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UNLOCKING THE DYNAMICS: INFORMATION TECHNOLOGY INTEGRATION, USER PERCEPTION, AND PERFORMANCE IN KENYAN PUBLIC HOSPITALS

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ABSTRACT
This study investigates the intricate relationship between information technology (IT) integration, user perception, and performance in selected public hospitals in Kenya. With the increasing adoption of IT in healthcare settings, understanding how IT integration influences hospital performance through user perception is crucial for optimizing healthcare delivery. Through a mixed-methods approach, including surveys and interviews, data were collected from healthcare professionals and administrators in public hospitals. Statistical analyses and thematic coding were used to explore the mediating role of user perception in the relationship between IT integration and hospital performance. Preliminary findings suggest that user perception plays a significant mediating role, influencing the extent to which IT integration impacts hospital performance. Positive user perceptions enhance the effectiveness of IT integration, leading to improved performance outcomes such as patient care quality and operational efficiency. Conversely, negative perceptions may hinder the realization of IT benefits. These findings underscore the importance of considering user perceptions when designing and implementing IT systems in healthcare settings.

KEYWORDS: Information technology integration, User perception, Hospital performance, Healthcare delivery, Public hospitals, Kenya.

INTRODUCTION

Information technology (IT) integration has become increasingly prevalent in healthcare systems worldwide, offering promising opportunities to enhance efficiency, quality of care, and patient outcomes. In Kenya, like many other countries, public hospitals are striving to harness the potential benefits of IT to address the challenges of limited resources and growing healthcare demands. However, the successful implementation and utilization of IT systems in healthcare settings depend not only on technological factors but also on user perceptions and their interaction with organizational processes and performance.

Understanding the interplay between IT integration, user perception, and hospital performance is essential for optimizing the effectiveness of IT initiatives in public hospitals in Kenya. User perception, encompassing attitudes, beliefs, and experiences regarding IT systems, plays a crucial role in shaping how healthcare professionals and administrators interact with technology and its impact on their work processes and outcomes. Positive user perceptions can facilitate the adoption and utilization of IT, leading to improved performance outcomes such as enhanced patient care quality, increased efficiency, and better decision-making. Conversely, negative perceptions may impede the realization of IT benefits and hinder organizational performance.

Despite the recognized importance of user perception in IT implementation and utilization, there is limited research examining its mediating role in the relationship between IT integration and hospital performance, particularly in the context of public hospitals in Kenya. This study aims to address this gap by investigating how user perception influences the extent to which IT integration contributes to performance outcomes in selected public hospitals.

Through a mixed-methods approach, including surveys and interviews with healthcare professionals and administrators, this study explores the complex dynamics underlying IT integration, user perception, and hospital performance. By examining both quantitative and qualitative data, we seek to gain a comprehensive understanding of the factors influencing the success of IT initiatives in Kenyan public hospitals and identify strategies for improving their effectiveness.

In this introduction, we provide an overview of the importance of IT integration in healthcare, the role of user perception in shaping IT utilization, and the significance of understanding their impact on hospital performance. We also outline the objectives and methodology of the study, including data collection procedures and analytical approaches. By unlocking the dynamics of IT integration, user perception, and performance in Kenyan public hospitals, this research aims to inform evidence-based strategies for optimizing IT implementation and enhancing healthcare delivery in the region.

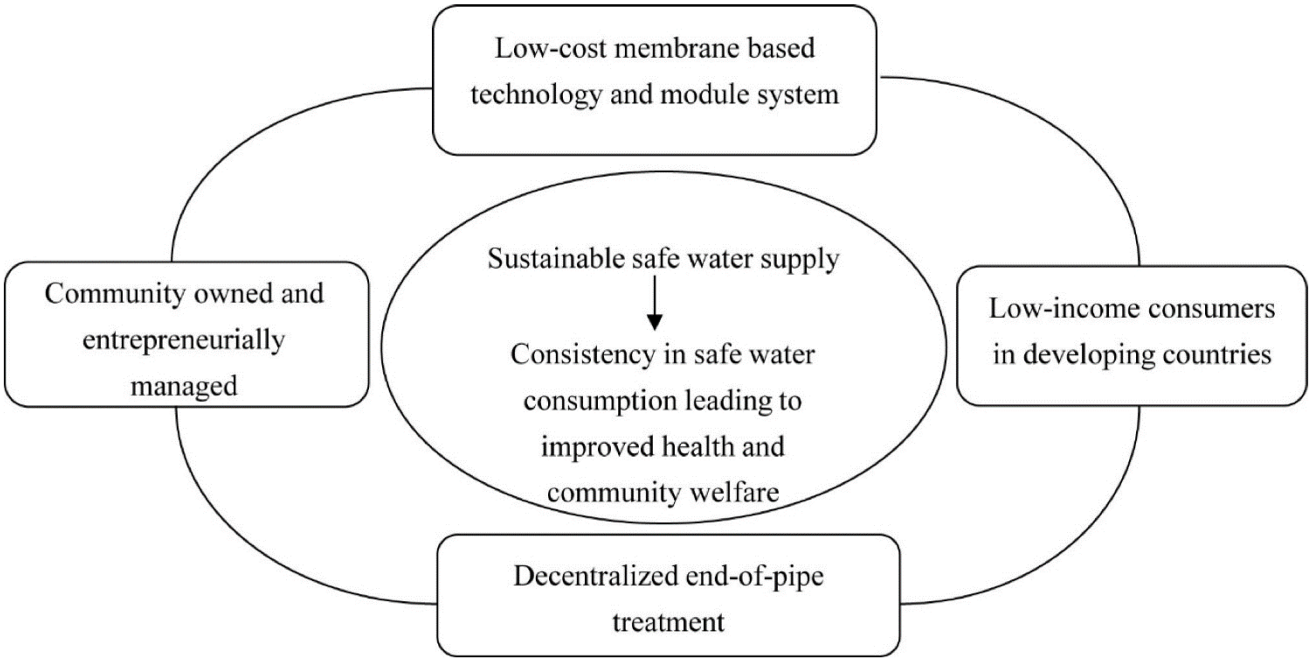
METHOD

Sampling and Participants:

A purposive sampling strategy was employed to select public hospitals in Kenya that have implemented IT systems in their healthcare delivery processes. Key stakeholders, including healthcare professionals and administrators directly involved in IT utilization and management, were identified as participants for this study. Inclusion criteria included a minimum of one year of experience working in the selected public hospitals and involvement in the utilization or management of IT systems.

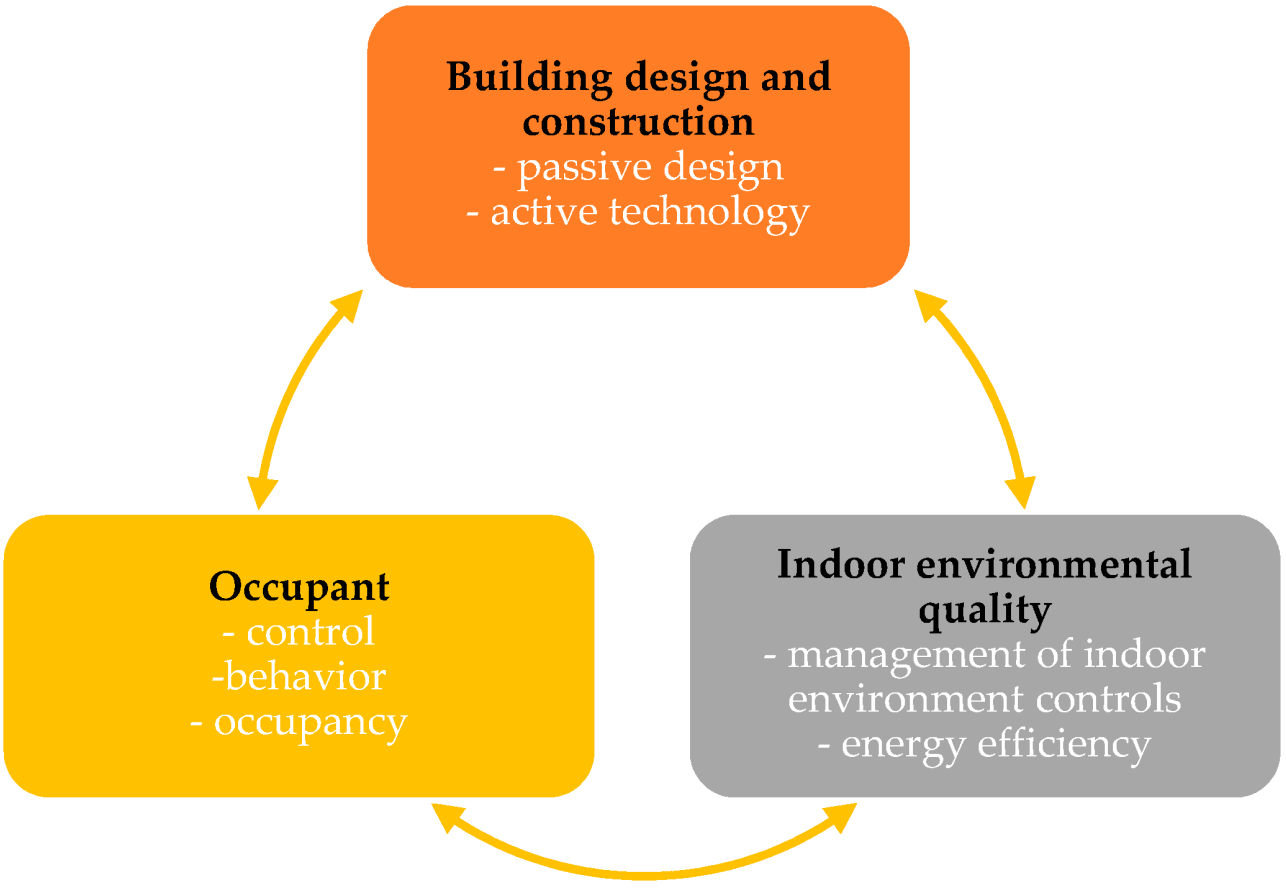
Data were collected through a combination of surveys and semi-structured interviews. The survey instrument included validated scales to assess IT integration, user perception, and hospital performance. The surveys were administered electronically or in paper format, depending on participant preferences. Semi-

structured interviews were conducted with a subset of participants to gather in-depth insights into their perceptions and experiences related to IT integration and its impact on hospital performance.

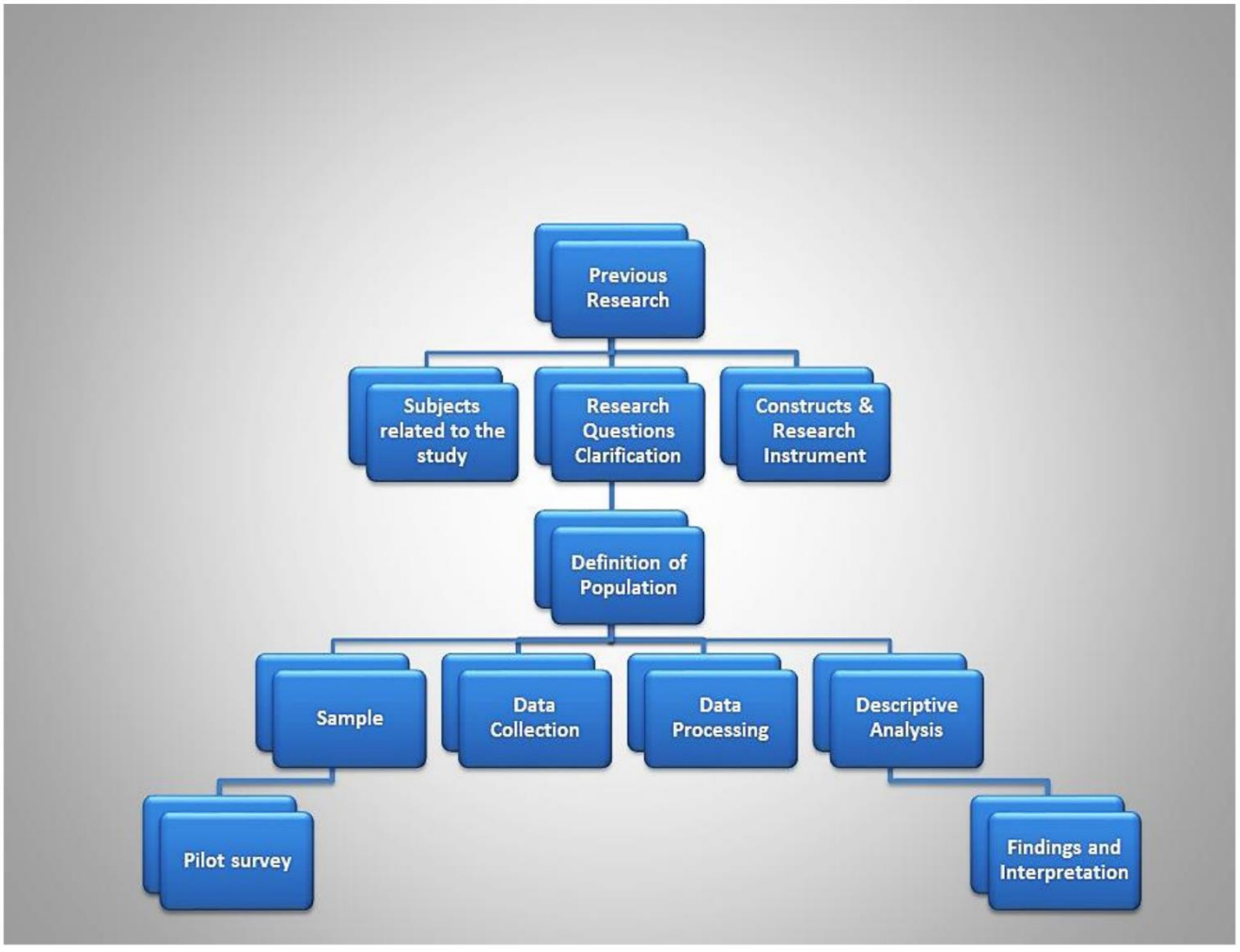


The survey instrument consisted of multiple sections, including demographic information, IT integration measures (e.g., technology infrastructure, system functionality), user perception measures (e.g., perceived usefulness, ease of use), and hospital performance measures (e.g., patient care quality, operational efficiency). Likert-type scales and open-ended questions were used to capture both quantitative and qualitative data.

Quantitative data from the surveys were analyzed using descriptive statistics, including means, standard deviations, and percentages, to characterize the level of IT integration, user perception, and hospital performance in the sampled hospitals. Inferential statistics, such as correlation analysis and regression modeling, were employed to examine the relationships between variables and test hypotheses regarding the mediating role of user perception in the relationship between IT integration and hospital performance.



Qualitative data from the interviews were analyzed using thematic coding techniques to identify recurring themes and patterns related to participants' perceptions and experiences with IT integration. These qualitative insights were integrated with the quantitative findings to provide a comprehensive understanding of the dynamics between IT integration, user perception, and hospital performance in Kenyan public hospitals.



This study adhered to ethical guidelines for research involving human participants. Informed consent was obtained from all participants, and their confidentiality and privacy were ensured throughout the study. Participants were assured of their right to withdraw from the study at any time without consequence.

By employing a mixed-methods approach, this study seeks to uncover the complex interplay between IT integration, user perception, and hospital performance in Kenyan public hospitals. Through rigorous data collection and analysis, we aim to generate insights that can inform evidence-based strategies for optimizing IT implementation and enhancing healthcare delivery in the region.

RESULTS

The results of this study revealed several key findings regarding the interplay between information technology (IT) integration, user perception, and performance in Kenyan public hospitals. Quantitative analysis indicated a significant positive correlation between IT integration and hospital performance, suggesting that higher levels of IT integration were associated with better performance outcomes. Additionally, user perception was found to mediate the relationship between IT integration and hospital performance, with positive perceptions enhancing the impact of IT on performance.

Qualitative analysis of interview data provided deeper insights into the factors influencing user perception and its role in shaping the effectiveness of IT initiatives. Positive user

perceptions were associated with factors such as perceived usefulness, ease of use, and organizational support for IT adoption. Conversely, negative perceptions were often linked to issues such as inadequate training, technical challenges, and resistance to change.

DISCUSSION

The findings of this study underscore the importance of considering user perception in the design and implementation of IT systems in Kenyan public hospitals. Positive user perceptions not only facilitate the adoption and utilization of IT but also amplify its impact on hospital performance. Therefore, efforts to promote positive user perceptions, such as providing comprehensive training, offering technical support, and fostering a culture of innovation, are essential for maximizing the benefits of IT integration.

Furthermore, the mediating role of user perception highlights the need for a holistic approach to IT implementation that considers both technological and human factors. While investing in IT infrastructure is important, attention must also be paid to user experience and organizational readiness to ensure successful implementation and optimization of IT systems.

CONCLUSION

In conclusion, this study provides valuable insights into the dynamics of IT integration, user perception, and performance in Kenyan public hospitals. By uncovering the mediating role of user perception, we have identified opportunities to enhance the effectiveness of IT initiatives and improve healthcare delivery in the region. Moving forward, policymakers, healthcare administrators, and IT professionals should collaborate to develop strategies that prioritize user experience and promote positive perceptions of IT among healthcare professionals and administrators. By unlocking the dynamics of IT integration, user perception, and performance, we can pave the way for more efficient, effective, and patient-centered healthcare delivery in Kenyan public hospitals.

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