

SATISFACTION OF HEALTH INFORMATION MANAGERS WITH HEALTH INFORMATION MANAGEMENT SYSTEM IMPLEMENTATION IN SELECTED HOSPITALS IN OGUN STATE

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Abstract

Purpose: This study aimed to (1) assess the satisfaction levels of health information managers with the implemented Health Information Management System (HIMS), (2) examine differences in satisfaction levels based on the managers' healthcare setting (primary, secondary, tertiary), and (3) evaluate the HIMS's contribution to the accuracy and completeness of health information data.

Design/Methodology/Approach: The study employed a descriptive survey design. Data was collected from 214 Health Information Managers using a structured questionnaire, which was validated through the Cronbach's alpha test (alpha coefficient = 0.8). Descriptive statistics and ANOVA were used to analyze the data.

Findings: The results revealed widespread dissatisfaction among health information managers with the overall performance, functionality, and user-friendliness of the HIMS (grand mean satisfaction score = 2.09 out of 5). Significant differences in satisfaction levels were observed based on the managers' healthcare setting. Primary care information managers had significantly higher satisfaction levels compared to their counterparts in secondary (mean difference = 3.100, $p = 0.002$) and tertiary (mean difference = 3.300, $p = 0.019$) care settings. However, the Health Information Managers agreed that the HIMS contributed positively to the accuracy and completeness of health information data (mean = 3.20).

Implications: The findings highlight the need for the healthcare organization to critically evaluate the HIMS and implement targeted improvements to address the identified shortcomings and disparities in user satisfaction. Leveraging the system's positive impact on data quality, while tailoring the HIMS to better meet the unique requirements of information managers across different care settings, can lead to enhanced user engagement and optimized benefits from the HIMS.

Originality/Value: This study provides valuable insights into the satisfaction levels of health information managers with HIMS implementation, as well as the system's impact on data quality. The findings can inform the development of user-centric strategies for HIMS implementation and optimization, ultimately enhancing the effectiveness of health information management in supporting high-quality healthcare delivery.

Keywords: Health Information Management System, Health Information Managers, User Satisfaction, Data Quality, Healthcare Setting, Ogun State

Introduction

The evolution of Health Information Systems (HIS) is crucial for supporting clinical decision-making, improving health policy planning, and promoting global health development. HIS has been recognized for its ability to enhance readability, reduce medical errors, minimize costs, and improve healthcare quality (Anyika, 2014). Health information encompasses a detailed account of a

patient's diagnosis, care, history, physician observations, and the outcomes of medical tests, procedures, medications, and therapeutic interventions (Hasanain & Cooper, 2014); (Awe, 2020). The International Organization for Standardization (ISO) defines a health document as information produced, obtained, and retained by an entity or individual during a business transaction or the enforcement of legal obligations, regardless of the media used (Kalra, 2006).

Health Information Management Systems (HIMS) remain an effective way of managing patient medical records, which can enhance the quality of medical care.

Monitoring and evaluation are often associated with health information systems. Health Information Managers, as key stakeholders, play a pivotal role in influencing user satisfaction with HIMS. User satisfaction represents a subjective yet vital dimension of HIMS quality, as it reflects the experiences and perceptions of the individuals interacting with these systems, including healthcare practitioners and administrative staff. The usability, intuitiveness, and alignment of HIMS with the workflow of healthcare professionals significantly influence their satisfaction levels (Holden, Karsh, & Karsh, 2010). Studies by Melnick et al. (2018) emphasize the importance of user satisfaction in promoting the acceptance and sustainable use of health information technologies, underlining the need to consider human factors in the evaluation of HIMS quality (Sakowska et al., 2017).

User satisfaction is an integral factor in determining the overall quality of HIMS. Health Information Managers, as key stakeholders, play a pivotal role in influencing user satisfaction. The study by Brown and Miller (2017) underscores the significance of user satisfaction in the successful adoption and sustained use of health information technologies. User-friendly interfaces, efficient workflows, and adequate support mechanisms contribute to heightened satisfaction among healthcare practitioners interacting with HIMS. Beyond monitoring and assessment, HIS serves broader objectives, such as providing an alert and early warning function, supporting patient and health facility management, enabling research preparation and funding, facilitating health situation and trend analysis, promoting regional coverage, and communicating health issues to diverse consumers. Accurate HIS can enhance complete, reliable, and standardized

clinical data documentation; automated data processing and information generation; direct access to instant reporting notifications and remote access to patient records; decrease medical errors due to legibility and order entry errors; and improve decision support from analytical data, predictive modelling, and disease management software. However, data is only useful if it is accessible in ways that meet the needs of all users, including policymakers, planners, administrators, healthcare professionals, communities, and individuals (Kalra, 2006). Similarly, Ngafeeson (2014) described healthcare information systems as systems used for data processing and researching healthcare knowledge environments.

In many developing countries, hospitals, especially public ones, do not sufficiently use information technology to ensure the smooth functioning of patient information control and administration, as electronic record systems are yet to be fully implemented for records management purposes. However, electronic medical record (EMR) systems can provide access to personal health records (PHRs), making individual notes from the EMR readily available and usable by consumers (Adepoju & Opele, 2021). EMR systems can also process patient data to predict, track, and potentially avoid adverse events, with features like automated instructions for discharge/transfer, pharmacy, radiology, laboratory, and other data. Literature has shown that the extent to which the satisfaction of patients and other users can be determined is affected by these capabilities (Smeets et al., 2018). User satisfaction is a subjective yet vital dimension of health information management system (HIMS) quality, as it reflects the experiences and perceptions of healthcare practitioners and administrative staff interacting with these systems. The usability, intuitiveness, and alignment of HIMS with healthcare professionals' workflows significantly influence their

satisfaction levels (Holden, Karsh, & Karsh, 2010). Studies have emphasized the importance of user satisfaction in promoting the acceptance and sustainable use of health information technologies, underscoring the need to consider human factors in the evaluation of HIMS quality (Brown and Miller, 2017; Melnick et al., 2018).

Statement of the problem

The implementation of Health Information Management Systems (HIMS) in Nigeria holds immense potential to revolutionize healthcare delivery. However, this transformative endeavour is hindered by a spectrum of challenges that demand attention and resolution. The dynamic nature of the healthcare sector, influenced by socio-economic factors, presents formidable obstacles to the seamless integration of HIMS (Ojo & Popoola, 2016). One notable challenge pertains to infrastructural limitations. Inadequate technological infrastructure and unreliable power supply greatly impede the optimal functioning of electronic health information systems (Adeloye, 2017). Without the necessary infrastructure in place, the full benefits of HIMS cannot be realized, hindering efficient healthcare delivery and information management. Furthermore, the issue of data security looms large in the implementation of HIMS. With sensitive health information at stake, robust measures must be in place to protect patient privacy and ensure data integrity (Adebayo & Uzoka, 2019). The need for comprehensive data security protocols and safeguards is critical to foster trust and confidence in the use of HIMS. Resistance to change within the healthcare workforce adds another layer of complexity to HIMS implementation. Overcoming this resistance requires not only technological solutions but also comprehensive strategies to address mindset shifts and foster a culture conducive to HIMS adoption (Iheagwara, 2018). This entails

education, training, and engagement initiatives to empower healthcare professionals and help them embrace HIMS as a valuable tool for improving patient care. The current study therefore seeks to investigate the satisfaction of Health Information Managers with health information management system implementation in selected hospitals in Ogun State. The findings of this study will contribute to the general body of knowledge surrounding HIM implementation, and suggest strategies for effective and efficient healthcare delivery in Nigeria.

Objectives

The general objective of this study is to examine the satisfaction of health information managers with health information management system implementation in selected hospitals in Ogun State. the specific objectives are set to;

1. assess the level of Satisfaction of Health Information Managers with Health Information Management Systems in selected hospitals in Ogun State.
2. compare the difference in the level of satisfaction of health information managers with the health information management system across the three levels of health among selected hospitals in Ogun State.

Research Questions

The following research questions are formulated to guide the conduct of this study:

1. What is the level of satisfaction of the Health Information Managers with the health information management system in selected hospitals in Ogun State?
2. Is there a significant difference in the level of satisfaction of health information managers with the health information management system

across the three levels of health among selected hospitals in Ogun State?

Literature Review

Overview of Manual and Electronic Health Records System

Ajala et al. (2015) argued that paper-based record management requires considerable storage space compared to digital documents. Records management (RM) encompasses the oversight and administration of both digital and paper-based documents, irrespective of format (Jha et al., 2006). This includes the development, receipt, maintenance, utilization, and disposal of records. In this context, a record is a content that documents a business transaction. The traditional manual paper-based health records are practised differently across hospitals globally. Developed and developing countries have varying policies on the retention of paper-based and electronic records. For instance, many U.S. states mandate the maintenance of physical documents for at least seven years. The expenses associated with storing paper-based information, such as paper and video, differ significantly from the costs of electronic storage media. If paper records are kept in various locations, it becomes time-consuming and challenging to compile them at a single site for healthcare professionals to review. In contrast, electronic records can simplify this process. These advantages are particularly true for person-centred documents, which are inefficient if not electronic and difficult to centralize or federate. In large medical institutions, the need to copy, fax, and transport paper-based records has led to the increasing adoption of electronic medical records (EMRs).

An electronic health record (EHR) system is described as a centralized repository of an individual patient's or community's electronic health information (Gunter & Nicholas, 2005; Ajala, Awokola,

& Emuoyibofarhe, 2015). EHRs can potentially be shared across various healthcare settings and may contain a range of data, including ethnicity, medical history, prescriptions, allergies, immunization status, laboratory results, radiology images, vital signs, personal information, and billing data. EMRs and EHRs are healthcare information technology (HIT) systems used by providers to monitor and update patient health information, submit orders, and track outcomes, findings, and treatment (Rice, Rosenau, Unruh & Barnes, 2013; Kazley & Ozcan, 2008). While EMRs and EHRs are often used interchangeably, the key difference is that EHRs have inter-organizational interoperability, unlike EMRs, which are limited to a specific healthcare system (Garets & Davis, 2006). The implementation of EHR systems in the United States has been slow. Scholars have advocated for the adoption of electronic health records due to their superiority over traditional manual methods. Research has also identified technological, social, and financial barriers to the successful implementation of EHRs in developing countries, including Nigeria, and called for strategies to address these obstacles.

Job Satisfaction by Health Information Managers

Job satisfaction is crucial for employee performance, motivation, retention, and well-being, particularly in the healthcare sector where it can impact the quality of care, patient safety, and health outcomes. Health information managers (HIMs) play a vital role in managing health data and records, supporting decision-making, research, and quality improvement in healthcare. However, little is known about the job satisfaction of HIMs in Nigeria, a developing country with a large and diverse health system. Salary is a key factor influencing job satisfaction, as it reflects the perceived value and worth of

an employee. However, HIM salaries in Nigeria are generally low and inconsistent, ranging from NGN 30,000 (USD 78) to NGN 150,000 (USD 390) per month, with a median of NGN 60,000 (USD 156). This is significantly lower than the average HIM salaries in other countries, such as USD 2,500 in South Africa, USD 4,000 in Kenya, and USD 6,000 in the United States. Salary delays and arrears in the public sector, which account for the majority of health facilities in Nigeria, can further contribute to frustration and dissatisfaction among HIMs.

Working conditions, including the availability and quality of equipment, tools, workspace, lighting, ventilation, safety, and security, can also impact employee satisfaction. Unfortunately, working conditions for HIMs in Nigeria are often poor, with inadequate and obsolete equipment, insufficient and unreliable power supply, lack of internet access, overcrowded and noisy workspaces, and exposure to dust and infections. Only 23.5% of HIMs had access to computers, 11.8% had access to the internet, 29.4% had adequate workspace, and 35.3% had adequate lighting, which can hamper performance and productivity, and cause stress and dissatisfaction. Effective supervision, including clear roles and responsibilities, regular and constructive feedback, training and development opportunities, involvement in decision-making, and recognition, is crucial for

employee satisfaction. However, supervision for HIMs in Nigeria is often ineffective and unsupportive, with only 38.5% receiving feedback from their supervisors, 23.1% receiving recognition, 30.8% having access to training and development, and 15.4% having opportunities for career advancement.

The sense of achievement and accomplishment, derived from improving data quality, enhancing health information systems, supporting decision-making and research, and contributing to better health outcomes, can be a strong motivator for HIMs. Indeed, 88.2% of HIMs in Nigeria agreed that their job gave them a sense of achievement, indicating that this is a significant factor in their job satisfaction. Career development, including access to training and education programs, diverse career paths, competitive career opportunities, and attractive rewards and incentives, can also affect job satisfaction. However, career development for HIMs in Nigeria is often limited and constrained, with only 30.8% having access to training and development, and 15.4% having opportunities for career advancement. In conclusion, understanding the factors influencing job satisfaction among HIMs in Nigeria is crucial for improving employee well-being, performance, and the overall quality of healthcare delivery in the country.

Information Systems Success Model

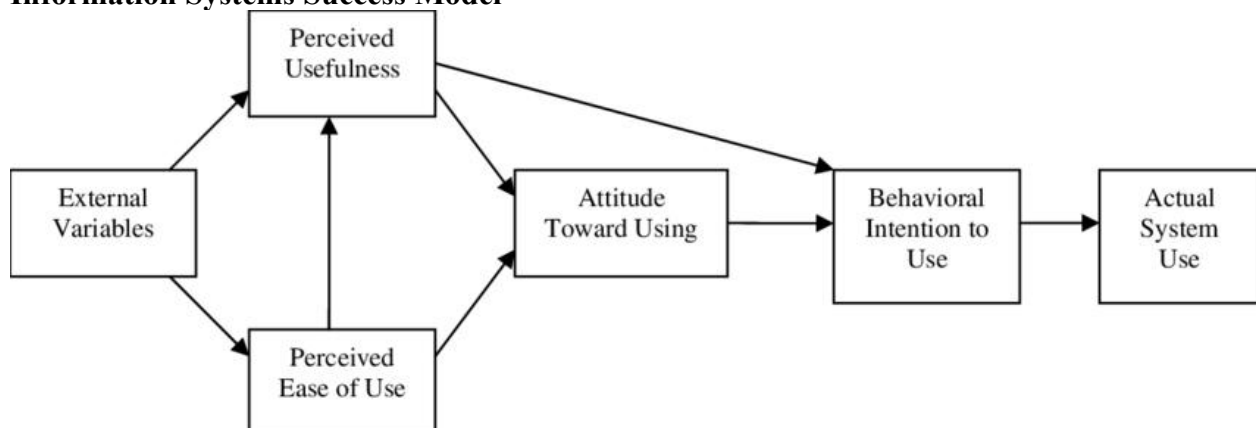


Figure 2.2: Information Systems Success Model (DeLone and McLean,1992)

The Information Systems Success Model, proposed by DeLone and McLean in 1992, provides a comprehensive and multidimensional framework for evaluating the success of information systems. This model is particularly relevant to understanding the perception of Health Information Managers (HIMs) in Nigeria regarding the quality, satisfaction, and challenges of Health Information Management Systems (HIMS). The six dimensions of the model - system quality, information quality, service quality, intention to use, user satisfaction, and net benefits - offer a holistic approach to assessing the effectiveness of information systems. System quality within the model refers to the technical aspects of the information system, including the reliability, performance, and functionality of HIMS. Assessing HIMS from this perspective allows the study to explore the technical factors that shape HIMs' experiences with the system. Information quality emphasizes the relevance, accuracy, and completeness of the information provided by HIMS. For HIMs dealing with critical health data, the accuracy and completeness of HIMS data are paramount. Evaluating information quality provides insights into how well HIMS supports HIMs in their information management tasks.

Service quality extends the focus to the human and service-oriented elements of the system. In the healthcare context, this dimension explores how well HIMS meets the support and assistance expectations of HIMs in the Nigerian setting. The intention to use, user satisfaction, and net benefits dimensions capture the user-centric aspects of HIMS. Intention to use signifies HIMs' willingness to adopt and integrate the system, user satisfaction gauges their subjective well-being with the system, and net benefits consider the positive outcomes and added value that HIMs perceive. Applying the Information Systems Success Model allows for a comprehensive

examination of HIMS effectiveness, encompassing technical, informational, and organizational dimensions. The model's adaptability also enables the incorporation of contextual factors specific to the Nigerian healthcare system, ensuring that the study considers the cultural, organizational, and environmental nuances that may influence HIMs' perceptions of HIMS success.

In essence, the Information Systems Success Model serves as a robust and flexible framework for the study on HIMS in Nigeria. By exploring the six dimensions of the model, the study can unravel the complexities of HIMs' experiences with HIMS, providing valuable insights into the success and challenges of health information management in the Nigerian healthcare landscape.

Methodology

This study employed a quantitative, descriptive survey research design. The population for the study comprised Health Information Managers working across all 4 tertiary, 23 secondary, and 607 primary hospitals in Ogun State, Nigeria. A multistage sampling technique was used. First, cluster sampling was employed to group the hospitals into three geographic clusters. Then, a random sampling technique was used to select six hospitals from these clusters, ensuring diverse representation. Finally, a purposive sampling approach was used to select 214 Health Information Managers from the chosen hospitals, targeting participants with relevant expertise and experience.

To ensure the validity of the research instrument, content validation was conducted by the research supervisor. This process involved a thorough review to ensure the questionnaire effectively measured the intended constructs. The reliability of the instrument was assessed using Cronbach's alpha. High alpha coefficients of 0.8, 0.8 and 0.9 were obtained, indicating a reliable and

internally consistent questionnaire. Before the main study, a pilot study was carried out with a small sample of individuals similar to the target participants. This allowed for the evaluation and refinement of the questionnaire, addressing any ambiguities or issues. The data was collected through face-to-face interactions between the researcher and participants. This approach facilitated an in-depth understanding of perspectives and experiences, allowing for clarification and rapport-building. The data analysis

employed a combination of descriptive and inferential statistics. Descriptive statistics, such as means and standard deviations, provided summaries of key variables. Inferential analysis, specifically one-way ANOVA and Tukey post-hoc tests, was used to examine the significance of differences in the perceptions of Health Information Managers regarding quality, job satisfaction, and challenges of health information services across the selected hospitals.

Results

Table 1: Satisfaction of Health Information Managers with Health Information Management System

Item	Mean (X)	SD	Remark
I am satisfied with the overall performance and functionality of the Health Information Management System in my hospital.	1.81	0.62	Disagreed
The user interface of the Health Information Management System is user-friendly and easy to navigate.	1.99	0.77	Disagreed
The HIMS effectively meets the specific needs and requirements of our health information management processes.	1.93	0.76	Disagreed
I find the reporting and analysis features of the HIMS valuable for decision-making in health information management.	2.03	0.73	Disagreed
The HIMS contributes positively to the accuracy and completeness of health information data in our hospital.	3.20	0.48	Agreed
I receive adequate support and training for effectively utilizing the Health Information Management System.	1.89	0.69	Disagreed
Overall, I am satisfied with the level of integration and interoperability of the Health Information Management System in our health facility.	1.81	0.68	Disagreed
Grand Mean	2.09		Disagreed

Table 1 presents an in-depth examination of health information managers' satisfaction levels with the Health Information Management System (HIMS) implemented in the sampled hospitals. The respondents collectively expressed dissatisfaction across various dimensions of the HIMS. Notably, mean scores for statements related to overall performance and functionality (1.81), user-friendliness of the interface (1.92), meeting specific needs (1.93), the value of reporting and analysis features (2.01), and integration/interoperability (2.03) all fell below the 2.50 satisfaction threshold. This indicates that health information managers were dissatisfied with these key aspects of the HIMS. Conversely, the managers did agree (mean=3.20) that the HIMS positively contributes to the accuracy and completeness of health information data. The grand mean of 2.09 across all measures reinforces the overall disagreement among health information managers regarding their satisfaction with the HIMS.

The implications of these findings are significant. The widespread dissatisfaction with the HIMS performance, functionality, usability, and integration suggests major shortcomings that need to be addressed. Health information managers, as the primary users of these systems, are not satisfied with the current HIMS implementation. This has implications for the quality, reliability, and utility of the health information data being managed through the system. To improve user satisfaction and optimize the benefits of HIMS, the healthcare organization should closely examine the specific pain points identified by the managers and undertake targeted improvements to the system's design, features, and integration with other processes. Soliciting direct feedback from end-users like the health information managers is crucial for guiding these enhancements and ensuring the HIMS effectively meets their needs. Addressing the identified shortcomings could lead to greater user satisfaction, higher data quality, and more informed decision-making across the healthcare system.

Table 2 ANOVA shows the significant difference in the level of satisfaction of health information managers with the health information management system among selected hospitals in Ogun State.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.550	2	1.275	18.739	.001
Within Groups	10.961	211	.052		
Total	13.511	213			

The results presented in Table 2 indicate a statistically significant difference in the level of satisfaction of health information managers with the Health Information Management System (HIMS). Specifically, the ANOVA test shows a significant F-statistic of 18.739 with a p-value of 0.001. This means the observed variability in satisfaction levels among the managers is highly unlikely to have occurred by random chance alone. The implication is that there are meaningful differences in how satisfied (or dissatisfied) the health information managers are with the HIMS implementation. This rules out the null

hypothesis that any differences were simply due to random variation. The statistical significance of these findings suggests that healthcare organizations should further investigate the sources of this variability in satisfaction. Understanding the drivers of this variability in satisfaction will be crucial for the healthcare organization to identify and address the root causes. This can help ensure the HIMS is meeting the needs of all health information managers consistently and effectively. Overall, the statistically significant differences in satisfaction levels, as demonstrated by the

rejected null hypothesis, indicate the organization

should prioritize a deeper analysis of user experiences and perceptions of the HIMS. Addressing any identified pain points or disparities could lead to increased user

satisfaction, higher system utilization, and improved healthcare data quality and decision-making.

Table 3: Tukey Honestly Significant Difference (HSD) for Multiple Comparisons of Health Institution Managers in Perception of Health Information Management Level of Satisfaction

Tukey HSD

(I) Health Institution Type	(J) Health Institution Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Primary Health Care Information Manager	Secondary Health Care Information Manager	3.1000	1.2308	.002	-2.947	7.147
	Tertiary Health Care Information Manager	3.3000	1.2308	.019	-2.847	7.447
Secondary Health Care Information Manager	Primary Health Care Information Manager	-3.1000	1.2308	.002	-7.147	2.947
	Tertiary Health Care Information Manager	.0200	1.2308	.789	-4.347	4.747
Tertiary Health Care Information Manager	Primary Health Care Information Manager	-3.3000	1.2308	.019	-7.447	2.847
	Secondary Health Care Information Manager	-.0200	1.2308	.789	-4.747	4.347

Multiple Comparisons

Dependent Variable: Satisfaction

The results presented in the table reveal some important insights into the differences in satisfaction levels with the Health Information Management System (HIMS) across different levels of healthcare. Most notably, there is a significant mean difference of 3.100 (p=0.002) between Primary Health Care Information Managers and their counterparts in Secondary Health Care. This suggests Primary health care managers perceive significantly higher levels of satisfaction with the HIMS compared to Secondary health care managers. The 95% confidence interval of this mean difference ranges from -2.947 to 7.147, indicating the true difference in satisfaction levels between these two

groups is likely to fall within this range. Similarly, a significant mean difference of 3.300 (p=0.019) was observed between Primary and Tertiary Health Care Information Managers. This implies Primary health care managers are more satisfied with the HIMS than their Tertiary health care peers. Interestingly, no significant difference was found in satisfaction levels between Secondary and Tertiary Health Care Information Managers (mean difference = 0.020, p=0.789, 95% CI [-4.347, 4.747]).

These findings indicate that the level of healthcare setting (primary, secondary, tertiary) is an important factor influencing health information managers' perceptions and satisfaction with the HIMS. Primary care managers appear to

be more satisfied than their counterparts in secondary and tertiary settings. The implication is that the HIMS may not be

meeting the unique needs and requirements of information managers across the different levels of healthcare equally. The healthcare organization should investigate the reasons behind these differences in satisfaction levels, and consider tailoring the HIMS functionalities, interfaces, and support to better address the specific pain points of managers in secondary and tertiary care environments. Addressing these disparities could help ensure all health information managers, regardless of their healthcare setting, are equally satisfied with and able to leverage the HIMS to support high-quality data management and decision-making.

Discussion

The findings showed that the Health Information Managers expressed widespread dissatisfaction with the HIMS across multiple dimensions: They were dissatisfied with the overall performance, functionality, and user-friendliness of the HIMS (mean scores below 2.50). They felt the HIMS did not effectively meet the specific needs and requirements of their health information management processes. They were dissatisfied with the reporting and analysis features, as well as the level of integration and interoperability of the HIMS. These findings agree with the findings of similar studies that have been conducted in different settings (Bui & Pham, 2016); (Ogundaini et al., 2021); (Awogbami, et al, 2020). The grand mean satisfaction score of 2.09 further reinforced the overall disagreement among the managers regarding the HIMS. These results indicate significant shortcomings in the design, features, and implementation of the HIMS from the perspective of the primary end-users.

Also, the analysis revealed important differences in satisfaction levels across the different healthcare settings: Primary healthcare information managers had significantly higher satisfaction levels compared to their counterparts in secondary and tertiary care settings. There

was a 3.100 mean difference ($p=0.002$) in satisfaction between primary and secondary care managers. There was also a 3.300 mean difference ($p=0.019$) between primary and tertiary care managers. However, no significant difference was found between secondary and tertiary care information managers.

These findings suggest the HIMS is meeting the needs of primary care managers better than those in secondary and tertiary settings. The healthcare organization should investigate the reasons behind these disparities and consider tailoring the HIMS to better address the unique requirements of information managers in different care environments. In contrast to the overall dissatisfaction, the study found that health information managers did agree the HIMS positively contributes to the accuracy and completeness of health information data (mean=3.20). This indicates that while the managers were dissatisfied with many aspects of the HIMS, they acknowledged its value in ensuring the quality and reliability of the data being managed through the system. Taken together, these findings suggest the healthcare organization has an opportunity to leverage the HIMS's positive impact on data accuracy and completeness while addressing the significant shortcomings identified by the end-users. Improving the system's performance, functionality, and usability. Overall, the findings tallies with the outcome of similar studies that have examined health information management practices in different settings (Opele & Okunoye, 2019); (Awogbami et al., 2020).

Conclusion

This study examined the satisfaction levels of health information managers with the implemented Health Information Management System (HIMS) across a large healthcare organization. The findings reveal significant areas of dissatisfaction among the managers, highlighting major shortcomings in the

design, functionality, and user-friendliness of the HIMS. Notably, the managers expressed widespread disagreement with the HIMS's overall performance, its ability to meet their specific needs, and the quality of its reporting and analysis capabilities. The grand mean satisfaction score of 2.09 (out of 5) further underscores the general lack of satisfaction with the system. However, the study also found that the managers recognized the HIMS's positive contribution to the accuracy and completeness of health information data, indicating the system's inherent value when properly implemented and utilized. Importantly, the analysis revealed notable differences in satisfaction levels based on the managers' healthcare setting. Primary care information managers were significantly more satisfied with the HIMS compared to their counterparts in secondary and tertiary care environments. This suggests the HIMS may not be adequately meeting the unique requirements of information management in different care settings. Overall, the findings point to the need for healthcare organizations to critically evaluate the HIMS and implement targeted improvements to address the identified shortcomings and disparities in user satisfaction.

Recommendations

Based on the study's findings, the following recommendations are proposed:

1. There is a need for the hospital management to gather detailed feedback from Health Information Managers across all healthcare settings to understand their specific needs and requirements; The hospital authorities should prioritize enhancements to the system's functionality, user-friendliness, and reporting/analytics capabilities
2. There is a need to understand the unique challenges and needs of Health Information Managers in different care settings within the state so that appropriate help can be extended to them.

3. There is a need to tailor the HIMS configuration, interfaces, and support to better meet the requirements of each care environment
4. The hospital management should provide targeted training and support to help Health Information Managers fully utilize the HIMS's data management capabilities
5. Ensure effective communication, training, and ongoing support for all health information managers
6. Establish feedback mechanisms to continuously monitor and address user satisfaction

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