainings, in line with human capital theory, should be considered to have a competitive advantage globally.
- Though there are existing supports which are helpful and are being consistently and repeatedly used in the industry over time, top management of organizations should ensure that lessons learned from trainings and consultations are incorporated to improve support structures going forward.
- It is not only enough to put in place defined policies and roles, implementation and compliance to IG principles needs constant evaluation. Going forward, insurance companies should devise metrics and benchmarks for IG programs and processes that can help to allocate and manage resources efficiently and effectively.
- Protecting information in its life cycle is a step to implementing IG compliance, however, following the complete stages of information lifecycle (from collection to removal) should be encouraged in order to be able to effectively address internal and external threats to information.
- Having the understanding that in the e-discovery process, IG is essential to allow for better search results on which to make business choices, it is therefore essential to have a consistent organization's taxonomy and metadata across system. This will ensure that completing records activities, filtering through and identifying responsive (relevant) material are done without much ambiguity.
- Given the increased threat of cybercrime and information trafficking to information systems in recent years, there is a need to beef up security measures in IG networks and other infrastructure. This can be accomplished by putting in place safeguards that prevent unauthorized access, manipulation, destruction, or diversion of information assets.

6.4. Recommendations for Further Studies

Due to the sample size used in the study, further research can be conducted using a larger sample (for example, in the banking industry which is carries a significant portion of the financial industry) in Nigeria. The study also recommends that a longitudinal approach for data collection is used to evaluate over a long period of time the impact that the adoption of information governance might have on organizational performance using other performance indicator.

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