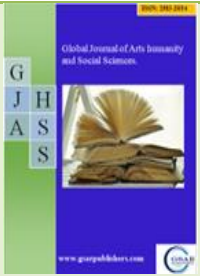
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ACCOUNTING INFORMATION SYSTEM AND MANAGEMENT PERFORMANCE OF PUBLIC HOSPITALS IN NIGERIA (A CASE OF THE UNIVERSITY COLLEGE HOSPITAL, IBADAN)

BY

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Abstract

This study investigated the effect of accounting information system and management performance of Nigeria Public Hospitals: a case study of University College Hospital, Ibadan. The research adopted survey descriptive design and used purposive sampling method. Out of the population of eighty (80) participants who are staff and management of University College Hospital, Ibadan sixty-seven (67) were sampled for the study. The study made use of descriptive analysis and inferential statistics where data from field survey were analyzed using simple percentage, mean and standard deviation. Hypothesis test was conducted using Chi-Square in Statistical Package for Social Sciences (SPSS v.23). The findings revealed that accounting information system has significant effect on performance management of public hospitals in Nigeria. The result also showed that accounting information has an impact on financial control of public hospitals in Nigeria; accounting information has a significant effect on planning and control of public hospitals in Nigeria; accounting information has a positive effect on resource waste reduction in public hospital in Nigeria, and that accounting information has a significant effect on value creation of public hospitals in Nigeria. The study recommended that public hospitals management should focus on computerized accounting information systems to keep up with the latest developments in the field of technology.

Keywords: Accounting information, financial control, Performance, Planning and control, Resource waste reduction, University College Hospital, Value creation

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1.0 Introduction

Globally, the need for accountability has increased especially for public sectors therefore this has been a tremendous concern to successive governments in Nigeria and the entire public about the sector performance, which according to Inyang, (2018) has been described as frustratingly poor over the years. Many opinions both fascinating and educative have been given adducing reasons for the poor performance, notably among these were lack of effective internal control system, low level of accountability, increasing cases of fraud, etc. Similarly, Isa, (2019) mentioned that the public sector in Nigeria has suffered setbacks which are largely attributed to ineffective and inefficient management and poor accounting practices. Explaining on the importance of performance, is

emphasized that management performance is a tool which focuses on managing the individual and work environment in such a manner that a sector/department or team can achieve set organizational goals. According to Ganyam and Ivungu (2019) there is therefore the need to pay greater attention to the improvement of public sector management through adopting contemporary accounting systems. The reason is obvious because government constitutes the largest single business entity and her pattern of expenditure through its various facilities, parastatals, agencies and commissions.

Conversely, accounting plays a vital role in the success or failure of contemporary public institutions. Accounting systems according to Finkler and Ward (2018) are responsible for recording, analyzing, monitoring and evaluating the financial condition of



business institutions, preparing documents necessary for tax purposes, providing information support to many other organizational functions. The public sector accountant has the responsibility of developing systematic arrangements to assist management in the performance of the services of the institution while the public sector auditor has among other duties, the complementary role to examine whether management actually performs that efficiently. On the other hand, the public sector auditor has to satisfy himself that the account presented has been prepared in accordance with statutory and constitutional requirements and regulation and that proper accounting practice has been observed in their compilation.

Evidently, the primary purpose of an accounting information system (AIS) is the collection and recording of data and information regarding events that have an economic impact upon organizations and the maintenance, processing and communication of such information to internal and external stakeholders for proper decision making. Al-Dalaïen and Khan (2018) emphasized that the growth of computer technology leads to increasing development in information storing and processing of financial report. Computer technologies increase the use of information due to its ability to analyze massive amount of data and also producing accurate and timely reports.

According to Onaolapo and Odetayo (2020), one of the effective ways to deal with public sector problems is to have effective government accountants and auditors who are not corrupt in the performance of their duties. As observed by Munaf, Faris, and Akbay (2019), government accounting officers are daily becoming inclined towards embezzling government fund in all sectors thus indicating a decline in accountability. Whereas Obasesin and Olaoye, 2019 opined that the basis of producing financial report in contemporary organization lies on accounting information system which automates accounting information. Information Technology is essential in contemporary, service quality and dynamic public sector environment with consideration of its impact on qualitative information systems.

Despite the amount of expenditure on public health by government budget, the Nigeria health sector is suffering from high costs of medical procedures in both public and private sector. This can be attributed to increasing demand from citizens on medical services which lead to increasing costs in order to provide the service at the desired quality. Howbeit in government owned facilities, there have been significant non-performances due to poor accounting information procedures. In the healthcare system, Ahmad and Al-Shbiel (2019) posited that the value of an accurate and efficient accounting system is demonstrated by its ability to aid all health facilities, by contributing to improving the quality of services, reducing costs and eliminating all resource-wasting activities; it also contributes to knowledge and experience which eventually leads to developing the healthcare system and increasing its competitive advantage through the system's ability to provide the right information at the right time. Against the backdrop, arose the need for this study. There are not many studies in this area as regards accounting information and performance of public

hospitals in Nigeria. Some of the studies reviewed dwelt on private sector area (Sajady Muchtar. 2018; Ovidia Josephine, 2019,

The general objective of this study is to examine the effect of accounting information system on management performance of Nigerian public hospitals: a case study of University College Hospital, Ibadan. Specifically, the study seeks to:

- i. Investigate the effect of accounting information system on financial control of public hospitals in Nigeria (a case study of University College Hospital, Ibadan).
- ii. Examine the effect of accounting information system on planning and control of public hospitals in Nigeria (a case study of University College Hospital, Ibadan).
- iii. Assess the effect of accounting information system on resource waste in public hospitals in Nigeria (a case study of University College Hospital, Ibadan).
- iv. Ascertain the effect of accounting system on value creation in public hospitals in Nigeria (a case study of University College Hospital, Ibadan).

Hypotheses

Some hypotheses were formed from these objectives to test the data generated through the questionnaire as listed below:

H₀₁: Accounting information system has no significant effect on financial control in public hospitals in Nigeria

H₀₂: Accounting information system has no significant effect on planning and control of public hospitals in Nigeria

H₀₃: Accounting information system has no significant effect on waste reduction in public hospitals in Nigeria

H₀₄: Accounting information system has no significant effect on value creation of public hospitals in Nigeria

2.0 Literature Review

Conceptual review

Performance management

Performance management is a new concept in human resource management. In Nigeria the performance of staff of executing agencies or public enterprises is limited to budget monitoring and annual performance evaluation. However, experts are of the view that there is no link between employee performance and financial data (Zager and Zager 2018). The concept of performance management was first used by Beer and Ruh (2018) and the concept was popularized in the mid-1980s (Urquía, Pérez, and Muñoz, 2021). Trabulsi, (2018) describe performance management "as a strategic and integrated approach to delivering sustained success to organizations by improving the performance of the people who work in them and by developing the capability of teams and individual contributors." Teru, Idoku and Ndeyati (2019) consider it as "a systematic and holistic (all-embracing) process of work planning, monitoring and measurement aimed at continuously improving the teams and individual employee's contribution to achievement of organizational goals". Padovani, Orelli, and Young (2020) defines performance management as "a means of getting better results from the organization, teams and individuals by understanding and managing performance within

agreed framework of planned goals, objectives and standards". The three definitions show that performance management has the following characteristics; strategic (concerned with the broader issues facing the business), systemic, systematic and holistic. It is integrated in four ways: vertically aligning business teams and individual objectives; functionally integrated; human resource integration and integration of individual needs.

To increase our understanding of performance management, we draw from the definition of the word performance by Pettersen and Nyland (2018) that: performance means both behavior and results. Behavior emanates from the performer and transforms performance from abstraction to action. As instruments for result, behaviors are also outcomes in their own right - the product of mental and physical efforts applied to tasks - and can be judged apart from results. The scope of performance is broader than performance appraisal. Performance appraisal according to Munaf, Faris, and Akbay (2019). "focuses on the extent to which an individual is carrying out assigned duties, as well as joint actions that can be taken by both the supervisor and the subordinate to manage observed variances between set standards and actual performance", while performance management deals with the processes and activities of the organization that enhance the design, development, implementation of performance technologies. It embraces all formal and informal methods adopted by an organization and its managers to increase commitment and individual and corporate effectiveness. Performance appraisal is reactive while performance management is proactive

Performance objectives

Performance objectives of each position are a joint responsibility of both the employee or role holder and the top management. Establishing standards of performance is not a new concept or process. Standards exist whether they are discussed or put in writing. The philosophy behind establishing performance standards is whether to accept or reflect the task/job performed by an employee. Manchilot (2019) defines objectives or goals (the terms are interchangeable) as "what organizations, functions, departments and individuals are expected to achieve over a period of time". Objectives could be in the form of targets (quantifiable result to be attained: return on investment, output, throughput, sales, service quality, customer satisfaction) and/or tasks/projects (to be completed by specified dates in the form of completion dates), etc. Objectives should be integrative. Good objectives have the following attributes: specificity/stretching, measurable, achievable, relevant and time framed (SMART).

Performance assessment

Performance measures are agreed when setting objectives. The crux of the matter is in knowing what to measure and how to measure it. Armstrong (2020) gives five guidelines and classification of performance measurement. These guidelines include: 1) Relating measurement to results and not effort. 2) The results must be within the job holder's control. 3) The measure should be objective and observable. 4) The data relating to the matter should be available. 5) Adopt existing measure where possible. The following performance indicators are commonly

used for performance assessment: 1) Finance (income, shareholder, economic value added etc). 2) Output (units produced or processed). 3) Impact (attainment of a standard, quality, level of service, etc). 4) Reaction (judgment by others, colleagues, internal and external customers). 5) Time (speed of respond or turn-around, achievements compare with time tables, amount of backlog, time to market, delivery time, etc.). According to Manchilot (2019) task level performance standards can be identity through scientific methods that involve administering a job/task analysis questionnaire to representative members of the organization. Performance is assessed at two levels - performance outcomes and behavior. It is the outcomes of individuals' or team's action or behavior.

Financial control

Every organization, profit or not-for-profit is confronted with performance problems. These problems must be fixed in order to achieve performance goals or objectives. Problems can be identified using strength, weakness, opportunity and threat (SWOT) analysis. Man chilot (2019) develop a model that can help performance managers select solutions for complex problems. The model is called Solution Variable Analysis Tool (SVAT) and Decision Variable Analysis Tool (DVAT). SVAT is designed to assist in root cause analysis, identifying and narrowing possible solutions for root cause and also discriminating between root causes and solutions. The SVAT and DVAT produce a set of intervention activities, technically called performance technologies. Secondly, the Human Performance Technology (HPT) Maturity Model can also be used in developing solution sets in the public sector business. HPT maturity model is a model that guides the progression of an organization. According to the International Society for Performance Improvement (ISPI, 2003), HPT refers to the systemic and systematic identification and removal of barriers to individual's commitment and organizational results. A maturity model is a structured collection of elements that describe the characteristics of effective processes at different stages of development. The concept of HPT maturity concept is strategically important to the public and private sectors. Khan (2019) asserts that it is the place to start when considering future growth and identifies necessary events and predictable transition challenges. HPT maturity model can be used at two levels of a public sector organization. First, lessons from the model can be useful for legislative or funding bodies, oversight agencies or high-level program managers. Secondly, the ideas can be used within an organization that has implemented HPT and wishes to understand more fully the decisions it will use in its performance improvement system. Pullen's HPT maturity model has a five-by-six grid with horizontal and vertical axes. The horizontal axis measures the progression of the organization along a scale of increasing levels of maturity that finally correspond to progression in development. They include: recognizing, understanding, managing, mastering and leading. The vertical axis has six vectors that comprehensively describe an organizational effort to implement HPT in the public sector. They include: accountability (policy, doctrine, and standards), directing (strategy, plans, and tactics), resources (organization, structure, and staff), method (methodology, process



and gaps), relationship (culture, clients, and partners), and results (outputs, outcomes and values).

Management Planning and Control

In this stage, managers use management accounting information for planning and control. Management accounting is seen as “management activity” but in a staff role. It involved staff support to line management through using such technologies as decision analysis and responsibility accounting (Ashton, Hoppers and Scapens, 2018). Management accounting was a means for preparing the budgets and analyzing deviations. Some other management accounting techniques in this stage are C.V.P (cost. volume. profit) analysis, budgeting (Abdel-Kader and Luther, 2018). Kister (2018) showed that information is used in estimating service costs, creating budgets and variance analysis in medical facilities. Abernethy and Stoelwinder (2018) examined the use of budgeting as a management control strategy, in relation to the goal orientation of nurse managers, in four large teaching hospitals. The goal orientations and use of budgeting by nurse managers is compared with those of physician managers and other sub-unit managers. The results indicate that nurse managers appear to be developing their goals of professionalization without a diminution of their organizational focus or their orientation towards providing a high standard of patient care. Cook (2018) argued that budgetary control is the core of accounting in the hospitals. It provides the basis of short term financial control, ad hoc investigations, and strategic planning over a longer term. However, when plans are drawn up for a three, five, or 10 year perspective then there is a further management accounting technique that is equally important: capital expenditure investment appraisal.

Reduction of Resource Waste

In this stage, increased competition was accompanied and underpinned by technological development which affected many aspects of the industrial sector. For example robotics and computer controlled processes improved the quality and reduced the costs (Ashton, Hoppers and Scapens, 2018). Management accounting was used as cost management means (Abdel-Kader and Luther, 2018). Among the popular techniques introduced during this stage were Just-In-Time (JIT) and linear programming. Some other management accounting techniques in this stage are ABC (activity based costing), ABB (activity based budgeting), zero-based budgeting, nonfinancial measures related to evaluate the employees and internal processes performance, quality costing (Abdel-Kader and Luther, 2018). Waters, Abdallah and Santillán (2021) concluded that applying Activity Based-Costing (ABC) in a developing country setting is feasible, yielding results that are directly applicable to pricing and management. ABC determines costs for individual clinics, departments and services according to the activities that originate these costs, showing where an organization spends its money. ABC also highlights areas in the health care process where efficiency improvements are possible. However, it is not implemented in hospitals. Dalabeeh and ALshbiel (2020) showed that there is not a significant role for accounting information in the reduction medical services waste at the hospital. There was not any correlation between each

component of accounting information systems (human resources, hardware and equipment, software, databases, and procedures) and the reduction of waste at the hospital.

Creation of Value

With increasing global competition after 1990s, managers seek to create value for their business. During this stage, companies faced major business uncertainty, technological innovations. Therefore, firms started implementing management accounting methods, which assess economic value. Management accounting shifted to the generation of value through the effective use of resources and elimination of nonvalue added activities. In this period, managers tried to identify factors of drivers that could potentially increase shareholder and customer value (Ashton, Hoppers and Scapens, 2018). Among the popular techniques introduced during this stage were Total Quality Management (TQM), Activity-Based Management (ABM), Benchmarking, Balance Score Card (BSC) and Reengineering. This stage is known as strategic management accounting. It is used at the most of strategic and long-term decisions such as investment decisions, performance evaluation (Parkash, 2018). Some other management accounting techniques in this stage are performance valuation based on nonfinancial measures related to customers, EVA (economic value added), Target costing, ABM (activity based management), benchmarking, analyzing the competitors’ weaknesses and competitive position, customer profitability analysis, value chain analysis, cost of capital and cash flow discounting methods (Abdel-Kader and Luther, 2020). Jacobs (2019) over the last ten years or so, many countries have undertaken public sector reforms. As a result, accounting plays a more important role. However, many studies have only discussed the reforms at a conceptual level (not practice level). One of these reforms is related to accounting and to implement its techniques in health care context (especially in the hospitals). Jones (2018) minimal knowledge of actual operational costs and inaccurate charge accounting systems, may lead hospital managers to misinterpret the potential net long-term effects of their quality improvement efforts. Pettersen and Nyland (2018) found that accounting information was not perceived by clinicians as important decision tools at the clinical levels in the hospital. Lapsley (2021) documented the failure of accounting information to create the value because of little familiarity of hospitals managers and doctors

Accounting information system

Accounting information system (AIS) is a system of collecting, storing and processing financial and accounting data that are used by decision makers by management or externally by other interested parties including investors, creditors and tax authorities (Manaye, 2018). AIS’s definition is ‘a system that processes data and transactions to provide users with information. They need to plan, control and operate their businesses. According to Lallo and Selamat (2019), they define AIS as ‘a system that processes data and transactions to provide users with information. They need to plan, control and operate their businesses’. Here, AIS is viewed as a system that helps management in planning and controlling processes by providing relevant and reliable information for

decision making. It suggests that AIS's functions are not solely for the purpose of producing financial reports. Its role goes beyond this traditional perspective. AIS should be utilized to include planning and managing business activities. It could also be used as a controlling mechanism such as budgeting. Therefore, full adoption of the system is essential to fully attain the system's benefits. AIS are critical to the production of quality accounting information provide accurate and timely reports and the communication of that information to the decision makers (Harash, 2018).

AIS is vital to all organizations, designed to help in the management and collect information, raw data or ordinary data and transform them into financial data for the purpose of reporting them to decision makers and control of topics related to organization (Dandago and Rufai, 2019). AIS is system used to collection and recording of data and information regarding events that have an economic impact upon organizations and the maintenance, processing and communication of such information to both internal and external stakeholders. AIS are also systems used to provide internal and external reporting data, financial statements and trend analysis capabilities to affect an organizational performance (Fagbemi & Olaoye, 2018).

Operational cost

An accounting information system (AIS) according to Thompson et al. (2019) is a structure that a business uses to collect, store, manage, process, retrieve and report its financial data so it can be used by accountants, consultants, business analysts, managers, chief financial officers (CFOs), auditors, regulators and tax agencies. Specially trained accountants work in-depth with AIS to ensure the highest level of accuracy in a company's financial transactions and record-keeping, as well as make financial data easily available to those who legitimately need access to it — all while keeping data intact and secure. Accounting information systems generally consist of six primary components: people, procedures and instructions, data, software, information technology infrastructure, and information systems.

Budgeting

For hospital management purposes, as part of the decision making process, the managers expect different information within various time horizons. This entails a different way of selecting accounting tools and techniques (Kister, 2018).

The international federation of accountants (IFAC) issued a statement concerning on understanding of the scope and purposes of management accounting. IFAC identifies 4 stages of using the management accounting based on emerging of management accounting techniques. This study uses the following classification and their techniques for identifying accounting evolution stage in hospitals. This study is designed to provide insights into using accounting information in managerial decision making in hospitals. For this purpose, using accounting techniques by managers is investigated.

Cost Determination and Financial Control

Before 1960s, accounting information was used to determine the product cost. Management was concerned with internal matters

such as production capacity. They only use accounting for calculating cost production (Ashton, Hoppers and Scapens, 2018). In this period, costing methods was created and used. Management accounting was seen as a "technical activity" for the pursuit of organizational goals and was not used to make decisions. It only was a calculating means. There was not an independent system for management accounting and managers used information such as cost, comparison items and financial ratios which were outputs of bookkeeping. Financial measures were used in evaluating the performance and investment projects (Abdel-Kader and Luther, 2018). Padovani, Orelli and young (2020) showed that accounting systems is a more vital part of the hospitals' management control system and cost management objectives.

The Public Sector

Accounting Information Systems have been widely adopted by organizations within both the public and private sector (Rom and Rohde, 2019). Accounting information systems is defined as systems that operate functions of data gathering, processing, categorizing and reporting financial events with the aim of providing relevant information for the purpose of store keeping, attention directing and decision making (Boockhodt, 2019). Accounting information system is a specialized subsystem of the information system that collects, processes, and reports information related to the financial aspects of business events (Ulrich, and GeLinias, 2018). Accounting information system is a computer-based system that increases the control and enhances the corporation inside the organization (Essex and Magal; 2019). Accounting Information Systems maintain and produce the data used by organizations to plan, evaluate, and diagnose the dynamics of operations and financial circumstances (Anthony et al cited in Xu, and Al-Hakim, 2020). An accounting information system (AIS) is a system that first collects and stores data and then processes it into information used by decision makers (investors, creditors, and managers).

Theoretical Review

Agency Theory

The agency theory was championed by Jensen and Meckling in 1976. The agency theory describes the owners' (principals') delegated authority to manager (the agent) to run the firm on his or her behalf with the owners' welfare depending on the manager accordingly (Jensen and Meckling, 1976). The origin of Agency theory dates back to the works of Stephen Ross in 1976 and with Barry Mitnick in 1976 as the originators (Mitnick, 1976). Ross is responsible for the origin of the economic theory of agency, and Mitnick for the institutional theory of agency, though the basic concepts underlying these approaches are similar. However Mitnick and Ross while postulating the agency theory in their seminal paper and thesis did not popularize it. The application of agency theory in the business and institutional setting was done and popularized by Jensen and Mecklings (1976) and consequently were given credence for the introduction of Agency theory in the business world as noted by Mitnick (1976), sometimes Jensen and Meckling (1976) is cited as the originators of Agency theory,

although what they originated was an influential application to the theory of the firm, not the agency approach itself.

The agency theory seeks to address the potential conflict of interests between owners and managers, because the interests of managers may opportunistically utilize firm resources to satisfy their personal interests (Brammer and Millington, 2020). Basically, firms aim to maximize the wealth of shareholders, and it might be different with personal interest of managers. The agent (managers) might have more relevant information compared with shareholders, the information asymmetry occurs, and this would rise the possibilities that agent can behave in ways to pursue their own interests.

2.4 Empirical Review

Accounting information system and Management performance

The complexity of today's health care system has brought with it a need for all managers to have an understanding from accounting and financial management (Finkler and Ward, 2018). Public health care systems can be improved by an appropriate accounting system (Padovani, Orelli and young, 2020). Appropriate information helps managers understanding their tasks and reducing uncertainty before decision making. . Hospitals are complex and decoupled organizations (Pettersen and Nyland, 2018). Hospitals should maintain an accounting system to provide information for internal management purposes. The hospital's accounting system provides the financial and nonfinancial information necessary for department heads to plan and run their departments. Thus, the department heads of nursing, medical records, laboratory, etc., are responsible for the financial integrity of their own departments. As a set of managerial tools to fix responsibility at the department level, managerial accounting system must be maintained (Thompson et al. 2019).

Evidently, decision making process requires information. Accounting provides important information for decision making. Accounting can be divided into financial accounting and management accounting. Financial accounting relates on reporting a firm's financial information to external users and management accounting relates on measuring, analyzing and reporting for internal using by management. Management accounting provides financial and non-financial information to make managerial decisions (Zager and Zager, 2018).

According to the Institute of Management Accountants (2012): "Management accounting involves in management decision making, planning, performance, evaluating and formulating and implementing the firm's strategy". Thus, accounting is a service function to manager (Zager and Zager, 2018). Accounting information is necessary to understand financial situation of the firm and used as the basis of decision making (Hall 2018). Firms often use accounting information to support the management decisions. A successful manager needs a lot of reliable information in order to be able to make appropriate decisions. Therefore, accounting information is vital in managing a firm and implementing an internal control system. Accounting information is considered as a subsystem of management information. It is a

food for management planning and decision making. Effective and efficient information plays a central role in management decision making (Siyanbola, 2022). Management needs good quality information. An efficient system is able to aid all organizations, by contributing to improving the services quality, reducing costs and eliminating all resource-wasting activities; it assists to knowledge and experience which results in developing the firm and increasing its competitive advantage through providing information on time (Holtzman 2019).

Accounting information system and Financial Control of public hospitals

Onalapo and Odetayo (2018) found that Accounting Information System (AIS) enhance organizational performance especially in global technology advancement, agree with Patel (2018), who detect the importance of accounting information systems, that helps in facilitating decision making and amend organization's environment, structure and requirements of task, furthermore, emphasizes accounting information plays an necessary role in decision making process related to the financial and economic issues such as cost accounting system, management accounting system, price and profitability which provide the useful information to the manager to make the financial and economic decisions, also they a certain that (AIS) played a significant role in survival of organization. Tan (2018), test the impact of AIS on internal auditors in Turkey, he revealed the importance role of accounting information systems in companies through enable all levels of management to access comprehensive information that goes into the planning and controlling of activities within business organizations. In addition, AIS provide high quality of information to internal and external users and typically cover six main aspects: people, procedures, data, software, information technology infrastructure and internal controls. Hla and Teru (2018), examined the efficiency of accounting information system and performance measures – literature review.

The main objectives of many businesses to adopt this system are to improve their business efficiency and increase competitiveness. The qualitative characteristic of any Accounting Information System can be maintained if there is a sound internal control system. Internal control is run to ensure the achievement of operational goals and performance. Therefore the purpose of this study is to examine the efficiency of Accounting Information System on performance measures using the secondary data in which it was found that accounting information system is of great importance to both businesses and organization in which it helps in facilitating management decision making, internal controls ,quality of the financial report ,and it facilitates the company's transaction and it also plays an important role in economic system, and the study recommends that businesses, firms and organization should adopt the use of AIS because adequate accounting information is essential for every effective decision making process and adequate information is possible if accounting information systems are run efficiently also, efficient Accounting Information Systems ensures that all levels of management get sufficient, adequate, relevant and

true information for planning and controlling activities of the business organization.

Serem (2018), did a study on the relationship between internal management controls and efficiency of service delivery in organization in Kenya. This study adopted descriptive survey research design to carry out an investigation and a survey of 42 organization in Kenya were surveyed. Data were analyzed using descriptive statistics. The study revealed that there is a significant relationship between controls, monitoring and evaluation and service delivery by the organizations. The study concludes that internal management control is a critical system to efficiency of service delivery of organizations in Kenya. The internal management control system is a tool which can enhance an effective and efficient service delivery mechanism in organizations.

Accounting information system and Planning and Control of public hospitals

Olaofe, Akanni, Ekundayo, Ajibola and Ajibola (2020) examined accounting information system on performance of corporate organizations in Nigeria. The role of professionals in accounting, information technology and academics were explored. To attain the aim of the study, 30 questionnaires were administered and 25 retrieved which was analyzed and the single factor ANOVA technique was used to test the hypothesis. Findings from the research depicted accounting information systems have a positive impact on corporate organizations performance in Nigeria because the observed F of 251.43 obtained was greater than F critical value of 2.74. As recommended, corporate organizations should massively invest in accounting information system, adopt merit-based recruitment and ensure periodic training of accounting information systems personnel. Abdallah, (2018) and Adrian-Cosmin (2018) test the impact of the accounting information systems on the quality of financial statements. They found there is a strong effect of using the accounting information systems on the quality of financial statements.

Accordingly, the researchers have found a fair number of studies in both Arab and foreign environments on accounting information systems' components and their role in reducing costs at service facilities. The significance of accounting information systems is illustrated by their role in reducing costs and increasing the speed of medical services provision; many researchers have highlighted the significance of reducing costs generally related to service provision across all service sectors, with a particular emphasis on the health sector. Accounting systems generate accounting information that help rationalize and support economic decisions which affect the resources of communities and consequently the well-being of community members (Kahaleh, Hanan, 2019). The accounting system is strongly connected with various administrative processes; it helps rationalize decisions, makes the administrative process more effective in satisfying the needs of the organization's management and raises the levels of performance in order to realize goals.

Esmeray (2018) asserted that the value of an accurate and efficient accounting information in healthcare system is demonstrated by its ability to aid all organizations, by contributing to improving the quality of services, reducing costs and eliminating all resource-wasting activities; it also contributes to knowledge and experience which eventually leads to developing the organization and increasing its competitive advantage through the system's ability to provide the right information at the right time.

Also, (Rehab, 2018). Affirmed that the main function of AIS is to assign quantitative value of the past, present and future business events (Rehab, 2018). Accounting information, in the form of periodic reports or special analyses, is often a source of information for making decisions. These decisions may include pricing, production levels and product mix, outsourcing, inventory policy, customer servicing, labour negotiations, and capital investments. Accounting information systems play an important role in the implementation of the managerial functions of the organization such as planning and control (Samer, 2018). In the planning function, AIS provide data relating to study and analyze the goals set for the organization. It also provides information regarding the relationship between cost, volume and profit required to determine the amount of interdependence and interaction between them. AIS under the planning function also helps in preparing lists of future needs and financial flows and planning of budgets for the development of quantitative criteria and converting them into financial standards to reflect the different aspects an organization's activities and presentation of the detailed plans and policies of the work and coordination across different departments.

On the other hand, in the control function, it requires a clear and specific plan that shows the desired objectives and defines the foundations on which results are evaluated and analyzed in order to correct distractions. This function is regarded as a practical test of decision making and implementation, follow up the actual implementation in accordance with the plans, policies and standards established, the discovery of deviations and correct them, provide reasons to protect the property of the shareholders and the preservation of their interests, resource development and follow up the activity of the organization, and to achieve the desired goals, thus ensuring the effectiveness of the organization (Onaolapo and Odetayo, 2020). Computerized accounting tools as integral part of AIS are directly related to the economic and financial results of firms (Urquía, Pérez, and Muñoz, 2021). Advantages of an optimal use of AIS in an organization might include: Better adaptation to a changing environment, better management of internal business transactions and a high degree of competitiveness. There is also a boost to the dynamic nature of firms with a greater flow of information between different staff levels and the possibility of new business on the network and improved external relationships for the organization, mainly with foreign customers accessed through the firm's web.

Accounting information system and Resource waste reduction of public hospitals

Mwazo, Weda, Omondi, and Njenga, (2019), investigated the role of information systems on the service delivery of the Taita-Taveta

National Treasury in Kenya. This study adopted the use of questionnaires and multiple regression for data collection and analysis respectively. The study revealed that risk management systems and communication systems greatly influence service delivery at the National Treasury. All these studies as reviewed have one thing in common: internal audit functions and controls help in ensuring adequate utilization of the resources at the disposal of the organization. It is particularly important when it comes to Nigerian public sector as there usually low control as well as corruption that usually plaque the organization. In view of this, effective internal auditing activities will not only enhance performance, but will lead to high rate of service delivery to the stake holders of the public sector organizations.

Akanbi and Aruwaii (2018) also examined the impact of accounting information systems (AIS) adoption by manufacturing industries on their general accounting activities and also to estimate the relationship that exist between AIS devices and accounting activities. Regression and correlation analyses were used to analyse and interpret the objectives. The regression model results that F-value ($0.000 < 0.050$) and Adj R2 = 0.6970 showed that AIS devices has 68.70% impact on the efficiency of accounting activities in the manufacturing industries if properly implemented. The result of Kendall's correlation matrix showed the statistical coefficient of 62% indicating that there is a strong correlation between dependent and independent variables, the coefficient of determination (R^2) = 0.418 revealed that there is a significant relationship in using accounting information system to fast track accounting activities. The tested hypotheses of this study were measured at level of 95% confidence interval. The study concluded that accounting information systems devices are spontaneously and simultaneously appropriate for manufacturing industries engaging in accounting activities, also revealed that there is a significant relationship between accounting activities and accounting information systems. The study also concludes that accounting information systems adoption in manufacturing firms has the following benefits: facilitation of financial statements preparation, enhancement of inventory valuations, enhancement of budgetary management, and favoring General Accepted Accounting Principles adoption. Therefore, manufacturing firms should embrace more and well-structured accounting information systems to enhance accounting activities.

Rauplice and Staerngis (2018) reached to a developed model to assess the effectiveness of accounting information systems that characterized with openness and clarity of the determinants and can be used in all stages of the system's life cycle (choiceapplication-exploitation) and evaluate mixed indicators (quantity-quality) of the accounting systems' effectiveness. Salehi and Abdoreza (2021) reviewed barriers in implementation by postulating six hypotheses of accounting information system (middle managers, human resources, organizational structure, environmental factors, financial issues and organizational culture) in companies listed on Tehran Stock Exchange. Finally, some results were obtained in this manner: barrier of organizational structure with 26 percent, middle managers with 26 percent, human resources with 25 percent,

environmental factors with 21 percent, organizational culture with 19 percent and finally financial issues with 16 percent were identified as barriers factors influencing on the establishment of accounting information systems in listed companies on Tehran Stock Exchange.

Accounting information system and Value creation

Grande et al. (2021) research provided value added in accounting literature given the scarcity of works dealing with the relationship between the application and use of AIS and performance and productivity indicators in SMEs in Spain. Banker et al. (2019), in their study, Impact of Information Technology on Public Accounting Firm Productivity, focused on five offices of an international public accounting firm that recently made large IT investments, primarily in audit software and knowledge-sharing applications. Both qualitative and quantitative information from the research site are analyzed to estimate the change in productivity following the implementation of IT. The results from both regression analysis and Data Envelopment Analysis (DEA) indicate significant productivity gains following IT implementation, documenting the value impact of IT in a public accounting firm. Naranjo-Gil (2019) examined the effect of accounting information system design on the performance of organizations pursuing different strategic priorities.

The results provide support of an indirect effect of sophisticated accounting information system on performance, acting through a prospector strategy. Sajady et al. (2018) evaluated the effectiveness of accounting information systems of finance managers of listed companies at Tehran stock exchange. The results indicate that implementation of accounting information systems at these companies caused the improvement of managers' decision-making process, internal controls and the quality of the financial reports and facilitated the process of the company's transactions. The results did not show any indication that performance evaluation process had been improved.

Ismail and King (2020) focused on measuring the alignment of Accounting Information Systems (AIS) requirements with AIS capacity and then investigating whether this AIS alignment is linked to firm performance. The results indicated that a significant proportion of Malaysian SMEs had achieved high AIS alignment. Furthermore, the group of SMEs with high AIS alignment had achieved better organizational performance than firms with low AIS alignment. The findings provided evidence of the importance of AIS alignment and deepened current understanding of the requirements for accounting information and the use of IT as an important information processing mechanism. More importantly, it opens up possibilities for further study of AIS alignment in SMEs, both in Malaysia and on a global basis.

3.0 Methodology

RESEARCH DESIGN

In this study, the researcher employed the survey research design. This is due to the nature of the study whereby the opinion and views of people are sampled. According to Singleton and Straits, (2019), Survey research can use quantitative research strategies

(e.g., using questionnaires with numerically rated items), qualitative research strategies (e.g. using open-ended questions), or both strategies (i.e., mixed methods).

POPULATION OF THE STUDY

The broad objective of this study is focused on the effect of accounting information system on management performance of Nigeria public hospitals in Nigeria: a case of university college hospital, Ibadan. Thus, eighty (80) staff and management of University College Hospital, Ibadan, Oyo State form the population of the study. 5 members of the management staff, 30 members of staff at Level 14 cadre, 25 members of staff at Level 10-12 cadre, and 20 members of staff at Level 8 cadre.

Sample and Sampling technique

A study sample is simply a systematic selected part of a population that infers its result on the population. In essence, it is that part of a whole that represents the whole and its members share characteristics in like similitude (Udoyen, 2019). In this study, the researcher adopted the simple random sampling method to determine the sample size. According to Torty (2021), a sample of simple random sampling is the terminology used to describe a sample in which elements have been selected from the target population on the basis of their accessibility or convenience to the researcher.

Using Taro Yamane 1967, the sample is determined as follows:

$$n = P/1+(P*e^2)$$

n = sample size

P = population

E = significance level

$$n = 80/(1+(80*0.05^2)) = 80/1+(80*0.0025) = 80/(1+0.2) = 80/1.2 = 66.67$$

n = approximately 67

RESEARCH INSTRUMENT AND ADMINISTRATION

The research instrument used in this study is the questionnaire. A survey containing series of questions was administered to the enrolled participants. The questionnaire was divided into two sections, the first section inquired about the demography or personal data while the second section was in line with the study objectives, aimed at providing answers to the research questions. Participants were required to respond by placing a tick at the appropriate column. The questionnaire was personally administered by the researcher using likert scale.

METHOD OF DATA COLLECTION

The major instrument used in the data collection was the questionnaire prepared and administered to the staff of University College Hospital, Ibadan, Oyo State. The questionnaire was administered to the relevant staff cadre involved in accounting activities.

METHOD OF DATA ANALYSIS

The responses from the field survey were analyzed using simple percentage, mean and standard deviation which provided answers to the research questions. In analyzing data collected, mean score

was used to achieve this. Hypotheses were tested using Statistical Package for Social Sciences (SPSS).

VALIDITY OF THE INSTRUMENT

Validity referred here is the degree or extent to which an instrument actually measures what is intended to measure. An instrument is valid to the extent that is tailored to achieve the research objectives. The researcher constructed the questionnaire for the study and submitted to the project supervisor who used his intellectual knowledge to critically, analytically and logically examine the instrument's relevance of the contents and statements and then made the instrument valid for the study.

RELIABILITY OF THE INSTRUMENT

The reliability of the research instrument was also determined. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value was determined to indicate that the research instrument was relatively reliable. According to (Taber, 2019) the range of a reasonable reliability is between 0.67 and 0.87.

PILOT STUDY

Some questionnaire (15) were administered to some staff of UCH who were not part of the sample used for the study. This was done to obtain understanding of the questions used for the study. This helped to make necessary corrections to the final questionnaire used for the study.

MODEL SPECIFICATION

$$Y = f(X)$$

Y = dependent variable

X = independent variable

$$Y = y_1, y_2, y_3, y_4$$

$$X = x_1, x_2, x_3$$

Where,

y₁ = financial control

y₂ = planning and control

y₃ = wasteful reduction

y₄ = value creation

x₁ = cost accounting information

x₂ = budgeting information

x₃ = operational information

Thus,

That is,

$$y_1 = f(x_1, x_2, x_3)$$

$$y_2 = f(x_1, x_2, x_3)$$

$$y_3 = f(x_1, x_2, x_3)$$

$$y_4 = f(x_1, x_2, x_3)$$

Measures of the effect of accounting information on financial control of public hospitals management performance

y₁ = financial control

y₂ = planning and control

y₃ = wasteful reduction

Y₄ = value creation



Measures of the effect of accounting information system on planning and control of public hospitals accounting

x_1 = cost accounting information

x_2 = budgeting information

x_3 = operational information

Functional relationships

$$y_1 = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \mu \dots \dots \dots \text{Model 1}$$

$$y_2 = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \mu \dots \dots \dots \text{Model 2}$$

$$y_3 = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \mu \dots \dots \dots \text{Model 3}$$

$$y_4 = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \mu \dots \dots \dots \text{Model 4}$$

β_0 – Beta coefficient

μ - error term

$$\text{Financial control} = \beta_0 + \beta_1 \text{cost accounting information} + \beta_2 \text{budgeting information} + \beta_3 \text{operational information} \dots \dots \dots \text{Model 1}$$

$$\text{Planning and control} = \beta_0 + \beta_1 \text{cost accounting information} + \beta_2 \text{budgeting information} + \beta_3 \text{operational information} \dots \dots \dots \text{Model 2}$$

$$\text{Wasteful reduction} = \beta_0 + \beta_1 \text{cost accounting information} + \beta_2 \text{budgeting information} + \beta_3 \text{operational information} \dots \dots \dots \text{Model 3}$$

$$\text{Value creation} = \beta_0 + \beta_1 \text{cost accounting information} + \beta_2 \text{budgeting information} + \beta_3 \text{operational information} \dots \dots \dots \text{Model 4}$$

4.0 Results and Findings

Table 1 Gender Distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	42	54.5	54.5	54.5
Female	25	45.5	45.5	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

The table above revealed that Male Respondents are (42, 54.5%), Female Respondents (25, 45.5%). This indicates that both male respondents and female respondents are more involved in the research work considering the same number of observations share among them.

Table 2 Age distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 25-30	13	19.5	19.5	19.5
31-35	16	24.7	24.7	44.2
36-40	20	29.8	29.8	74.0

41 and above	18	26.0	26.0	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

The table above revealed the age distribution involved in the research work; 25-30 years (13, 19.5%), 31-35 years (16, 24.7%), 36-40 years (20, 29.8%), 40years and above (18, 26.0%). This shows that the ages involved in this research are mostly adults with massive responses from them.

Table 3 Marital Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	25	39.0	39.0	39.0
Married	39	57.1	57.1	96.1
Widowed	3	3.9	3.9	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

The table 3 revealed the status of Marriage of Respondents in the research; Single (25, 39.0%), Married (39, 57.1%), Widowed(3, 3.9%). This serves as an indication that most respondents that participated in this research are married.

Table 4 - Level of Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid B.Sc.	41	66.2	66.2	66.2
M.Sc.	11	14.3	14.3	80.5
MBA	15	19.5	19.5	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

The table shows the education status of the respondents; B.Sc. (41, 66.2%), M.Sc. (11, 14.3%), MBA (15, 19.5%). This actually revealed that B.Sc. respondents are most in the work.

Analysis of Data

Question 1: Do hospital managers use accounting information to determine cost and financial control?

Table 5 Cost of different services is calculated in our hospital

	Frequency	Percent	Valid Percent	Cumulative Percent



Valid	Strongly Agree	25	39.0	39.0	39.0
	Agree	19	28.6	28.6	67.5
	Disagree	13	19.5	19.5	87.0
	Strongly Disagree	10	13.0	13.0	100.0
	Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Staff's awareness if Cost of different services is calculated in the hospital. The table revealed that (25, 39.0%) Strongly Agree, (19, 28.6) Agree, (13, 19.5%) Disagree and (10, 13.0%) Strongly Disagree. This indicates that respondents Strongly agree that cost of different services is calculated in the hospital.

Table 6 Plant-wide overhead rate is used for calculation of services costs

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	25	37.3	37.3
	Agree	19	28.4	65.7
	Disagree	15	22.4	88.1
	Strongly Disagree	8	11.9	100.0
	Total	67	100.0	100.0

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness on Plant-wide overhead rate is used for calculating of services costs. The table revealed that (25, 37.3%) Strongly Agree, (19, 28.4) Agree, (15, 22.4%) Disagree and (8, 11.9%) Strongly Disagree. This indicates that respondents strongly agree that Plant-wide overhead rate is used for calculation of services costs.

Table 7 Performance evaluation is based on financial measures

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	22	32.8	32.8
	Agree	18	26.9	59.7
	Disagree	12	17.9	77.6

Valid	Strongly Disagree	15	22.4	22.4	100.0
	Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Performance evaluation is based on financial measures. The table revealed that (22, 32.8%) Strongly Agree, (18, 26.9%) Agree, (12, 17.9%) Disagree and (15, 22.4%) Strongly Disagree. This indicates that respondents strongly agree that performance evaluation is based on financial measures.

Table 8 Investment projects (fixed assets acquisition projects) is evaluated based on accounting rate of return or payback period

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	13	19.4	19.4
	Agree	25	37.3	56.7
	Disagree	18	26.9	83.6
	Strongly Disagree	11	16.4	100.0
	Total	67	100.0	100.0

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Investment projects (fixed assets acquisition projects) is evaluated based on accounting rate of return or payback period. The table revealed that (13, 19.4%) Strongly Agree, (25, 37.3%) Agree, (18, 26.9%) Disagree and (11, 16.4%) Strongly Disagree. This indicates that respondents agree that Investment projects (fixed assets acquisition projects) is evaluated based on accounting rate of return or payback period.

Question 2: Do hospital managers use accounting information in planning and control?

Table 9 Budgets for revenues are prepared

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	20	29.9	29.9
	Agree	25	37.3	67.2
	Disagree	13	19.4	86.6
	Strongly Disagree	9	13.4	100.0



Total	67	100.0	100.0
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Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Budgets for revenues are prepared. The table revealed that (20, 29.9%) Strongly Agree, (25, 37.3%) Agree, (13, 19.4%) Disagree and (9, 13.4%) Strongly Disagree. This indicates that respondents agree that Budgets for revenues are prepared.

Table 10 Budgets for expenses are prepared

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	15	22.4	22.4	22.4
Agree	25	37.3	37.3	59.7
Valid Disagree	18	26.9	26.9	86.6
Strongly Disagree	9	13.4	13.4	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

The table revealed that (15, 22.4%) Strongly Agree, (25, 37.3%) Agree, (18, 26.9%) Disagree and (9, 13.4%) Strongly Disagree. This indicates that respondents agree that Budgets for revenues are prepared.

Table 11 Cash budgets are prepared

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	14	20.9	20.9	20.9
Agree	25	37.3	37.3	58.2
Valid Disagree	18	26.9	26.9	85.1
Strongly Disagree	10	14.9	14.9	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Cash budgets are prepared. The table revealed that (14, 20.9%) Strongly Agree, (25, 37.3%) Agree, (18, 26.9%) Disagree and (10, 14.9%) Strongly Disagree. This indicates that respondents agree that Cash budgets are prepared.

Table 12 - Overhead deviations are calculated coupled with fixed costs separated from variable cost

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	18	26.9	26.9	26.9
Agree	21	31.3	31.3	58.2
Valid Disagree	13	19.4	19.4	77.6
Strongly Disagree	15	22.4	22.4	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Overhead deviations are calculated couple with fixed costs separated from variable cost. The table revealed that (18, 26.9%) Strongly Agree, (21, 31.3%) Agree, (13, 19.4%) Disagree and (15, 22.4%) Strongly Disagree. This indicates that respondents agree that Overhead deviations are calculated couple with fixed costs separated from variable cost.

Table 13 ABC (Activity-based costing) is used in our hospital

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	18	26.9	26.9	26.9
Agree	21	31.3	31.3	58.2
Valid Disagree	13	19.4	19.4	77.6
Strongly Disagree	15	22.4	22.4	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if ABC (Activity-based costing) is used in our hospital. The table revealed that (18, 26.9%) Strongly Agree, (21, 31.3%) Agree, (13, 19.4%) Disagree and (15, 22.4%) Strongly Disagree. This indicates that respondents agree that ABC (Activity-based costing) is used in our hospital.

Table 14 Performance valuation is based on nonfinancial measures related to employees (such as innovation, train)

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	18	26.9	26.9	26.9
Valid Agree	25	37.3	37.3	64.2



Disagree	14	20.9	20.9	85.1
Strongly Disagree	10	14.9	14.9	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Performance evaluation is based on nonfinancial measures related to employees (such as innovation, train). The table revealed that (18, 26.9%) Strongly Agree, (25, 37.3%) Agree, (14, 20.9%) Disagree and (10, 14.9%) Strongly Disagree. This indicates that respondents agree that Performance valuation is based on nonfinancial measures related to employees (such as innovation, training).

Table 4.15 Performance valuation is based on nonfinancial measures related to internal processes (such as errors percentage)

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	18	26.9	26.9	26.9
Agree	25	37.3	37.3	64.2
Disagree	14	20.9	20.9	85.1
Strongly Disagree	10	14.9	14.9	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Performance valuation is based on nonfinancial measures related to internal processes (such as errors percentage). The table revealed that (18, 26.9%) Strongly Agree, (25, 37.3%) Agree, (14, 20.9%) Disagree and (10, 14.9%) Strongly Disagree. This indicates that respondents agree that Performance valuation is based on nonfinancial measures related to internal processes (such as errors percentage).

Table 15 Performance valuation is based on nonfinancial measures related to internal processes (such as errors percentage)

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	18	26.9	26.9	26.9
Agree	25	37.3	37.3	64.2
Disagree	14	20.9	20.9	85.1
Strongly Disagree	10	14.9	14.9	100.0

Total	67	100.0	100.0	
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Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Performance valuation is based on nonfinancial measures related to internal processes (such as errors percentage). The table revealed that (18, 26.9%) Strongly Agree, (25, 37.3%) Agree, (14, 20.9%) Disagree and (10, 14.9%) Strongly Disagree. This indicates that respondents agree that Performance valuation is based on nonfinancial measures related to internal processes (such as errors percentage).

Table 16 Cost of quality is calculated and quality costing used

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	15	22.4	22.4	22.4
Agree	25	37.3	37.3	59.7
Disagree	18	28.9	28.9	86.6
Strongly Disagree	9	13.4	13.4	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Cost of quality is calculated and quality costing used. The table revealed that (15, 22.4%) Strongly Agree, (25, 37.3%) Agree, (18, 28.9%) Disagree and (9, 13.4%) Strongly Disagree. This indicates that respondents agree that Cost of quality is calculated and quality costing used.

Question 4: Do hospital managers use accounting information to create the value?

Table 17 - Performance valuation based on non-financial measures related to customers (such as customer satisfaction, delivery on time)

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	26	38.8	38.8	38.8
Agree	20	29.9	29.9	68.7
Disagree	13	19.4	19.4	88.1
Strongly Disagree	8	11.9	11.9	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Performance valuation based on non-financial measures related to customers (such as customer



satisfaction, delivery on time). The table revealed that (26, 38.8%) Strongly Agree, (20, 29.9%) Agree, (13,19.4%) Disagree and (8, 11.9%) Strongly Disagree. This indicates that respondents agree that Performance valuation based on non-financial measures related to customers (such as customer satisfaction, delivery on time).

Table 4.18: ABM (Activity-based management) is used

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Agree	25	37.3	37.3	37.3
Agree	18	26.9	26.9	64.2
Disagree	15	22.4	22.4	86.6
Strongly Disagree	9	13.4	13.4	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if ABM (Activity-based management) is used. The table revealed that (25, 37.3%) Strongly Agree, (18, 26.9%) Agree, (15, 22.4%) Disagree and (9, 13.4%) Strongly Disagree. This indicates that respondents Strongly agree that ABM (Activity-based management) is used.

Table 19 Hospital performance evaluation based on EVA (Economic value added)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Agree	22	32.8	32.8	32.8
Agree	18	26.9	26.9	59.7
Disagree	12	17.9	17.9	77.6
Strongly Disagree	15	22.4	22.4	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Hospital performance evaluation based on EVA (Economic value added). The table revealed that (22, 32.8%) Strongly Agree, (18, 26.9%) Agree, (12, 17.9%) Disagree and (15, 22.4%) Strongly Disagree. This indicates that respondents Strongly agree that Hospital performance evaluation based on EVA (Economic value added).

Table 4.20 TQM (Total quality management) is ensured

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Agree	14	20.9	20.9	20.9
Agree	25	37.3	37.3	58.2
Disagree	17	25.4	25.4	83.6
Strongly Disagree	11	16.4	16.4	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if TQM (Total quality management) is ensured. The table revealed that (14, 20.9%) Strongly Agree, (25, 37.3%) Agree, (17,25.4%) Disagree and (11, 16.4%) Strongly Disagree. This indicates that respondents agree that TQM (Total quality management) is ensured.

Question 5: Does utilization of accounting information system have significant effect on management performance in University College Hospital, Ibadan?

Table 21 Does utilization of accounting information system have a significant effect on management performance in University College hospital, Ibadan

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	33	49.3	49.3	49.3
No	10	14.9	14.9	64.2
Uncertain	24	35.8	35.8	100.0
Total	67	100.0	100.0	

Source: Field Survey, 2024

INTERPRETATION

Respondents' awareness if Utilization of accounting information system have a significant effect on management performance in University College hospital, Ibadan. The table revealed that (33, 49.3%) Yes, (10, 14.9%) No, (24,35.8%) and Uncertain. This indicates that respondents picked Yes that Utilization of accounting information system have a significant effect on management performance in University College hospital, Ibadan.

TEST OF HYPOTHESIS

This is the last section of the analysis where the Hypothesis were tested for using chi-square test of independence to validate the statement in data collected from the field survey whether null or alternate statement.

Hypothesis One



HYPOTHESIS ONE

Ho1: Accounting information system has no significant effect on financial control in public hospitals in Nigeria

Cost of different services is calculated in our hospital * Plant-wide overhead rate used for calculating of services costs

Count	Plant-wide overhead rate used for calculating of services costs				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
Cost of different services is calculated in our hospital	23	2	0	0	25
Strongly Agree	0	16	2	0	18
Agree	0	0	13	0	13
Disagree	2	0	1	8	11
Strongly Disagree	25	18	16	8	67

information system has a significant effect on financial control in public hospitals in Nigeria

HYPOTHESIS TWO

Ho2: Accounting information system has no significant effect on planning and control of public hospitals in Nigeria.

Budgets for revenues are prepared* Overhead deviations are calculated coupled with fixed costs separated from variable cost

Count	Overhead deviations are calculated couple with fixed costs separated from variable cost				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
Budgets for revenues are prepared	15	2	0	0	17
Strongly Agree	0	20	7	0	27
Agree	0	0	6	7	13
Disagree	0	0	0	10	10
Strongly Disagree	15	22	13	17	67

Chi-Square Tests

	Value	Asymp. Sig. (2-sided)
Pearson Chi-Square	193.642 ^a	.000
Likelihood Ratio	168.132	.000
Linear-by-Linear Association	71.622	.000
N of Valid Cases	67	

9 cells (56.3%) have expected count less than 5. The minimum expected count is 1.17.

Source: Field Survey, 2024

Conclusion: From the table above judged by the frequency table used and variable tested on the chi-square table, it was deduced that since p-value is less than the maximum probability level (0.000 < 0.05), we therefore reject H1: Null hypothesis (H0) and accept alternate hypothesis which states that accounting

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	138.248 ^a	9	.000
Likelihood Ratio	143.874	9	.000
Linear-by-Linear Association	65.596	1	.000
N of Valid Cases	67		



10 cells (62.5%) have expected count less than 5. The minimum expected count is 1.95.

Source: Field Survey, 2024

Conclusion: From the table above judged by the frequency table used and variable tested on the chi-square table, it was deduced that since p-value is less than the maximum probability level (0.000 < 0.05), we therefore reject H1: Null hypothesis (H02) and accept alternate hypothesis which states that accounting information system has a significant effect on planning and control of public hospitals in Nigeria.

HYPOTHESIS THREE

Ho3: Accounting information system has no significant effect on waste reduction in public hospitals in Nigeria

Performance valuation is based on administrative cost measures related to employees (such as innovation, train) *Performance valuation is based on administrative cost measures related to internal processes (such as errors percentage)

Count	Performance valuation is based on administrative cost measures related to internal processes (such as errors percentage)					
	Strongly Agree	Agree	Disagree	Strongly Disagree	Total	
Performance valuation is based on nonfinancial measures related to employees (such as innovation, train)	Strongly Agree	17	0	0	0	17
	Agree	0	20	7	0	27
	Disagree	0	0	13	0	13
	Strongly Disagree	0	0	0	10	10
Total	17	20	20	10	67	

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	231.000 ^a	9	.000
Likelihood Ratio	201.575	9	.000
Linear-by-Linear Association	76.000	1	.000
N of Valid Cases	67		

10 cells (62.5%) have expected count less than 5. The minimum expected count is 1.30.

Source: Field Survey, 2024

Conclusion: From the table above judged by the frequency table used and variable tested on the chi-square table, it was deduced that since p-value is less than the maximum probability level (0.000 < 0.05), we therefore reject H1: null hypothesis and accept alternate hypothesis which states that accounting information system has a significant effect on waste reduction in public hospitals in Nigeria.

HYPOTHESIS FOUR

Ho4: Accounting information system has no significant effect on value creation of public hospitals in Nigeria

Performance valuation based on non-financial measures related to customers (such as customer satisfaction, delivery on time) * Hospital performance evaluation is based on EVA (economic value added)

Count	Hospital performance evaluation is based on EVA (economic value added)					
	Strongly Agree	Agree	Disagree	Strongly Disagree	Total	
Performance valuation based on non-financial measures related to customers (such as customer satisfaction, delivery on time)	Strongly Agree	20	5	0	0	25
	Agree	0	11	7	0	18
	Disagree	0	0	8	7	15
	Strongly Disagree	0	0	0	9	9
Total	20	16	15	16	67	

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	123.176 ^a	9	.000
Likelihood Ratio	135.319	9	.000
Linear-by-Linear Association	65.185	1	.000
N of Valid Cases	67		

10 cells (62.5%) have expected count less than 5. The minimum expected count is 1.95.

Source: Field Survey, 2024

Conclusion: From the table above judged by the frequency table used and variable tested on the chi-square table, it was deduced that since p-value is less than the maximum probability level

($0.000 < 0.05$), we therefore reject H1: null hypothesis (Ho4) and accept alternate hypothesis which states that accounting information system has a significant effect on value creation of public hospitals in Nigeria.

Discussion of Findings

From the analysis, the relationship between accounting information system and Management performance of public hospitals in Nigeria a case study of University Collage Hospital, Ibadan. The result from the study showed that there is a significant relationship between accounting information system and Management performance of public hospitals in Nigeria a case study of University Collage Hospital, Ibadan.

The study revealed that the population under study were evenly distributed in terms of gender. This indicates that issue of gender discrimination is minimal as far as recruitment process into the Health Sector in Nigeria is concerned. The study also revealed that the dominant age group of the respondents that participated in the study are between the age range of 36 years to 40 years old. This is not unconnected to the fact that accounting information system is a technological innovation, incorporated into the health care operation in the modern world.

The study found that University Collage Hospital, Ibadan has implemented an accounting information system comprising financial modules, patient management systems, and inventory control. Therefore, the study revealed that majority of the respondent attained B.Sc. University certificate while others proceeded to higher education level. In essence, the study population is dominated by academic elites; the reason why accounting information system innovation is easy for them is through the modern management performance of the hospital.

The study also affirmed that through the accounting information system, University Collage Hospital, Ibadan can better allocate resources based on patient needs, optimizing operational efficiency. However, the utilization of accounting information system requires various software applications which facilitates easy accounting information system and management performance to make work easier for the staff members. Based on these findings, the availability of real-time data through the accounting information system allows for prompt decision-making, leading to enhanced service quality and increased patient satisfaction. Despite the benefits, challenges such as inadequate infrastructure, staff training, and data security concerns hinder the optimal utilization of the accounting information system.

Meanwhile, majority of the respondents claimed that cost of different services is calculated in hospital and plant-wide overhead rate is used for calculation of services costs in the hospital. The study established the fact that accounting information system has a significant effect on financial control in public hospitals in Nigeria

This study was substantiated by majority of the respondents that Budgets for revenues are prepared in the hospital and the Overhead deviations are calculated coupled with fixed costs separated from

variable cost which concluded that accounting information system has a significant effect on planning and control of public hospitals in Nigeria.

On this basis, majority of respondents confirmed that Performance evaluation of the hospital is based on nonfinancial measures related to employees (such as innovation, training) and internal processes (such as errors percentage) which includes that accounting information system has a significant effect on waste reduction in public hospitals in Nigeria.

This study highlights the significant role of accounting information system in improving management performance in public hospitals, as evidenced by the case of University College Hospital, Ibadan. Despite challenges, the implementation of accounting information system has led to enhanced financial management, better allocation, and service quality. Addressing existing challenges and fostering continuous improvement in accounting information system utilization are essential for further enhancing management performance in Nigerian public hospitals.

Implication of the study

Accounting information system is an absolute tool in the hands of managers striving to remain in a competitive advantage amidst the rapid technological advancement, increased awareness and challenging demands from customers and business owners. This review examines the effect of accounting information system on financial performance of firms. The main objective is to review conceptual and theoretical foundations as well as empirical literature relating to accounting information system and financial performance of firms. Findings from the review reveals that past studies on effect of accounting information on financial performance limitedly aligned their works to the cost implication of accounting information system as it relates to financial performance of firms. This review also found that most of the studies employed the use of survey research design to examine this relationship and majority of the studies were carried out in advanced economies where computerized accounting system techniques have been accepted to a large extent.

CONCLUSION AND RECOMMENDATION

The value of an accurate and efficient accounting system is demonstrated by its ability to aid all organizations, by contributing to improving the quality of services, reducing costs and eliminating all resource-wasting activities; it also contributes to knowledge and experience which eventually leads to developing the organization and increasing its competitive advantage through the system's ability to provide the right information at the right time.

From the analysis of the study, the following conclusions were drawn:

1. Using accounting information system will help to determine the cost and financial control of University College Hospital, Ibadan
2. Effective accounting information system will aid in planning and control by management of university College Hospital, Ibadan.
3. Making use of accounting information system will help

the hospital managers to reduce the resources waste in University College Hospital, Ibadan.

1. Accounting information is used by hospital manager to create value in College Hospital, Ibadan.
2. Utilization of accounting information system has significant effects on management performance in University College Hospital, Ibadan.

RECOMMENDATION

According to the above findings and objectives of the study, the study recommends:

1. **Automation of accounting system:** That University College Hospital, Ibadan management should focus on computerized accounting information systems in terms of keeping up with the latest developments in the fields of hardware, software and databases.
2. **Cost control:** There is need for conducting regular maintenance in order to reduce the costs of medical services offered to patients at University College Hospital, Ibadan.
3. **Staff Training:** The hospital is recommended to develop its work procedures in line with computerized accounting information systems.
4. **Researchers:** The study also recommends further research on the role of computerized accounting information systems in reducing the costs of medical services at other public hospitals.

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