THE IMPACT OF DATA QUALITY MANAGEMENT ON ACCOUNTING INFORMATION SYSTEM FOR BUSINESS AND DECISION MAKING.

ABSTRACT

The study examined ''the impact of data quality management on accounting information system for business and decision making''. To achieve the purpose of the study, the researcher formulated three (3) objectives of the study and three research questions and hypotheses respectively to guide the conduct of the study.The objectives include the following; to determine whether quality of data in the Accounting Information System conform to data quality dimensions and confirm whether implementation of data quality procedures lead to reduction in cost of operation among others. A target population of 50 respondents in Port Harcourt were studied as copies of the research questionnaires were distributed while 34 copies were retrieved. These constituted the data for analysis. The valid copies of the retrieved questionnaires were analyzed using mean and standard deviation while the Pearson's product-moment correlation was used to test the hypotheses at 0.05 level. The result of the analysis reveals among others that quality of data in the Accounting Information System of the companies conform with data quality dimension and this contribute to their improved performances and that there is significant relationship between effective data quality management and cost reduction. The study concludes among others that data quality management is imperative for the success of Accounting Information System as it ensure that quality data are provided for improved corporate performance and that it is relevant both in decisional and operational processes.The study recommends that data quality management should be an integral part of organizational database design process and that all the staff involved in creating and collecting data, designing and developing information system, managing data quality as well as those that use data in Accounting Information System should undergo training so as to update their knowledge of current tools and strategies that can be adopted to improve data quality.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Nowadays, globalization strategy is adopted by majority of companies around the globe. Information technology has a strong influence in all aspects of life, economy, and society (Thuan, 2019). Therefore, there is a need for these companies to further improve their flexibility, increase the quality of the product as well as achieve timeliness and cost effectiveness towards achieving business goal (Hunter & Long, 2003). Besides, the importance of information is vital for the sustainability of companies due to the rise of the knowledge-based economy (Guinea, Kelley, & Hunter, 2005). Business practices and strategy of companies has also been revolutionized by Information Technology (IT). Accountancy is important for organization because it directly influences decision making (Bergant, 2021). Thus, an effective Information System (IS), especially an AIS is crucial to meet the requirements of companies in this globalization era (Mitchell, Reid, & Smith, 2000). AIS is a system that can collect data, process procedures and further yield useful financial information for the users of financial statements in the decisions making process (Romney &Steinbart, 2015). It is an operating system that integrates the theory of IT and Accounting to help the company in managing and controlling business performance. AIS enables an organization to convert accounting data into information that is important to support decision making (Clearly, 2017). AIS aims to simplify and accelerate the data processing to produce relevant financial reports for managerial decision making (Rosa &Purfini, 2019). According to Kanakriyah (2016), AIS provides important information for all related parties within an organization. The implementation of AIS is vital for both small and larger enterprises to gather and process the information in a competitive environment (Louadi,

2009). Therefore, managers need to develop a strategy to improve their data processing capabilities by enhancing the quality of AIS to satisfy their demand for information (Ta & Nguyen, 2020). Accounting Information System (AIS) as a veritable tool in the hands of accountants has aided accounting practices in several ways. Managers and other financial experts are not left out in the use of AIS in the management of business of their organizations. AIS has changed the way of capturing, processing, storing and distributing of information in organizations. Any firm that wants to survive must base their decisions on the output of information from the Accounting Information System for rightful decision making. This is achieved by the level of AIS installed in such organization. There have been advancements in information technology, which have led to the introduction of varied accounting information systems in many organizations targeted towards helping organizations to produce relevant financial reports for both management and external users of accounting information and for decision making (Abiahu, 2017). Also Accounting Information System (AIS) is a program incorporated in the field of Information and Technology Systems and Accounting practice. It is designed to help link the management and control of the firm's economic activities as it regards to day to day running of the organization. This can only be done with the use of computers and computer capabilities and software in the performance of accounting functions in an organization. (Abiahu, 2014). Accounting is the language of business as it is the basic tool for recording, reporting and evaluating economic events and transactions that affect business enterprise. It is the process whereby all documents of a business financial performance from payroll, cost, capital expenditure and other obligations to sale revenue and owner's equity are evidenced to facilitate economic decisions. It provides financial information about one's business to the internal and external users of accounting information, such as managers, investors and

others. It is sometimes referred to as a means to an end, with the ending being the decision that helped by the availability of accounting information (Smith, 2015). Decision making is one of the most important activities in any company and cannot be overstressed by any economic enterprise or business concerns engaged in one dealing or the other irrespective of its business nature. It is the process to ensure that customers will pay for the products delivered or the services rendered in future without immediate financial backing (Nwaezeaku, 2007).

Data quality refers to the state of qualitative or quantitative pieces of information. There are many definitions of data quality, but data is generally considered high quality if it is "fit for its intended uses in operations, decision making and planning". Redman et al (2013); Fadahunsi et al (2019). Fadahunsi et al (2021). Moreover, data is deemed of high quality if it correctly represents the real-world construct to which it refers. Furthermore, apart from these definitions, as the number of data sources increases, the question of internal data consistency becomes significant, regardless of fitness for use for any particular external purpose. People's views on data quality can often be in disagreement, even when discussing the same set of data used for the same purpose. When this is the case, data governance is used to form agreed upon definitions and standards for data quality. In such cases, data cleansing, including standardization, may be required in order to ensure data quality.Smallwood (2014)

Defining data quality in a sentence is difficult due to themany contexts data are used in, as well as the varying perspectives among end users, producers, and custodians of dataFürber. (2015).Fürber (2015) also explained that from a consumer perspective, data quality includes the following:

- data that are fit for use by data consumers

- data meeting or exceeding consumer expectations
- data that satisfies the requirements of its intended use

From a business perspective, data quality is:

- data that are "'fit for use' in their intended operational, decision-making and other roles" or that exhibits "'conformance to standards' that have been set, so that fitness for use is achieved" Herzog et al (2007)

- data that "are fit for their intended uses in operations, decision making and planning Fleckenstein et al (2018)
- "the capability of data to satisfy the stated business, system, and technical requirements of an enterprise"Mahanti (2019).

From a standards-based perspective, data quality is:

- the "degree to which a set of inherent characteristics (quality dimensions) of an object (data) fulfills requirements"(ISO 2015).
- "the usefulness, accuracy, and correctness of data for its application"(NIST 2019).

Arguably, in all these cases, "data quality" is a comparison of the actual state of a particular set of data to a desired state, with the desired state being typically referred to as "fit for use," "to specification," "meeting consumer expectations," "free of defect," or "meeting requirements." These expectations, specifications, and requirements are usually defined by one or more individuals or groups, standards organizations, laws and regulations, business policies, or software development policies. Drilling down further, those expectations, specifications, and requirements are stated in terms of characteristics or dimensions of the data,Bian et al (2020) such as:

    - accessibility or availability
    - accuracy or correctness
- comparability
- completeness or comprehensiveness
- consistency, coherence, or clarity
- credibility, reliability, or reputation
- flexibility
- plausibility
- relevance, pertinence, or usefulness
- timeliness or latency
- uniqueness
- validity or reasonableness

A systematic scoping review of the literature suggests that data quality dimensions and methods with real world data are not consistent in the literature, and as a result quality assessments are challenging due to the complex and heterogeneous nature of these data.Bian et al (2020)

Data quality has become a veritable tool for information systems as the availability, accuracy, comparability, completeness or comprehensiveness, consistency, coherence, or clarity, readability, reliability or reputation, flexibility, plausibility, relevance, pertinence or usefulness, timeliness or latency, uniqueness and validity or reasonableness are variables that drive optimal decision making and performance in the business place. A dearth of quality data can only lead to death of an organization or business entity as the fast changing world will leave others behind. Information system are so vital today that firms that were doing so well yesterday are running

into bankruptcy due to lack of speed in their information generating models. Data needs are changing so fast that today's relevant data are running into obscurity before tomorrow. Having the data is not enough if the quality cannot be measured. The subject of this research is not only topical but timely as most businesses especially the SME's are running into extinction because of lack of quality data to aid decision making.

1.2 Statement of the Problem

Generally, the use of accounting information system has become critical factor in changing competitive environment of business. For the firms to effectively and efficiently manage their decision making process, a sound knowledge of the accounting information system that regulates the type of business activities of the organization needs to be understood by the staff of the organization in order to take a proper decision on the management of the firm. The major problems discovered from decisional management include the following; the storing and processing of information, retrieval of the information and disseminations of information to the users using AIS (Appelbaum et al, 2017) Another problem confronting the management of several organizations are to manage the accounting software that drives the facilities of the organization. This involves the identification of fundamental concept of accounting information system to be implemented by the firm, which can affect the company positively or negatively and therefore, there is a problem if a particular concepts of accounting information used by the firm affect the management decision negatively and this helps to recognize the reason for the negative effect, which can be as a result of adoption of wrong information or uncertified accountant giving wrong information to the company leading to wrong decision to the progress of the firm. Organizations need to take an approach which put such systems at the forefront, and consider both the system and the human related factors while managing their accounting

information systems. They must focus on critical factors if they are to attain high-quality accounting information. Failure to do so has negative impacts on the organizations' financial process. Poor information quality may have adverse effects on decision making (Huang, Lee and Wang 1999). This study discusses the data quality issues for accounting information systems' implementation, by analyzing systems, stakeholders' and organizational factors influencing accounting information quality. This study was conducted to close the gaps in the determinants of the quality of data management on AIS by recognizing the factors that will impede or affect output. There are plenty of studies in the area of AIS that have been carried out by scholars. However, different geographic locations posed different factors that might affect the determinants of quality in AIS. Thus, more researches on investigating the factors affecting the quality of AIS should be carried out to supplement the empirical evidence on this issue (Nguyen & Nguyen, 2020).

1.3 Objectives of the Study:

The main objective of this study is to examine the impact of data quality management on accounting information system for business and decision making. Other specific objectives of this study are:

1. To determine whether quality of data in the Accounting Information System conform to data quality dimensions

2.To confirm whether implementation of data quality procedures lead to reduction in cost of operation

3. To determine if application of data quality management tools significantly improve organizational performance

1.4 Research Questions

For the purposes of proper evaluating the impact of quality data management on accounting information system, the following research questions were formulated:

i. Does quality of data in the Accounting Information System conform to data quality dimensions?

ii. Does implementation of data quality procedures lead to reduction in cost of operation?

iii. Does application of data quality management tools significantly improve organizational performance?

1.5 Research Hypotheses

This research investigated the impact of quality data management on accounting information system.Accordingly, the following hypotheses relating to the objectives and research questions were tested:

Ho_1 Quality of data in the Accounting Information System does not conform to data quality dimensions:

Ho_2: Implementation of data quality procedures does not lead to reduction in cost of operation

Ho_3: Application of data quality management tools does not significantly improve organizational performance

1.6 Significance of the Study

This study will be of great interest to organizations in the public and private sectors as all organizations need quality data and good accounting information system to enable them take qualitative decisions. The study will also provide a platform for management of organizations to direct resources appropriately in order to maximize the use of quality data

management in its operations. The study is also expected to be of great value to academicians and practitioners in the field of accounting, information management, business studies, public administration and others as they interfere with issues of quality data management and information system. The study will also be useful to researchers for further studies.

1.7 Limitations of the Study

Time was indeed a great challenge, the researchers had only two months to conduct this study in the midst of a busy academic schedule. This was a short period to carry out a research of this magnitude, more could had been down if there were time available for the study.

Another constraint was finance. Research work needs a lot of money and considering the economic situation of the country, the researcher had to seriously manage the finance available towards completing this work. It was just a miracle for the researcher.

1.8 Definition of Terms

Accounting: Accounting are the basic rules, assumptions, and conditions that define the parameters and constraints within which the accounting operates**.** In other words, accounting concepts are the generally accepted accounting principles, which form the fundamental basis of preparation of universal form of financial statements consistently.

Data Quality: Data quality refers to the state of qualitative or quantitative pieces of information**.** There are many definitions of data quality, but data is generally considered high quality if it is "fit for [its] intended uses in operations, decision making and planning

Stakeholders: this is a person with an interest or concern in something, especially a business. denoting a type of organization or system in which all the members or participants are seen as having an interest in its success.

Information management: information management (IM) is the collection and management of information from one or more sources and the distribution of that information to one or more audiences. This sometimes involves those who have a stake in or a right to that information.

Managers: are persons responsible for controlling or administering an organization or group of staff**.**